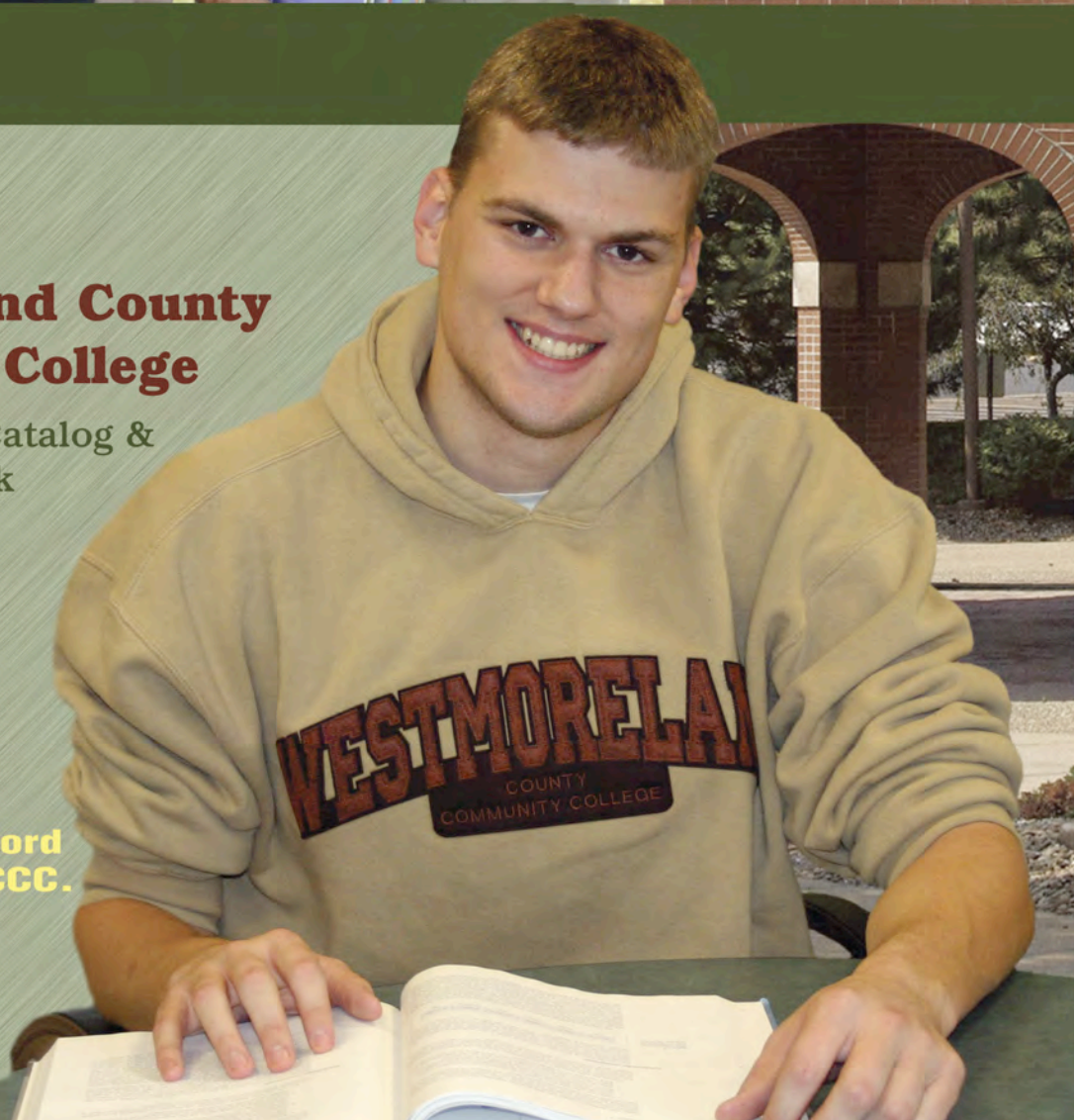
Westmoreland County Community College

2007-08 College Catalog & Student Handbook



You can afford success with WCCC.

A Message from the President

Congratulations! The fact that you are exploring Westmoreland County Community College, our academic programs and services tells me a lot about you. For instance, I know that you have made a decision to make postsecondary education a part of your life which in turn will better your future, and grow your intellectual and employability skills. We are honored that you are considering or have chosen WCCC as your postsecondary educational provider.

We are committed to you and your educational pursuits. Our faculty and staff stand ready to assist you to become all that you can be. We pledge to challenge and support you and to provide an outstanding educational curriculum to help you reach your dreams. You may be considering an associate degree, diploma, certificate, or just choosing to get your feet wet by taking a course or two. Whatever your goal at this stage in your life, we are ready to walk the path of success with you.

As a WCCC student, you can select from a variety of degree, diploma and certificate programs. We offer 55 associate degree programs, 10 diploma programs and 41 certificate programs that can provide you with the education and skills needed to enter the workforce immediately upon graduation. Or, you can enroll in our associate in arts degree program which parallels the first two years of a bachelor's degree and then transfer your credits to a four-year university. Articulation agreements with numerous colleges and universities will help to ease the transfer process.

We are pleased to offer a new associate degree program in radiology technology beginning this fall. The program includes hands-on instruction in our new radiology lab and clinical experience in various off-campus locations that provide radiologic imaging services. The program is recognized by the American Registry of Radiologic Technologists (ARRT) and students who successfully complete the program will be eligible to sit for the ARRT national certification exam.

Postsecondary education is not easy, nor should it be. As citizens of this great county and region, you are the leaders of tomorrow. Some of you are leaders of today. Leadership and citizenship are the cornerstones of our great country and we are all faced with living in an increasingly complex and complicated technological world. The challenges to our globe are significant and call for our very best thinking and problem-solving capabilities.

At WCCC we are committed to providing a curriculum, be it a course, program, or degree, that will challenge you intellectually and cultivate your problem-solving skills. We want you to learn how to learn, how to investigate problems and reach viable solutions. This process calls for hard work and commitment. We are committed to modeling these attributes as we work with you. We are confident that you will challenge yourself, grow in significant ways and become all that you can be.

Thank you for trusting us to be a part of your significant life journey.

Sincerely,
Steven C. Ender, Ed.D.

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Telephone Directory

Admissions Office	724-925-4077
Bookstore	724-925-4174
Campus Children's Center	724-925-4156
Continuing Education	724-925-4107
Counseling	724-925-4051
Disabled Student Services	724-925-4051
Division Offices	
Computer Technology/Business	724-925-4004
Public Service/Humanities/ Social Sciences	724-925-4046
Health Professions/Biology	724-925-4029
Technologies/Culinary Arts/ Mathematics/Sciences	724-925-4176
Education Centers	
Alle-Kiski	724-335-8110
Bushy Run	724-327-8090
Greene County	724-627-3464
Indiana County	724-357-1404
Laurel	724-539-3390
Mon Valley	724-379-4119
Public Safety Training Center	724-872-2447
Financial Aid	724-925-4063
Health/Fitness Center	724-925-4244
Learning Assistance Center	724-925-4135
Library	724-925-4101
Placement Testing	724-925-4051
Registration	724-925-4204
Student Activities	724-925-4055
Student Placement	724-925-4054
Student Records	724-925-4069
TDD	724-925-4297
Transfer Services	724-925-4059
Tutoring	724-925-4135
Veteran's Services	724-925-4056

For other WCCC offices call 724-925-4000.

2007-2008 Academic Calendar

Fall 2007

Classes begin	Aug. 23
Labor Day (college closed)	Sept. 3
No classes	Oct. 2, 25
Thanksgiving recess	Nov. 21-24
Last day for student-initiated withdrawal	Dec. 8
Last day of classes/final exams	Dec. 19

Spring 2008

Classes begin	Jan. 10
No classes	Jan. 21, March 19-22 & March 25
Last day for student-initiated withdrawal	April 19
Last day of classes/final exams	May 7
Commencement	May 8

Summer 2008

1st 5-1/2-week and 11-week classes begin	May 19
Memorial Day (college closed)	May 26
1st 5-1/2-week classes end	June 24
2nd 5-1/2-week classes begin	June 25
Independence Day (college closed)	July 4
2nd 5-1/2-week and 11-week classes end	July 30

Philosophy

Westmoreland County Community College, a publicly supported institution, offers a broad range of programs and services to meet the educational needs of the community. The college offers academic programs which parallel the first two years of a baccalaureate degree program, comprehensive occupational programs which prepare students for employment in a broad array of technical fields, a strong core of general education which prepares students to live and work in an increasingly complex and diverse society, and developmental education, which enables students to overcome academic deficiencies in order to be successful in college-level courses.

As a responsible and responsive member of the Westmoreland County community, the college invites business, industry, and community leaders to participate in the development and review of programs and courses to ensure that WCCC provides an up-to-date curriculum that will address the county's needs for well-educated workers.

The college provides a strong dedicated faculty who are committed to student success. In turn, WCCC expects students to commit time and energy to their course work in order to be successful.

The college also offers a variety of noncredit courses to meet short-term educational goals as well as to provide leisure and recreational activities for people of all ages.

Mission/Vision/Values

MISSION

WCCC improves the quality of life of everyone we touch through education, training and cultural enrichment.

VISION

WCCC is a learning-centered college focused on student success, a catalyst for economic growth, a leader in workforce development, and a hub for cultural and artistic experiences.

VALUES

WCCC has a framework of cultures and values that embraces:

1. **Commitment to Teaching and Learning** (personal attention, individual choices, academic excellence, adaptive, promotes curiosity)
2. **Accountability** (responsibility, stewardship of resources, empowerment, results-oriented)
3. **Diversity** (respect for self and others, inclusion, value uniqueness)
4. **Collaboration and Cooperation** (teamwork, community partnerships)
5. **Social Responsibility** (promote active interest, awareness of world, being a good steward)
6. **Integrity** (honesty, ethical standards, dedication)
7. **Innovation** (creativity, commitment to growth, forward thinking)

Goals

Westmoreland County Community College is committed to these goals:

Providing quality curricula and educational opportunities and continual upgrading of its instructional capabilities,

Providing a curriculum that meets the needs of its students and provides them with the skills necessary to participate fully in a 21st century world,

Providing excellent physical facilities for the educational programs and the services that the college provides,

Supporting student development and helping students succeed in their educational programs and in reaching their educational goals,

Expanding its linkages within its entire service area, including businesses, industries, other educational entities, and community organizations,

Providing the technology and the systems necessary to manage and support informational requirements of staff and students,

Enhancing its image and becoming more visible to the public it serves,

Employing effective and efficient resource development and allocation based on sound planning, and

Providing a sense of community throughout the organization.

ACCREDITATION/AFFIRMATIVE ACTION

Westmoreland County Community College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3642 Market Street, Philadelphia, PA 19104, 267-284-5000. The Commission on Higher Education is an accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

Programs at the college are approved by the Pennsylvania State Department of Education for veteran's educational benefits. In addition, the following programs carry specific accreditation/approval by certifying/accreditation organizations:

- The Baking and Pastry program, Culinary Arts programs and Restaurant/Culinary Management program are accredited by the ACF (American Culinary Federation) Accrediting Commission, a specialized accrediting agency recognized by the Council for Higher Education Accreditation.
- The Dietetic Technician program is accredited by the Commission on Accreditation/Approval for Dietetics Education (CAADE) of The American Dietetic Association, a specialized accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.
- The Dental Assisting and Dental Hygiene programs are accredited by the Commission on Dental Accreditation of the American Dental Association, a specialized accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.
- The Medical Assisting Program and the Surgical Technology Program are accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), on recommendation of the Curriculum Review Board of the American Association of Medical Assistants Endowment (AAMAE). Commission on Accreditation of Allied Health Education Programs, 35 East Wacker Drive, Suite 1970, Chicago, IL 60601-2208, 312-533-9355
- The Practical Nursing Diploma Program and Associate Degree Nursing Program are fully approved by the Pennsylvania State Board of Nursing. The Associate Degree Nursing program is accredited by the National League for Nursing Accrediting Commission, 61 Broadway, 33rd Floor, New York, NY 1006, 800-669-1656, www.nlnac.org - for achievement of quality and excellence in nursing education.

This catalog reflects the most current information about Westmoreland County Community College and does not constitute a contract between the student(s) and WCCC. The college reserves the right to amend any provisions or requirements at any time. Admission to WCCC acknowledges notice and acceptance of the college's reservation of this right.

Notice of Nondiscrimination

Westmoreland County Community College will not discriminate in its educational programs, activities or employment practices based on race, color, national origin, sex, sexual orientation, disability, age, religion, ancestry, union membership or any other legally protected classification. Announcement of this policy is in accordance with state law including the Pennsylvania Human Relations Act and with federal law, including Titles VI and VII of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, Section 503 and 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, and the Americans with Disabilities Act of 1990. Inquiries should be directed to the Affirmative Action Officer (presently Dr. Mary Stubbs), Westmoreland County Community College, 501 Founders Hall, Youngwood, PA 15697, 724-925-4097.

WCCC Profile

Founded: 1970

Location: Youngwood, Pa., approximately 6 miles south of Greensburg, off Route 119

Phone: 724-925-4000

Internet: www.wccc.edu

Enrollment: approximately 5,986 full- and part-time students which range in age from 17 to 75

Programs: 55 associate degree, 10 diploma, and 41 certificate programs with options that prepare students for careers or transfer to baccalaureate degree programs at four-year institutions.

Degrees Granted: associate in arts degree, associate in applied science degree, diploma and certificate

Campus: The main campus is located in a rural setting a short distance from the New Stanton Interchange of the Pennsylvania Turnpike off Route 119. The 80-acre campus comprises four buildings. Founders Hall, Commissioners Hall and Science Hall house general classrooms, science laboratories, computer and desktop publishing laboratories, multimedia technology laboratory, culinary arts laboratory with dining facility, dental hygiene clinic, radiology technology laboratory, greenhouse, theater, art gallery, library, Student Services, Learning Assistance Center, Campus Children's Center, bookstore, student lounges, cafeteria, gymnasium, racquetball courts, fitness center, and indoor running track. The Business & Industry Center contains classrooms, laboratories, offices and training facilities for area employers. In addition, there are athletic fields for baseball, softball and other sporting activities. All buildings are easily accessible to the physically disabled. There are also designated parking spaces for the physically disabled. The WCCC smoking policy designates all buildings at the Youngwood campus and the education centers as smoke-free.

Off-Campus Centers: To provide access to quality educational opportunities to all area residents, the college operates six off-campus education centers - Alle-Kiski Center, New Kensington; Bushy Run Center, Export; Greene County Center, Waynesburg; Indiana County Center, Indiana; Laurel Center, Latrobe; and Mon Valley Center, Belle Vernon - that serve all of Westmoreland, Greene and Indiana counties.

The WCCC Public Safety Training Center, located near Smithton, provides public safety training for fire, police and emergency services responders.

Faculty: 86 full-time teaching faculty and approximately 300 part-time faculty

Academic Calendar: two 15-week semesters (fall, spring); two 12-week Late-Start sessions (fall, spring); and 5-1/2- and 11-week summer sessions. Classes are conducted weekdays, evenings and Saturdays.

Directions - Youngwood Campus:
From Greensburg and Route 30: Take Route 119 South into Youngwood. At the second traffic light, Depot Street, turn left and proceed one mile to the college, located on the right.

From the New Stanton interchange of the Pennsylvania Turnpike (Exit 8/75): Take Route 119 North into Youngwood. At the fourth traffic light, Depot Street, turn right and proceed one mile to the college, located on the right.

WCCC Education Centers

WCCC maintains education centers that serve all of Westmoreland, Greene and Indiana counties. Day and evening classes are conducted at the Alle-Kiski Center, New Kensington; Bushy Run Center, Export; Greene County Center, Waynesburg; Indiana County Community College Center, Indiana; the Laurel Center, Latrobe; and the Mon Valley Center, Belle Vernon. In addition, videocassette courses and online courses are offered to students at these sites. Student services such as counseling, advising and financial aid are also available at scheduled times. Students can also pay tuition and fees and purchase textbooks at the centers.

Alle-Kiski Education Center

The Alle-Kiski Center is located a mile from Valley High School in New Kensington. It houses traditional classrooms, a distance learning classroom, a computer laboratory, a multipurpose room, offices and a student lounge. 724-335-8110

DIRECTIONS: From Washington Township: Take Route 780 West toward New Kensington. Approximately 3.5 miles past the Alcoa Center, turn right onto East Hill Drive. Turn left at the WCCC sign.

From New Kensington: Take Route 366 toward Valley High School, turn right onto Route 780 East (Powers Drive). Proceed to the top of the hill, bear left and continue approximately 1 mile. Turn left onto East Hill Drive. Turn left at the WCCC sign.

Bushy Run Education Center

Located off Route 22 in Penn Township, the Bushy Run Education Center houses traditional classrooms, a distance learning classroom, a computer laboratory, a science laboratory, a student lounge and offices. 724-327-8090

DIRECTIONS: From Greensburg: Take Route 66 North to Route 22 heading west toward Pittsburgh. At the third traffic light, turn left onto Mellon Road and proceed approximately 1.5 miles to the Bushy Run Center on the left.

From Murrysville: Take Route 22 East toward Delmont. Turn right at the intersection onto Mellon Road and proceed 1.5 miles to the Bushy Run Center.

Greene County Education Center

The Greene County Center is located in the new EverGreene Technology Park in Franklin Township. Classes are conducted days and evenings at the center and evenings at various high schools. 724-627-3464

DIRECTIONS: From I-79 north or south: Take Waynesburg (Exit 14) onto Route 21 East. Proceed to the first traffic light and make a left onto Progress Drive. Proceed left. Make the first right curve which will take you to EverGreene Technology Park. WCCC is located on the right side of the building.

From 21 West: Proceed under I-79 and follow the directions given above.

From 21 East: Make a right onto Progress Drive at the light just after the Greene County Airport and follow the directions given above.

Indiana County Community College Center of WCCC

The Indiana County Community College Center is located at 45 Airport Road, Indiana, near the Jimmy Stewart Airport. Easily accessible from routes 286 and 119, the center contains a computer lab, a nursing lab, three classrooms, an office and a student lounge. 724-357-1404

DIRECTIONS: From Punxsutawney: Take Route 119 South to the Clymer/Indiana Exit and exit at Clymer Route 286. At the end of the exit ramp, turn right onto Airport Road. Continue approximately 100 yards and turn left into the parking lot.

From Blairsville: Take Route 119 North to the Clymer/Indiana Exit and exit at Clymer Route 286. At the end of the exit ramp, turn right onto Airport Road. Continue approximately 100 yards and turn left into the parking lot.

Laurel Education Center

The Laurel Education Center is housed in the former Kennametal facility at Seventeen Lloyd Avenue, Latrobe. The center contains three computer classrooms/labs, an electronic classroom, a natural science classroom/lab and student lounges. 724-539-3390

DIRECTIONS: From Route 30: Take Route 981 North toward Latrobe. (Route 981 becomes Lloyd Avenue.) The center is located on the right just before crossing the Loyalhanna Creek Bridge.

From Route 22 - New Alexandria: Take Route 981 South and turn right onto Latrobe Derry Road at the traffic light. Cross the Loyalhanna Creek Bridge. (Route 981 becomes Lloyd Avenue.) The center is the second building on the left.

Mon Valley Education Center

The Mon Valley Education Center, located off Route 51 on Fells Church Road, Belle Vernon, houses traditional classrooms, a distance learning classroom, a computer laboratory, offices and a student lounge. 724-379-4119

DIRECTIONS: From Route 51 North: Make the first left turn at the traffic light past Bill's Golfland. Proceed on Fellsburg Road approximately 1/2 mile to the traffic light and turn right at the light; the Mon Valley Center is on the right.

From Route 51 South: Make the right turn at the United Mine Workers Headquarters. Proceed 1 mile and turn left into the college parking lot before the traffic light.

Public Safety Training Center

Designed for firefighter, police and emergency services personnel, the first phase of this center, located in South Huntingdon Township, was completed in October 2003. The facility features a six-story tower with an attached 2 1/2 story residential building that simulates industrial, commercial and residential structures. Also on site are a classroom/administration building, class A live burn building, outdoor lethal weapons range, rubble pile, outdoor training props and pond.

DIRECTIONS: From I-70 W (New Stanton and PA Turnpike, exit 75) - Take I-70 West 8 miles from New Stanton to the Smithton exit (no. 49). Exit, and turn left at the stop sign. At the next stop sign turn right onto Fitz Henry Road. Proceed 1 mile and turn right onto Reduction Road. Proceed 1 mile to the PSTC entrance on the left.

From I-70 E (Belle Vernon and I-79) - Proceed on I-70 to the Smithton exit (no. 49). Exit and turn left at the stop sign. Continue straight onto Fitz Henry Road. Proceed 1 mile and turn right onto Reduction Road. Proceed 1 mile to the PSTC entrance on the left.

ADMISSIONS

High school graduates or those who hold a GED high school equivalency are granted admission to the college. Individuals 18 years of age and older who have not earned a high school diploma or a GED may be admitted to the college if they can demonstrate their ability to benefit from the college experience. After successfully completing 30 credits at WCCC, they may be eligible to petition for a Commonwealth Secondary School Diploma. Forms for Commonwealth Secondary School Diplomas are available at the Department of Education, GED, Harrisburg.

Requirements for Admission

1. Submit the Application for Admission with a $10 nonrefundable processing fee. Students returning to WCCC after stopping out for two (2) consecutive non-summer terms must reapply to the college but no fee is required. The form appears on the last page of this catalog.
2. Upon receipt of the Application for Admission, the Admissions Office will send information on placement testing and registration.
3. Take the placement test and register for classes.
4. In order to complete the admission process, students must request that their high school send an official copy of their transcript to the WCCC Admissions Office. GED holders must submit their GED certificate with the Application for Admission. Financial aid processing cannot be completed without these transcripts.
5. International students must complete this form and submit official copies of secondary school transcripts (translated in English), TOEFL scores of 500 or above, a statement of financial support for the entire period of enrollment, and provide documentation of immigration status.

Admission to Specific Programs

In addition to the general requirements, some programs have specific admission requirements. The requirements for the dental assisting, dental hygiene, nursing, medical assistant, radiology technology and surgical technologist programs are listed on the pages describing these programs. (See program index pages 23-24.)

Students who do not meet the requirements for a specific program may become eligible after completing appropriate course work.

Full- and Part-time Students

Full-time students register for 12 or more credits a semester; part-time students register for fewer than 12 credits a semester.

Since many programs and courses fill to capacity well before the beginning of each semester, early inquiry is advised.

Students interested in attending WCCC are encouraged to contact the Admissions Office at 724-925-4077 or 1-800-262-2103 for more information, an application, an interview, or a campus tour.

Early Enrollment for High School Students

High school students who are 16 years or older and in their junior or senior years may earn college credit at WCCC by demonstrating potential for college-level work and securing a recommendation from their high school guidance counselors or principals.

Tech Prep Programs

The Westmoreland/ Fayette Tech Prep Consortium was established to develop articulated Tech Prep programs. Tech Prep programs combine the last two years of academic and technical course work in high school with a minimum of two years of postsecondary education.

A goal of the Tech Prep Consortium is to encourage students to undertake course work in high school that will prepare them for study in associate in applied science degree programs without duplication of secondary course work and without the need for developmental study at WCCC. Westmoreland and Fayette County high schools, career and technology centers, the community college and local employers participate in the consortium.

Tech Prep programs offered at WCCC are identified by the Tech Prep logo on the corresponding catalog page.

Tech Prep maintains articulation agreements with Central Westmoreland Career and Technology Center, Connellsville Area Career and Technology Center, Eastern Westmoreland Career and Technology Center, Fayette County Area Vocational-Technical School, Northern Westmoreland Career and Technology Center, Lenape Area Vocational-Technical School, Greene County Area Vocational-Technical School, Mon Valley Career and Technology Center, Western Area Career and Technology Center and North Fayette Area Vocational Technical School. Articulation agreements are on file at the secondary school's guidance counselor office or at the WCCC Tech Prep Office. A time shortened or enhanced program of courses are two options available through the Tech Prep articulation agreement. The time shortened option gives the student college credit for course work completed at the secondary level that equates to WCCC courses identified in the agreement. The enhanced program will provide students with a broad base of skills and knowledge in preparation for their future workplace. The program options are for students who have completed the requirements of the articulated program on the secondary level. Application for advanced placement must be submitted to the Tech Prep Office at WCCC.

Additional information is available from high school guidance counselors or the WCCC Tech Prep Office at 724-925-4266.

ADMISSIONS

Credit for Prior Learning

Students may receive academic credit for prior learning enabling them to begin college work at advanced levels and shorten the time required to obtain degrees, diplomas or certificates. Credit for prior learning may be granted by any of the following methods: transfer credit, courses taken at area career and technology centers, College Level Examination Program, credit by examination, and credit for experiential learning.

Credit can be granted only for those courses which are listed in the WCCC catalog. The courses must meet the requirements of the program in which the student is enrolled. Credits obtained for prior learning are recorded with a grade of CR and are not used in the computation of grade point average. These credits are not applied to VA benefits, Selective Service deferment, Social Security benefits or scholastic honors. A maximum of 30 credits may be awarded to students for all credits earned for prior learning.

The award of credit for prior learning is subject to the approval of the appropriate faculty member and dean. Students who are interested in obtaining credit for prior learning should contact the Admissions Office for specific details.

Transfer of Credit

Credits earned at other regionally accredited colleges may apply to programs at WCCC. Students must complete an Application for Admission and a Request for Transfer of Credits to WCCC form, and must have official transcripts sent directly to the WCCC Admissions Office with descriptions of courses to be considered for transfer.

Evaluation and acceptance of credits completed 10 years prior to the transfer request date shall be made at the discretion of the college.

CLEP — College Level Examination Program

Credit may be awarded to students who achieve satisfactory scores on the CLEP general examinations and selected CLEP subject examinations.

A list of acceptable CLEP tests and scores is available at the WCCC Admissions Office. Test scores must be sent directly to the Admissions Office from the College Entrance Examination Board.

Credit by Examination

Students may demonstrate mastery of WCCC courses and obtain credit by taking examinations except for the following:

1) developmental courses
2) a course previously completed
3) a course which is a prerequisite for a course previously completed

To apply, students must complete the Petition for Credit by Examination form which is available in the division offices and at the Student Information Center.

A $30 fee is charged for each exam. Passing the exam is recorded on the transcript with CR. Failure to pass the exam is not recorded. Credit by exam may be attempted only once per course.

Credit for Career & Technology Center Courses

Students may receive credit for approved occupational courses completed at area career and technology centers. Contact the Admissions Office for a list of approved courses.

Advanced Placement Examinations

Credit may be awarded to students who attain a score of three or higher on the College Board Advanced Placement Examination.

Credit for Military Training

Credit may be awarded to students who take the Defense Activity for Nontraditional Education Support (DANTES) exam for skills acquired during military service. Also, military courses may be submitted for review on an individual basis. Credit is normally awarded based upon the recommendations of the American Council on Education.

Credit for Experiential Learning

Those who believe that they have acquired college level competencies through life and work experience may seek credit through portfolio development. Students are required to develop written documents which describe their competencies and relate them to WCCC courses.

The award of credit is based upon assessment of the student portfolio. A maximum of 21 semester hours of credit for experiential learning may be applied to associate degree graduation requirements. A $75 fee is charged for assessment of each course. Specific details regarding credit for experiential learning may be obtained from the dean of learning resources/special projects; call 724-925-4097.

Placement Testing

All new students who enroll on a full-time basis (12 or more credits) are required to take placement tests. Students who have completed an associate or bachelor's degree from an accredited community college or university may be exempt upon receipt of college transcripts. Applicants for nursing and other allied health programs may be required to complete placement tests regardless of degrees completed.

All new part-time students who plan to pursue a degree are required to complete placement tests. New part-time students who do not plan on pursuing a degree or diploma are not required to take placement tests. However, placement tests are required prior to enrolling in mathematics or English courses and any course with a prerequisite of English 080. Furthermore, nondegree students are required to take placement tests after the completion of 12 credits in order to continue their enrollment. Visiting high school students are required to take placement tests.

On the basis of the placement tests, students will be advised to enroll in appropriate freshman courses, pursue developmental course work prior to taking other

credit courses, or consider noncredit academic preparation before enrolling in credit course offerings at the college.

Call the Student Development Office at 724-925-4121 to schedule the placement test. There is no fee for this testing.

Registration

Dates for course registration are printed in the class schedule for each session. Registration begins approximately April 1 for the fall sessions, November 1 for the spring sessions and December 1 for the summer sessions. Class schedules are available at the Youngwood campus and the education centers. Schedules can be requested by calling 724-925-4077 or 1-800-262-2103. Class schedules are also available online at my.wccc.edu.

New students who have completed the Application for Admission will receive a letter from the college explaining the placement testing, advising and registration procedures. Counselors are available to assist students in planning course work for the first semester. Returning students receive letters which specify the dates for registration and identify the students' academic advisers as well as office hours of the adviser.

Students should become familiar with the required courses for their programs of study found in this catalog on pages 36-148.

Students intending to transfer should consult the catalog of the college they wish to attend or, if possible, consult with a counselor at that college. Transfer students may also receive assistance from a WCCC counselor and/or use materials in the transfer library in the Student Development Office.

All students, new and returning, have several opportunities to register for classes and receive academic advising. Students may register by phone, mail, fax or in person at the Student Information Center. Returning students may also register online at my.wccc.edu. Telephone registrations are accepted from 8 a.m. to 5 p.m., Monday through Friday. Students may register in-person from 8 a.m. to 8 p.m. Monday through Thursday and 8 a.m to 5 p.m., Friday. Registration procedures are printed in all the class schedules.

Auditing Courses

Auditing is the practice of registering for a course, paying the associated tuition and fees, and waiving the receipt of credit and a letter grade.

Students may audit a course with the approval of the instructor. Forms for this purpose are available in the Student Information Center and must be submitted no later than the end of the second week of a semester. Those currently receiving financial aid should contact the Financial Aid Office before changing a course from credit to audit. Courses taken for audit are not included in determining academic load for veteran certification or eligibility for financial aid. Course audits are indicated on student transcripts with the designation "AU."

Cross Registration

The college has cross-registration arrangements with the University of Pittsburgh at Greensburg (UPG) and Seton Hill University (SHU). This allows WCCC full-time students to register for courses at these institutions and for students at UPG and SHU to register for courses at WCCC. The student must be enrolled full-time for a minimum of 12 credits and in good academic standing. A student may cross-register only for courses which meet degree requirements and which are approved by the institution from which the student will graduate. Students must complete a Cross Registration form available in the WCCC Admissions Office and obtain appropriate signatures for approval.

Change of Schedule

During the first week of each course, students may add or drop courses by completing the official forms. Classes may be added after this time only with permission of the instructor.

Students should note that adding courses may increase the amount due for tuition and fees, while dropping courses may make them eligible for refunds. Those receiving financial aid should contact the Financial Aid Office to determine if their aid award is affected by the change in their schedule.

Students are fully responsible for completing adds and drops according to instructions and making certain that changes in their schedules will not adversely affect their progress toward graduation.

Change of Major

Students who wish to change their major program must complete a Change of Major Form in the Student Information Center. Course substitutions approved under the former major must be resubmitted for approval in the new program of study.

Withdrawal From Courses

Withdrawal from a course becomes official only after a Student Withdrawal Request is processed by the Records Office. Students who wish to withdraw from a course or courses should request Student Withdrawal Request forms at the Student Information Center in Founders Hall. Forms are also available at the education centers.

- Students who drop classes within the first three weeks of the semester will be dropped from the course and no record of the course will appear on the transcript.
- Students who officially withdraw from a course after the third week but prior to the last day of the seventh week of the semester will receive a "W" on the transcript indicating withdrawal from the course.
- Students who withdraw after the seventh week but before the end of the fourteenth week of the semester will receive a W or F grade as determined by the instructor.
- Withdrawals are not permitted after the fourteenth week.
- Students who initially attend class but, due to poor attendance, are not making satisfactory progress, may be recommended for withdrawal by the instructor after the third week and prior to the end of the twelfth week of the semester. Students recommended for withdrawal are notified by the Records Office and have 10 calendar days to contact their instructors. Students failing to respond within 10 days will be considered as withdrawing themselves and will receive a "W" on the transcript.

WCCC Graduate Transfers

Westmoreland County Community College maintains transfer articulation agreements with many four-year colleges and universities in the region. The agreements denote program requirements and course equivalencies to facilitate student transfer to senior institutions. In consultation with a counselor, students can use the agreements as guides to plan a program of studies most appropriate for transfer to a senior institution.

Westmoreland County Community College graduates have successfully transferred to many colleges and universities. Some of these colleges and universities include the following:

Art Institute of Pittsburgh
Bethany College
California University of Pennsylvania
Carlow University
Carnegie-Mellon University
Chatham College
Cheyney University
Clarion University of Pennsylvania
Cornell University
Davis & Elkins College
Duquesne University
Edinboro University of Pennsylvania
Fairmont State College
Franciscan University of Steubenville
Franklin University
Gannon University
Geneva College
Indiana University of Pennsylvania
Kent State University
La Roche College
Lock Haven University of Pennsylvania
Logan College of Chiropractic
Ohio State University
Pennsylvania College of Technology
Pennsylvania State University
Point Park University
Robert Morris University
Saint Francis University
Saint Vincent College
Salem International University
Seton Hill University
Shippensburg University of Pennsylvania
Slippery Rock University of Pennsylvania
Temple University
Thiel College
University of Phoenix
University of Pittsburgh - Greensburg
University of Pittsburgh - Johnstown
University of Pittsburgh - Main Campus
Washington & Jefferson College
Waynesburg College
Westminster College
West Liberty State College
West Virginia University
Wheeling Jesuit College
Youngstown State University

Academic Passport

The Academic Passport is a transfer policy approved by the Pennsylvania State System of Higher Education for community college students who transfer to state system universities. The program eases the process for WCCC students transferring to these universities, such as California University of Pennsylvania and Indiana University of Pennsylvania. Under the provisions of the program, WCCC students earning an associate in arts degree are assured that they will be accepted into the Pennsylvania state system university of their choice. The courses completed as part of the A.A. degree will be accepted and, to the extent possible, applied toward the fulfillment of their bachelor's degree requirements at the receiving university. The student's acceptance is to the university and not necessarily to a specific program or curriculum. Students who plan to transfer are encouraged to consult with a WCCC transfer counselor to plan their course selection and educational program.

EXPENSES AND FINANCIAL AID

Tuition and Course Fees

Tuition and course fees are charged on a per credit basis. Reduction in local and/or state funding may result in an additional tuition charge. ***Tuition and fees listed in this catalog are subject to change by the Board of Trustees.*** When changes are made, notice will be given as far in advance as possible.

The examples below represent basic tuition and fees for full-time and part-time study. For full-time status, students must be enrolled for a minimum of 12 credits. Some programs and courses require additional fees.

County Resident Students

FULL-TIME (15 credits)

Tuition, per semester	$1,095
Fees	
1. Student services fee	45
2. Technology fee	75
	$1,215

PART-TIME

Tuition, per credit	$73
Fees, per credit	
1. Student services fee	3
2. Technology fee	5
	$81

Out-of-County Students

FULL-TIME (15 credits)

Tuition, per semester	$2,190
Fees	
1. Student services fee	45
2. Technology fee	75
3. Capital fee	90
	$2,400

PART-TIME

Tuition, per credit	$146
Fees, per credit	
1. Student services fee	3
2. Technology fee	5
3. Capital fee	6
	$160

Out-of-State and Foreign Students

Tuition, per credit	$219
Fees, per credit	
1. Student services fee	3
2. Technology fee	5
3. Capital fee	6
	$233

Other Course Related Fees

1. Lab fee
   (Most laboratory courses have a fee. The fees range from $5 to $20.)
2. Videocassette Course fee, per credit . . $10

Special Fees

1. Application fee for new students (one time).. $10
2. Graduation fee *(payable in the semester the student expects to graduate)*
   Degree and diploma programs $15
   Certificate programs $10
3. Transcript fee (each) $2
   (First 3 official transcripts are free)
4. Returned check fee $25
5. Credit by exam, per course $30
6. Assessment of Experiential Learning, per course $75

Payment Policy

The college accepts payment in the form of cash, check, and MasterCard or Visa at the main campus or any of the education centers. Check and credit card payments may also be made by mail. In addition, credit card payments may be made by telephone or online. Checks should be made payable to WCCC, and the student's social security number must be written on the check. You remain obligated for all tuition and fees unless you officially drop during the refund period.

Students cannot register for classes, receive grade reports, obtain transcripts, or graduate until all financial obligations to the college have been satisfied. If payment is not received by the due dates established each term, your registration is subject to deletion.

Refund Policy

All refunds are calculated from the official starting date of a course.

For courses meeting for only one week or less — Students who officially drop before a course starts may be eligible to receive a 100% refund of tuition and fees. There are no refunds after this date.

For courses two-weeks through four-weeks — Students who officially drop through the first three days of a course may be eligible to receive a 100% refund of tuition and fees. There are no refunds after this date.

For courses five-weeks through nine-weeks — Students who officially drop through the first week of a course may be eligible to receive a 100% refund of tuition and fees. There are no refunds after the first week of a course.

For courses of 10 weeks or longer — Students who officially drop through the first week of a course may be eligible to receive a 100% refund of tuition and fees. Students who officially drop during the second week of a course may be eligible to receive a 60% refund of tuition. There are no refunds after the second week of a course.

Students must contact the Registration Center during the refund period to officially drop a course. Those who do not officially drop remain obligated for all tuition and fees.

Expenses and Financial Aid

TuitionPay Payment Plan

Offered by WCCC in conjunction with Sallie Mae, the TuitionPay Monthly Payment Plan lets students pay educational expenses interest-free over a period of four months. To qualify for the TuitionPay Monthly Payment Plan, students must be enrolled in six or more credits per semester and pay a $35 enrollment fee. The due dates for the four monthly payments are published in the credit class schedule each semester. The payment plan is offered during the fall and spring semesters.

For more information, call the WCCC Admissions Office, 724-925-4077.

Financial Aid

Financial aid is a grant, scholarship, loan or employment opportunity which assists students with their educational expenses. Most financial aid is awarded on the basis of financial need, or the difference between the cost of education (tuition, fees, books, transportation, etc.), and the amount parents and/or students can contribute toward these expenses.

WCCC participates in several state and federal financial aid programs. (See the chart on page 13.)

Basic Eligibility Criteria

In order to be eligible for many forms of financial aid a student must:

- Be a citizen or eligible noncitizen of the United States.
- Be enrolled in a degree, diploma or certificate program (audited courses do not count toward enrollment status).
- Have a high school diploma, GED or demonstrate the ability to do college level work based upon placement test scores.
- Be registered with Selective Service if a male.
- Be in good academic standing and maintain satisfactory progress according to college, state and federal regulations.

How to Apply

1. Complete the Free Application for Federal Student Aid (FAFSA) and mail it to the processor as soon as possible after January 1. In order for the Financial Aid Office to receive the application information from the processor, students must include WCCC as one of the colleges they plan to attend. WCCC's Title IV code is 010176.

2. Submit tax returns, corrections and any other requested documentation to the Financial Aid Office in a timely manner.

3. To ensure timely consideration, students should have paperwork on file in the Financial Aid Office by April 15 for the upcoming fall term.

The application is available online at www.fafsa.ed.gov.

Minimum Standards of Academic Progress for Financial Aid

To continue to receive financial aid from the government-funded programs listed below, students must maintain financial eligibility and satisfactory academic progress in their courses of study according to the standards and practices of the granting agency and the college.

The standards include a quantitative measure (minimum standards of completion) as well as qualitative measure (grade point average). Students who earn a grade point average below 2.0 may lose financial aid for future semesters and should check with the Financial Aid Office.

The minimum standards of completion are as follows:

Pell Grant and College Work-Study — Students must successfully complete 70% of the credits they attempt.

PHEAA Grant — Students must successfully complete at least 24 credits per academic year if full-time and 12 credits if part-time.

Stafford Loan/PLUS — Students must successfully complete 70% of the credits attempted per year. In addition, they must successfully complete 30 credits each year in order to qualify for level two in the loan program.

After 12 credits are earned, academic progress will be reviewed in order to determine future eligibility for Pell or PHEAA grants. Eligibility for loans and work-study will be based on a student's past academic performance at the college. Academic performance is reviewed after each semester or loan term. Courses with an I (incomplete), W (withdrawal) or an F grade will be considered as courses attempted but not successfully completed. Financial aid may be awarded for repeated courses only if the original grade in the course is below a "C." Financial aid will not be awarded for courses repeated more than once.

Financial aid is awarded for courses that count toward a student's degree, diploma or certificate. Students who complete more than 150% of their original program credits will have their aid eligibility reviewed. Aid may not continue to pay for multiple programs.

Total Withdrawal from Term and Receiving Financial Aid

Students receiving federal financial aid who begin a semester but later totally withdraw before 60% of the term is over will be subject to a special proration of how much aid they are eligible to receive. The aid included in this special calculation are the Federal Pell Grant and Federal Stafford Loan. It is based on the date the student officially withdraws from all classes for that term. This may cause students to owe money back to the school or to the Department of Education, or to both. It is recommended that before a student withdraws from all courses in a term they check with the Financial Aid Office.

FINANCIAL AID PROGRAMS

TYPE OF AID	SOURCE	AWARD AMOUNTS	WHO IS ELIGIBLE TO APPLY	HOW TO APPLY	WHEN TO APPLY
Pell Grant	Federal Govt.	Yearly award may range from $400 to $4,050 as determined by a federal formula. Based on financial need.	Any student intending to enroll in a credit course at WCCC	Complete Free Application for Federal Student Aid. Must reapply each year. www.fafsa.ed.gov	After January 1/ at least 2 months before semester
PHEAA Grants PA Higher Educ. Assistance Agency	State of PA	Range from $200 to $2,400 per year. Amount determined by state formula. Based on financial need.	Full-time or part-time (at least 6 credits) student enrolled in two-year associate degree program, a U.S. citizen, PA resident, high school grad or GED recipient	Complete Free Application for Federal Student Aid. Must reapply each year.	By May 1
Stafford Loan (Formerly Guaranteed Student Loan Program)	Federal Govt. State of PA Local Banks	Maximum amounts, $3,500 first-year student and $4,500 second-year student. Amounts are requested by student and subject to approval by Financial Aid Office, bank and PHEAA.	Student must be enrolled at least half-time (6 credits), a U.S. citizen and a PA resident	Complete Free Application for Federal Student Aid and Master Promissory Note.	3 months before semester
PLUS (Parents Loan for Undergraduate Students)	Local Banks	Up to cost of education minus other aid. Student must be a "dependent" as defined by IRS.	Students enrolled at least half-time who pass the the necessary credit approval	Forms available from PHEAA and select local banks	2 months before semester
WCCC Work-Study Program	WCCC	Determined by WCCC Financial Aid Office	Any student enrolled at least half-time (6 credits)	Complete a student employment application	Apply any time
Federal College Work-Study Program	Federal Government	Variable; based on unmet financial need	Any student intending to enroll in a credit course at WCCC	Complete Free Application for Federal Student Aid. Must reapply each year.	Apply any time
State Vocational Rehabilitation Educational Assistance	State & Federal Government	Variable; determined by Office of Vocational Rehabilitation (OVR)	Mentally, physically or emotionally disabled students intending to enroll in a credit course at WCCC	Contact local OVR for application forms	3 months before semester
Scholarships	WCCC Foundation	Variable; see listings on pages 15 and 16 or contact the WCCC scholarship coordinator, 724-92504215	Based on criteria of scholarship	Application available in WCCC Financial Aid Office	Varies by scholarship; as soon as possible
Veterans Benefits	Veterans Administration	Variable; depends on program	Based on VA program eligibility requirements	Applications available from WCCC Financial Aid Office	2 months before semester

SCHOLARSHIPS

Scholarships

Listed on the following pages are a number of scholarships available at WCCC. Interested students must submit a WCCC Scholarship Application Form. Students may inquire about scholarships at any time, but preference will be given to students who apply by May 1 unless an earlier date is indicated. Application forms are available from the WCCC Financial Aid Office, high school counselors or online at www.wccc.edu.

ACADEMIC SCHOLARSHIPS

Code	Scholarship	Donor	Amount	Eligibility Criteria
S001	President's	WCCC	• Full tuition for two years • Renewable for second year based on 3.0 GPA • Multiple awards	• 2008 Westmoreland County high school graduates • Top 10 percent of their class • High school transcript required
S002	Trustees' Meritorious	WCCC	• Full tuition for two years • Renewable for second year based on 2.5 GPA • Multiple awards	• 2008 Westmoreland County high school graduates • At least a cumulative 3.0 GPA • High school transcript required
S003	Student Recognition	WCCC Education Foundation	• Tuition and fees for up to 15 credits per term for two terms • Multiple awards	• Second-year WCCC student/ 24 credits • Minimum 3.5 GPA • Financial need may be reviewed • Three letters of recommendation
S048	Phi Theta Kappa Academic Excellence	Phi Theta Kappa Fraternity and Friends	• $500/term • Multiple awards	• Academic history • Requires short essay and two letters of recommendation
S056	Shirley Jones Music Award	WCCC	• Full tuition • Renewable for second year with 3.0 GPA	• 2008 Westmoreland County high school graduates • Top 10 percent of their class • High school transcript required • Music major

GENERAL SCHOLARSHIPS

Code	Scholarship	Donor	Amount	Eligibility Criteria
S008	WCCC Foundation Award	WCCC Education Foundation	• Varies • Multiple awards	• Based on financial need*
S023	Humanitarian Award	WCCC Education Foundation	• $250/term • Renewable for second year	• Westmoreland County resident • Minimum 3.5 GPA • Requires short essay stating need
S029	M. Suzanne Weightman	Friends of Suzanne Weightman	• $500/term	• Must have completed 12 credits • Minimum 3.0 GPA

SPECIAL CRITERIA SCHOLARSHIPS

Code	Scholarship	Donor	Amount	Eligibility Criteria
S051	Alumni Association	WCCC Alumni Association	• $250/term • Multiple awards	• Full- or part-time WCCC student • Preference given to family members of WCCC alumni
S021	Scott Brewer Early Child Care Club	Early Childhood Education Club	• Varies • Multiple awards	• Based on financial need* • Used in WCCC child care center
S057	Grant E. and Betty J. Cooper	Grant E. and Betty J. Cooper	• $250/term	• Must be a Mt. Pleasant High School graduate
S027	Eberly Family Fund	Eberly Family Fund	• $500/term • Multiple awards	• Preference given to Fayette Washington, and Greene county students

SCHOLARSHIPS

SPECIAL CRITERIA SCHOLARSHIPS *(CONTINUED)*

Code	Scholarship	Donor	Amount	Eligibility Criteria
S037	Elliott Company Employee	Anonymous Donor	• Varies based on funds available • Multiple awards	• Must be a past or current Elliott Company employee or spouse, child or grandchild of employee • **Requires separate application**
S25	Dr. Martin Luther King, Jr. Meritorious	WCCC Black Awareness Committee	• Full-time $250/term • Part-time $125/term	• African-American student • Based on academic history, community service and financial need • Requires short essay
S035	Never Enough Boutique	Never Enough Boutique and Friends	• $750/term	• Women who need training to enter or re-enter the workforce • Based on financial need* • Requires short essay stating need
S022	New Alexandria Lions Club	New Alexandria Lions Club	• $250/term • Multiple awards	• Priority given to New Alexandria Lions Club service area
S055	New Beginnings	Dr. Steven C. and Karen G. Ender and Friends	• $500/term	• Must be a first-time student age 24 or older • Must be enrolled at least part-time • Based on financial need*
S017	New Stanton-Youngwood Rotary Club	New Stanton-Youngwood Rotary Club	• $500/term	• Priority to students residing in the New Stanton or Youngwood area
S006	Oliver K. Painter Memorial	Oliver K. Painter	• $250/term • Renewable for second year based on GPA	• Must be a Mt. Pleasant or Southmoreland high school senior (Awarded on a rotating basis)
S012	Greensburg Kiwanis Club	Greensburg Kiwanis Club	• $500/term	• Must be a senior from Greensburg Salem, Greensburg Central, Hempfield or Latrobe high school

PROGRAM SPECIFIC SCHOLARSHIPS

Code	Scholarship	Donor	Amount	Eligibility Criteria
Business Management				
S053	Dr. Thomas Lloyd Memorial	Friends of Dr. Thomas Lloyd	• $100/term	• Must have completed 12 credits • Awarded to the applicant with highest GPA
Career Technology				
S054	Career Technology	WCCC Education Foundation and Friends	• $750/term • Multiple awards	• Must be enrolled in a Tech Prep Program • Based on financial need*
Criminal Justice				
S039	E.E. "Duck" Cooley	WCCC Criminal Justice Fraternity	• $200/spring term	• Second semester • Minimum 3.0 GPA
S040	Eli Award	WCCC Criminal Justice Fraternity	• $200/fall term	• Returning student • Minimum 3.0 GPA • Active member of CRJ Fraternity
S043	Ever Vigilant	Point Security Company, Inc.	• $250/spring term	• Must have completed at least 9 credits • Minimum 3.0 GPA • Priority given to a veteran or active member of Reserves or National Guard

SCHOLARSHIPS

PROGRAM SPECIFIC SCHOLARSHIPS *(CONTINUED)*

Code	Scholarship	Donor	Amount	Eligibility Criteria
Criminal Justice continued				
S042	Michael J. Kakos Memorial	Community Foundation of Westmoreland Co.	• Varies - spring term	• Mt. Pleasant High School graduate • **Requires separate application**
S007	Cecil Yates Memorial	Friends and relatives of Cecil Yates	• $200/term	• Returning student • Based on financial need*
Culinary Arts				
S058	Donald D. Mateer Foundation Scholarship	Donald D. Mateer Foundation	• $1,425/term • Renewable second year	• New student • Based on financial need* • Minimum 2.75 GPA to renew
Early Childhood Education				
S046	Agnes Kakos Memorial	Community Foundation of Westmoreland Co.	• Varies - spring term	• Mt. Pleasant High School graduate • **Requires separate application**
Graphic Design				
S059	Gregory Hricenak Graphic Design	Anonymous	• $125/term	• Minimum 3.2 GPA
Horticulture				
S047	George Rusinko Memorial	Community Foundation of Westmoreland Co.	• Varies - spring term	• Mt. Pleasant High School graduate • **Requires separate application**
Math or Science Major				
S052	Dr. Daniel Krezenski Scholarship	Friends of Dr. Daniel Krezenski	• $125/term	• Full-time student • Based on academic history
Nursing				
S009	Iva Jones King Memorial	Family of Iva Jones King	• $250/term	• First-year nursing student from Yough or Belle Vernon school district • Based on financial need*
S060	Roylene Penska	Family of Roylene Penska	• $250/term • Multiple awards	• Returning student • Minimum 3.0 GPA
S044	Carol Pacelli Memorial	Community Foundation of Westmoreland Co.	• Varies - spring term	• Must complete first year of nursing program • **Requires separate application**
S045	Agnes Rusinko Memorial	Community Foundation of Westmoreland Co.	• Varies - spring term	• Mt. Pleasant High School graduate or resident of Mt. Pleasant Township
S061	The Thorne Group	The Thorne Group	• Varies	• Recent Greensburg Salem High School graduate • **Requires separate application**
Office Technology (Medical) and Medical Assisting				
S049	Beverly Diehl Memorial	Daughters and friends of Beverly Diehl	• $200/term	• Returning student • Preference given to nontraditional students • Based on financial need*
Visual Arts Major				
S041	Gregory Hricenak Visual Arts	Family and friends of Greg Hricenak	• $350/term	• Minimum 2.5 GPA • Based on financial need*

Based on financial need - requires completion of the Free Application for Federal Student Aid (FAFSA)

Unit of Credit

A credit hour is the unit of credit students earn at WCCC. One credit hour usually corresponds to one 50 minute class meeting each week for 15 weeks. A course worth three hours of credit, therefore, usually requires three 50 minute class meetings plus additional work outside the class each week.

Grades and Grade Points

Letter grades are assigned to inform students how well they have learned the material in their course(s). For each letter grade there is a corresponding number called grade points. The table below shows the grades and their grade point equivalents.

Grade	Academic Achievement		Grade Points
A	superior	=	4.0
B	considerable	=	3.0
C	satisfactory	=	2.0
D	marginal	=	1.0
F	unsatisfactory	=	0.0
W	withdrawn	=	0.0
I	incomplete	=	grade to be computed upon completion of course
AU	audit	=	no credit

The Grade Point Average (GPA) is computed by multiplying the point value of each grade earned by the number of semester hours of the course for which the grade is received and then dividing by the total number of hours of work attempted. Courses numbered below 100 are not calculated into the grade point average.

Example of Grade Point Average Calculation

Grades		Grade Point Value		Semester Hours of Credit		Grade Hours
C	=	2.0	x	3	=	6
B	=	3.0	x	4	=	12
A	=	4.0	x	3	=	12
C	=	2.0	x	3	=	6
B	=	3.0	x	3	=	9
				16		45

45 grade points ÷ 16 semester hours = 2.81 grade point average or GPA

Academic Forgiveness

Students who return to Westmoreland County Community College after a four-year absence may petition that the credits with D and F grades earned during their previous enrollment at the college be removed from the computation of the cumulative grade point average. This petition may be made only after completion of 12 new credits with a grade point average of 2.0 or higher for these 12 credits. Once approved, previously earned credits with D and F grades are not used for calculating the student's grade point average, however, they remain on the transcript with an appropriate notation. Students should meet with a counselor or their faculty advisor to initiate the process.

Repeating Courses

Students may repeat courses in which they receive D or F grades; however only the grade and credits earned the second time will be included in the calculation of grade point average. Such courses may be repeated only once. Any exception to this policy must be submitted to the vice president for academic affairs and student services for approval.

Incomplete Grades

"Incomplete" is appropriate when the student has completed most of the course requirements, and has contracted to make up the remaining or outstanding work. The grade of "incomplete" is given only at the discretion of the instructor if, in the instructor's judgment, the student has furnished satisfactory evidence that the work cannot be completed because of illness or other extenuating circumstances. The incomplete (I) automatically changes to an F grade if work is not completed by the date specified by the instructor, not to exceed one semester.

Grade Appeal

All final grades posted on a student's transcript at the end of a semester are considered correct unless a question is raised within one year of its recording. Students should address inquiries or appeals to the instructor of the course within one year from the end of the courses.

Attendance

Students are expected to attend all class sessions and to complete all course work as specified in the course syllabus. Should students require an extended absence, the instructor should be notified. If the faculty member cannot be reached, the director of student development should be notified. Students unable to meet the performance requirements of the course should complete an official course withdrawal form. Students should see page 10 of this college catalog for withdrawal procedures. Poor attendance may result in class withdrawal initiated by the instructor after the third week and prior to the end of the twelfth week. In programs regulated by external agencies, attendance policies may differ from the policies above. Students enrolled in such programs should consult with their faculty advisors or deans.

Student Illness

Students must contact their instructors if they expect to miss three or more consecutive class days because of illness or other circumstances beyond their control. Students must also disclose the reason for the absence. If a faculty member cannot be reached, the director of student development should be notified.

Standards of Academic Progress

All students are expected to maintain satisfactory academic progress. Satisfactory academic progress requires maintaining a cumulative grade point average of 2.0 or higher. Failure to maintain satisfactory academic progress may result in probation status or suspension.

ACADEMIC INFORMATION

Statement of Purpose

Standards of academic progress are established to assist students in reaching their highest educational goals. Academic standards procedures provide ongoing assistance to facilitate student academic success.

Early Intervention

Students with less than 12 credits and a grade point average below 2.0 will be identified and encouraged to meet with a counselor to discuss their academic progress. These students are not on probation.

Academic Probation

Students whose cumulative grade point average is below 2.0 after completing 12 but less than 36 credits will be placed on academic probation and will be subject to the following restrictions:

1. Enrollment is limited to 12 credits
2. Students must meet with a counselor to discuss their academic progress and develop an education plan before registering for classes

Students will remain on academic probation until a cumulative grade point average of 2.0 is achieved. Students on probation may be limited in their participation in student athletics and activities.

Students who believe that they should not be on academic probation may appeal their status by submitting a written request to the office of the director of student development.

Academic Suspension

Students who have completed 36 or more credits and have been on academic probation for three consecutive semesters will be suspended. Suspended students may not enroll in credit courses for one semester. Should students wish to enroll in a subsequent semester, they are subject to the following restrictions:

1. Students must meet with a counselor to review their educational goals, develop strategies for improvement, and complete an educational contract approved by the director of student development.
2. Failure to maintain a 2.0 grade point average after completing 12 additional credits will result in suspension for a full academic year.
3. Students suspended for a full academic year will be required to apply for readmission to the college.

Appeal Process

A student who has been notified of academic suspension may appeal the suspension by completing the appropriate form available from the office of the director of student development. The appeal must be submitted to the office of the director of student development who will make a determination on the appeal.

Readmission

Those students suspended for one year must submit a written request at least six weeks prior to the semester in which they wish to enroll. An appointment with a counselor must be made to establish an educational plan.

Learning Resources Center

The Learning Resources Center supports the instructional process by providing library and audiovisual services.

Library

The library collections are designed to support the college curricula and provide materials for leisure reading. The library is a depository for federal and state documents providing access to a wealth of significant information. A qualified professional staff is available at all times to assist students in the use of library materials. The library also contains coin-operated copiers for student use. All library materials are included in the WCCC online catalog which is accessible via CampusConnections. Students also have access to the wide variety of online databases via CampusConnections.

Student Access to Library Resources

All WCCC students have access to the library resources at the Youngwood campus. In addition, all WCCC students may borrow materials from area libraries which participate in PALINET, a consortium to which the college belongs. However, the program of undergraduate interlibrary borrowing is governed by the following procedure which is strictly enforced.

1. Students must complete an interlibrary borrowing form which is signed by one of several designated members of the library staff. The form is good for a one-week period only.
2. The student must present this form at the library from which he/she wishes to borrow with a valid WCCC Student ID card.
3. The student is responsible for returning borrowed items to the lending library. If materials are not returned (and any overdue fines paid), the student will not receive grades or transcripts from WCCC until these obligations are satisfied.

Most academic libraries in this area are members of PALINET and participate in the undergraduate interlibrary borrowing program. More information on participating libraries is available in the WCCC library.

WCCC also participates in the Westmoreland County Academic Libraries Reciprocal Borrowing Program which provides the opportunity for WCCC students to borrow library materials from the following libraries: Penn State-New Kensington, Saint Vincent College, Seton Hill University, and the University of Pittsburgh at Greensburg. Students must present a valid ID card when requesting borrowing privileges or reference assistance.

Media Services

Media Services provides an extensive collection of films, slides, filmstrips, videotapes, and audiocassettes to support the instructional process at WCCC. In addition, viewing areas are available for students and faculty. All audiovisual materials are represented in the WCCC library online catalog.

Learning Assistance Center

Located in rooms 560 and 565 of Founders Hall, the Learning Assistance Center offers WCCC credit students comprehensive services which are essential to academic success.

Tutorial services are offered through the Learning Assistance Center (LAC) at no cost to students. The coordinator works closely with a staff of professional and peer tutors who provide individual and small group tutoring in most courses. The LAC also offers a writing lab, a communications lab, study skills assistance, and computer-assisted instruction.

Videocassette course, placement testing, and make-up testing are also administered in the LAC. Students are required to show the test monitor a WCCC student photo ID card. All tests are filed by the course instructor's last name; therefore, students should know their instructor's name prior to coming to the LAC. Following these procedures will help to provide an efficient and effective testing service.

Upon authorization of the state of Pennsylvania, the LAC has been designated as an official GED Testing Center. These state-approved centers are established to provide high quality, secure testing facilities to adults who wish to earn a GED. Exams are given to registered candidates on a monthly basis.

Cooperative Education

Cooperative education is a work experience program designed to supplement formal classroom study with supervised on-the-job learning experiences in college-approved work locations. Academic credit may be earned for work experience if the student's job is related to the field of study or vocational goals. Cooperative education is offered in most career fields. Interested students should contact the cooperative education coordinator at 724-925-4058 the semester prior to planned participation.

Information Technology Center

The Information Technology Center provides the college with a powerful and flexible academic computing and communications environment. A college-wide computer network links the Youngwood campus with the education centers providing access to an online library circulation system, several special-capacity workstations, WCCC web services and the Internet. Using a combination of outside services such as Blackboard and CampusConnections, as well as dedicated lines and equipment, the college offers online courses linking the campus to Internet functions.

Instructional computer facilities include 29 microcomputer classrooms and 14 personal computer laboratories, 20 electronic classrooms and six distance education rooms at the Youngwood campus and the education centers. Each microcomputer classroom provides file sharing and access to a laser printer and the Internet, while the personal computer laboratories provide specialized software, tutorial support and open computer usage. The purpose of the laboratories is to help students gain practical experience in microcomputer applications and learn how computers are used within particular disciplines. Programs available include word processing, e-mail, spreadsheets, database management, graphics, several programming languages, file transfer, remote login, World Wide Web, tutorials, drafting and several operating systems. The labs are available to all registered students and are open more than 65 hours per week during the regular semesters.

The Information Technology Department maintains the infrastructure of WCCC, including telephones, networks and distance education.

Academic Honors

President's List/Dean's List

At the end of each semester, full-time students who have achieved a semester grade point average (GPA) of 4.0 are named to the President's List; full-time students who obtain a GPA between 3.50 to 3.99, with no D or F grades are named to the Dean's List. Developmental courses are not included in the calculation of the GPA.

Part-time students who have achieved a GPA of 4.0 are named to the President's List. The GPA is calculated upon the completion of at least 12 credits; 24 credits; 36 credits; and 48 credits.

Part-time students who have achieved a GPA of 3.5 to 3.99 with no D or F grades are named to the Dean's List. The GPA is calculated upon the completion of at least 12 credits; 24 credits; 36 credits; and 48 credits.

Graduation Honors

Students who have earned an overall grade point average of 4.0 are graduated "with highest honors." Students who have earned an overall grade point average of at least 3.75 and below 4.0 are graduated with "high honors." Students who have earned an overall grade point average of at least 3.50 and below 3.75 are graduated "with honors."

Recognition of Achievement

The college encourages student achievement in scholarship and leadership and formally honors students at commencement and other suitable occasions. Students who have distinguished themselves through academic excellence are honored annually at the Academic Awards Dinner. The Student Awards Ceremony recognizes those who have excelled in cocurricular activities.

Graduation Requirements

To be eligible for graduation, all students must:

- Complete the requirements for their program of study as listed in the catalog in effect at the time of initial enrollment or any subsequent catalog including the current one, provided the catalog does not exceed six years prior to the anticipated graduation date.
- Earn at least 30 credits of degree requirements or 15 credits of diploma requirements at WCCC under faculty instruction and evaluation. This does not include transfer credits, credits awarded for CLEP and other standardized exams, credit by exam or portfolio.
- Maintain a grade point average of 2.0 or better in all course work required and maintain a 2.0 average or better in the major.
- Fulfill all financial obligations to the college.
- File an application for graduation at the Student Information Center and pay the required nonrefundable graduation fee. Those who fail to meet graduation requirements must notify the Records Office to reactivate their graduation files.

Note that developmental courses (those courses which have course numbers below 100) carry no quality points, may not be used to meet graduation requirements and will not transfer to all senior institutions.

Additional Degrees

Students may earn more than one associate in applied science degree from WCCC subject to the following conditions:

1. Two or more degrees may be earned, provided the specific requirements listed in the curriculum for each program of study are met.
2. Multiple degrees may be pursued concurrently or sequentially.
3. Only one associate in arts degree may be earned.

Learning Outcomes Assessment at the Course, Degree and Institutional Levels

Specific learning outcomes are essential components of all credit courses and are delineated in the course outline and syllabus. Students should expect to receive the course outline and syllabus at the start of each class. Assessment of the learning outcomes throughout the course provides the basis to determine the extent to which student learning has occurred. Procedures for evaluation of learning outcomes are delineated in the course syllabus. Questions regarding course learning outcomes should be first addressed to the instructor of the course and then the appropriate division dean.

Student learning outcomes at the program level are delineated in the respective competency profiles for each degree, diploma and certificate. Students achieve competency of the outcomes by satisfactory completion of all program course requirements.

Institutional learning outcomes have been adapted from *Learning Outcomes for the 21st Century* and have been approved as the framework for general education at WCCC. Students are expected to achieve competency in all of these outcomes through satisfactory completion of the general education course distribution and program course requirements for all associate degree programs.

Institutional learning outcomes include:

Communication *(reading, writing, speaking, listening)*

1. Students will be able to read, understand and apply information from written materials.
2. Students will be able to illustrate through their writing, the ability to interpret and explain their own ideas as well as those of others.
3. Students will be able to write and speak, using correct grammar.
4. Students will be able to interpret ideas expressed verbally and apply these ideas to classroom discussion and assignments.

Computation *(understanding and applying mathematical concepts and reasoning, analyzing and using numerical data)*

1. Students will be able to interpret and apply information from graphs, charts and tables.
2. Students will interpret and apply statistical data.
3. Students will be able to integrate and apply mathematical skills to solve quantitative problems.

Community *(citizenship, diversity/pluralism, local community, global environmental awareness)*

1. Students will demonstrate citizenship through active participation in service learning projects.
2. Students will demonstrate an understanding and appreciation of cultural diversity.
3. Students will demonstrate an understanding and appreciation of a global society.
4. Students will demonstrate an awareness of environmental issues.
5. Students will be able to identify responsibilities of citizenship at the local, state and national levels.
6. Students will be able to compare and contrast different forms of governments and economic systems.

Critical Thinking *(analysis, synthesis, evaluation, decision making, creative thinking)*

1. Students will be able to collect, analyze and evaluate information to support decision making.
2. Students will be able to analyze and solve problems.
3. Students will formulate accurate conclusions based on data.
4. Students will be able to demonstrate the ability to support arguments with relevant evidence.
5. Students will use divergent thinking for problem-solving applications.

Information Literacy Skills *(collecting, analyzing, and organizing information for a variety of sources)*

1. Students will demonstrate an awareness of the variety of information resources for use in a learning environment.
2. Students will be able to differentiate the relative merit of information sources.
3. Students will be able to locate, retrieve and evaluate electronic and printed materials for research and information purposes.
4. Students will be able to demonstrate the ability to present information in an appropriate, organized manner.
5. Students will be able to develop the skills to collect and analyze relevant information.

Interpersonal *(teamwork, relationship management, conflict resolution, workplace skills)*

1. Students will be able to work effectively in groups.
2. Students will be able to resolve interpersonal conflicts in a respectful and positive manner.
3. Students will demonstrate appropriate workplace protocol.
4. Students will develop and will be able to utilize effective listening skills.
5. Students will appreciate the value of others' viewpoints and contributions.

Personal *(ability to understand and manage self, management of change, learning to learn, personal responsibility, aesthetic, responsiveness, wellness)*

1. Students will demonstrate time-management skills.
2. Students will be able to identify and demonstrate socially acceptable behavior in academic and professional settings.
3. Students will demonstrate an awareness of healthy lifestyles.
4. Students will demonstrate an understanding of, and commitment to, academic integrity.

Technology *(computer literacy, Internet skills, retrieving and managing information via technology)*

1. Students will be able to recognize the need to adapt to changing technology.
2. Students will be able to develop an awareness and appreciation of the impact of computer technology in the contemporary world.
3. Students will be able to demonstrate computer literacy through the effective use of technology.
4. Students will be able to integrate technology into their program of study.
5. Students will be able to compose and transmit a document.

Act 48

WCCC is an approved provider for Act 48 courses/training in the Commonwealth of Pennsylvania. Educators wishing to take WCCC courses to fulfill Act 48 requirements should check their course selection with their school district. When registering at WCCC, students should identify their interest in Act 48 by completing the Act 48 Continuing Professional Education Career Verification form.

Transcripts

Students who want transcripts of their academic records should complete the Transcript Request Form at the Student Information Center at least one week before the transcript is needed. Transcripts are issued only at the request of the student; official transcripts are sent directly to the institution or agency specified. All financial obligations to the college must be paid before a transcript is issued.

Transcript/Grade Report Abbreviations

In addition to grades, the following abbreviations may be found on the transcript and grade report.

GPA — Grade point average. A GPA is computed by multiplying the credits for each course times the grade points earned, adding the total and dividing by the total number of credits. A minimum overall GPA of 2.0 is required to graduate.

CR — Credit awarded. No grade points.

I — Incomplete. Indicates that the student has not completed all requirements for the course. The incomplete (I) automatically changes to an F grade if work is not completed by the date specified by the instructor, not to exceed one semester.

**** — Academic Forgiveness.** Credits and grade points not calculated in the overall GPA.

AU — Audit. No credit and no grade points.

W — Withdrawal. Indicates withdrawal by the seventh week of the semester or withdrawal, passing, after the seventh week. No grade points.

Z — No grade submitted. Indicates that instructor has not submitted a grade. No grade points.

Developmental Courses — Placement test results may require enrollment in developmental courses. These are courses numbered below 100. Grades in developmental courses are not calculated in the grade point average (GPA), and these courses are not applied to degree requirements for the associate in arts or associate in applied science degrees. Developmental courses are designed to help students learn the skills necessary for college work. By completing developmental courses, students will impvove their chances for success in their academic program.

Academic Information

Academic Guarantee

The WCCC board of trustees adopted the Academic Guarantee in July 2001 as an affirmation of the college's confidence in the quality of its programs and graduates. The Academic Guarantee provides up to 15 additional credit hours of course work tuition free for graduates of WCCC associate in applied science degree programs whose competencies do not meet the expectations of their employers. The guarantee, which is effective for students graduating in 2002 and beyond, stipulates that the alumnus must be employed full time in a position related to his or her field of study within one year of graduation. Following an employer's written notification of a graduate's lack of entry-level skills, WCCC will develop an educational plan to address the specific skill deficiency.

Delivery of Academic Programs

Courses in academic programs are taught via a variety of formats: traditional classrooms and laboratories; interactive videoconferencing, media-enhanced classrooms utilizing SmartBoard technology; and individualized learning experiences such as independent study, honors seminars, self-paced courses, videocassette courses and online courses.

Interactive Videoconferencing

WCCC offers courses using interactive video technology which links the Youngwood campus with the Alle-Kiski, Bushy Run, Greene County, Indiana County, Laurel and Mon Valley education centers or any combination of centers. The instructor teaches from various sites during the course of the semester; students can see, hear, and interact with students and with the instructor from all of the sites.

Online Courses

Online courses offer students the opportunity to take courses using their home computers or computers located in other sites such as public libraries or the WCCC computer labs. Students have the opportunity to do course work at times convenient to them. Interaction with the instructor, as well as with other students in the class, enhances and personalizes the learning experience.

Videocassette Courses

WCCC offers videocassette courses to meet the educational needs of students who find it inconvenient to attend classes. Students enrolled in these courses typically watch two half-hour lessons per week on television over a 15-week period. Videocassettes may be borrowed for viewing at home or viewed on campus in the Learning Resources Center. Instructors schedule at least two review sessions at the Youngwood campus. Student attendance at these sessions is optional. In addition, instructors are available for telephone consultation at specified times. For additional information, contact the dean of learning resources/special projects.

Self-Paced Courses

WCCC offers several courses in a self-paced format. Students selecting this option work independently and at their own pace within the start and end dates of the semester. Examinations in these self-paced courses are taken in the Learning Assistance Center at the WCCC Youngwood Campus or at-a-distance using the college's proctor procedure. Students meet with the instructor by appointment as needed.

Independent Study

Independent study courses allow students to pursue a special interest which is not offered as a regular course in the curriculum. The distinguishing differences between an independent study experience and a regular course are the degree of responsibility that the student assumes, the subject matter and the content of the study. Students are required to assume responsibility for most aspects of the learning process normally assumed by the instructor in a regular course.

To enroll in an independent study course, students must determine with an instructor a valid area of investigation and/or activity and propose a series of activities to complete the course requirements.

Honors Seminar

Honors Seminar is designed for students who have demonstrated academic excellence and have shown a high degree of motivation and interest in pursuing knowledge independently.

A student enrolled in the Honors Seminar is required to develop an intellectually challenging project which demonstrates outstanding academic achievement.

Each student also must select a faculty mentor to supervise and evaluate the project. In addition, Honors Seminar students meet throughout the semester to discuss the progress of their projects, receive peer evaluations and showcase their results at the conclusion of the semester.

PROGRAMS OF STUDY

ACCOUNTING

Accounting, AAS. 36
Computer Accounting and Tax Specialist, Certificate . . 37

ALLIED HEALTH

Dental Assisting, Diploma 82, 83
Dental Hygiene, AAS 84, 85
Dietetic Technician/Nutritional Services
Management, AAS 86
Medical Assisting, Diploma. 122
Nursing, AAS, Diploma 128-131
Radiology Technology, AAS 138-141
Surgical Technology, Diploma. 143, 144

BUSINESS

Business 45
Financial Management Option, AAS, Certificate . 46, 53
General Management Option, AAS, Certificate . . 47, 53
Human Resources Management Option, AAS,
Certificate 48, 54
Marketing Management Option, AAS, Certificate . . 49, 54
Real Estate Management Option, AAS, Certificate . . 50, 55
Small Business Management Option, AAS,
Certificate 51, 55
Diploma. 52
Electronic Commerce, AAS. 93

COMPUTER INFORMATION SYSTEMS

Computer Information Security, AAS, Certificate . . 57, 58
Computer Systems Electronics Technology, AAS 61
Computer Technology. 62
Networking Option, AAS, Certificate. 63, 70
Programming for the Enterprise Option, AAS. 64
Technical Support Option, AAS 65
Telecommunications Option, AAS 66
Computer Technology, Diploma 67
Database Application Development, Certificate 68
Fiber Optic Technologies, Certificate 69
Microcomputer Applications, Certificate. 68
PC Repair/A+, Certificate. 70
Programming, Certificate 71
Web Development, Certificate. 71
Electronic Commerce, AAS. 93

ENGINEERING SCIENCE AND INDUSTRIAL TECHNOLOGY

Architectural Drafting and Design, AAS 38
Bionanotechnology, AAS. 44
Computer Numerical Control
Technology, AAS, Certificate 59. 60
Computer Systems Electronics
Technology, AAS 61
Drafting and Design Technology, AAS
Computer Aided Drafting and Design/Computer
Aided Manufacturing Option. 88
Mechanical Drafting and Design Option. 89
Electronics Engineering Technology, AAS. 94
Engineering Technology, AAS. 95
Fire Science Technology, AAS,
Diploma, Certificate. 96-98
Heating, Ventilation, Air-Conditioning,
and Refrigeration, AAS, Certificate. 107- 108
Machine Technology, AAS, Certificate. 116, 117
Manufacturing Technology, AAS
Chemical Process Technology Option 118
Manufacturing Maintenance Apprentice Option . . . 119
Manufacturing Process Technology Option. 120
Nanofabrication Manufacturing Option 121
Welding Engineering Technology,
AAS, Certificate 147, 148

PROGRAMS OF STUDY

GRAPHIC AND WEB DESIGN

Commercial Art and Design, AAS 56
Graphic and Web Design 99
- Graphic Design Option, AAS, Certificate 100, 103
- Web Design Option, AAS, Certificate 101, 105
- Web Publishing Option, AAS 102
- Web Development, Certificate 105
- 2-D Animation, Certificate 104
- 3-D Art/Animation, Certificate 106

HORTICULTURE

Horticulture, AAS 109
Turfgrass Management, AAS 146

HOSPITALITY MANAGEMENT

Baking and Pastry, AAS, Certificate 39-43
Culinary Arts, AAS, Certificate 75-81
Dietetic Technician/Nutritional Services
- Management, AAS 86

Dining Room Management, Certificate 87
Hotel/Motel Management, AAS, Certificate 110-111
Restaurant/Culinary Management, AAS 142
Travel and Tourism, AAS 145

PUBLIC SERVICES

Criminal Justice, AAS 72
- Information Security Option, AAS 73
- Corrections Officer, Certificate 74

Early Childhood Education, AAS,
- Diploma, Certificate 90-92
- Early Childhood Director, Credential 92

Fire Science Technology, AAS,
- Diploma, Certificate 96-98

Human Services, AAS 112
Legal Assisting, AAS, Diploma 113, 114
Library Science, Certificate 115

LIBERAL ARTS AND SCIENCE (Transfer Options) *(All options lead to an AA degree.)*

Art 28
Biology 28
Business 28
Chemistry 29
Chiropractic 29
Communication 29
Computer Science/Information Systems 30
Criminal Justice 30
Engineering 30
English/Writing/Literature 31
Health and Physical Education 31
Health Professions 31
History 32
Humanities 32
Library Science 32
Mathematics 33
Physics 33
Political Science 33
Psychology 33
Sociology 34
Teacher Education 34
Undecided 34

MULTIMEDIA AND PHOTOGRAPHY

Multimedia Technology, AAS 123
Adobe Video Studio, Certificate 125
Apple Final Cut Studio, Certificate 125
Photography, AAS, Certificate 124, 126
Video/Television, Certificate 127

OFFICE TECHNOLOGY

Medical Administration Option, AAS,
- Certificate 133, 136

Medical Transcription, Diploma 134
Medical Coding, Certificate 136
Office Administration Option, AAS,
- Diploma, Certificate 132, 135, 137

ACADEMIC PROGRAMS

WCCC offers the associate in arts degree, the associate in applied science degree, diploma programs, and certificate programs.

Associate in Arts Degree (A.A.)

The associate in arts degree requires a minimum of 60 credits. All associate degree students are required to complete a core of 38-40 credit hours of general education courses, designed to broaden and enhance their educational experience, and 21-24 credit hours of transfer electives. The general education requirements are distributed over the areas of communications, humanities, social science, mathematics, natural science and computer science as outlined on page 26. The transfer electives may also be selected from the courses listed on page 25 or up to 15 of the 24 credit hours may be selected from courses listed on page 27. When selecting transfer electives, it is recommended that the student seek the guidance of a counselor or his/her academic advisor.

Associate in Applied Science Degree (A.A.S.)

The associate in applied science degree requires the completion of at least 60 credit hours. Students take 15 hours of general education, one computer technology course, and specific program courses. Many courses completed for the associate in applied science degree may transfer to a four-year college. However, some credits may not transfer. The transfer of credits earned in an A.A.S. degree depends on the senior institution's requirements.

Diploma and Certificate

Diploma programs require a minimum of 30 credit hours and are designed for students interested in specific career courses. Certificate programs consist of 15-23 credits and are specialized, short-term programs which focus on work force entry and/or development of specialized career skills.

General Education

All associate degree programs include general education course requirements. For the associate in arts degree, courses that satisfy general education are listed on page 26 by areas. Courses that satisfy general education requirements for the associate in applied science degree are listed by area on page 35.

The 21st Century Core Competencies, adopted from *Learning Outcomes for the 21st Century*, have been approved as the framework for General Education at WCCC.

Transfer to Four-Year Colleges and Universities

Westmoreland County Community College offers courses which parallel those offered at four-year colleges and universities during the freshman and sophomore years and lead to the baccalaureate degree. Therefore, it is possible to complete the first two years of a baccalaureate program at WCCC and transfer to a four-year institution. Students can be assured that with appropriate planning the transfer experience will be a successful one. The WCCC counseling staff or assigned academic advisor will help to develop a plan to make the transfer process smooth.

Students who plan to transfer should realize that it is usually not necessary to select a major until the sophomore year. This gives students some time to explore different areas of study during the freshman year. However, by the sophomore year students will want to select courses which meet the requirements of the program at the four-year college to which they plan to transfer.

If there is a senior institution being considered, WCCC will help students select the courses which will work best at that institution. If a student has not selected a four-year institution, the counseling center at WCCC has a large collection of college catalogs and other materials to help in the selection. Many senior institutions will visit WCCC to talk with prospective students. Once a major and a senior institution have been chosen, students are able to select the remainder of their courses with more specific requirements in mind.

Westmoreland County Community College offers the associate in arts (A.A.) degree which is designed for students planning to transfer. Suggested courses are listed on pages 26-34 for specific majors in baccalaureate programs. This list is not all inclusive and students should contact the four-year institution to which they plan to transfer to ensure compatibility with program requirements. Not all majors are listed; however, students who have not made decisions about majors or senior institutions can generally take courses that will transfer by using the course selections in general education areas (page 27).

Career degree (A.A.S.) programs prepare students for employment and therefore concentrate on job-related courses. A.A.S. degree students who decide to transfer to four-year colleges or universities may find some courses cannot be applied toward the baccalaureate degree. Transfer of credit to a baccalaureate program is not the primary purpose of career programs even though some courses may be acceptable as electives at a transfer institution.

Associate in Arts Degree (A.A)

Degree Requirements

The requirements of the associate in arts degree are:

- **38-40 semester hours of general education from the courses listed below.**
  To meet the general education requirement, 38 credit hours should be taken in the six areas designed below. Specific courses are listed for each area.

- **21-24 semester hours of transfer electives***
  Transfer electives may be selected from courses listed below or up to 15 credits may be chosen from courses listed on page 27.

I English 6 semester hours	II Humanities 9 semester hours (in 2 areas)		III Social Science 9 semester hours (in 2 areas)	IV Mathematics 3 semester hours	V Natural Science** 8-10 semester hours	VI Computer Science 3 semester hours
ENG 161	ART 155	HUM 156	ECN 155	MTH 157	BIO 107	CPT 145
ENG 164	ART 158		ECN 156	MTH 158	BIO 120	CPT 150
	ART 160	MUS 155	ECN 158	MTH 160	BIO 145	CPT 151
	ART 162	MUS 160		MTH 161	BIO 155	
			GEO 155	MTH 172	BIO 156	
	ASL 101	PHL 155		MTH 180	BIO 171	
	ASL 102	PHL 160	HIS 155	MTH 185	BIO 172	
	ENG 159	PHL 161	HIS 156		BIO 265	
	ENG 165	PHL 165	HIS 249			
	ENG 245		HIS 255		CHM 107	
	ENG 255	REL 161	HIS 256		CHM 108	
	ENG 256	REL 171	HIS 257		CHM 155	
	ENG 258	REL 181			CHM 156	
	ENG 260		POL 155			
	ENG 264	SPA 155	POL 200		EPS 150	
	ENG 270	SPA 156			EPS 160	
	ENG 271		PSY 160		EPS 163	
	ENG 275	SPC 155	PSY 161			
	ENG 276	SPC 156	PSY 163		GEO 160	
	ENG 277	SPC 157	PSY 165			
	ENG 280	SPC 158	PSY 260		PHY 153	
	ENG 290	SPC 255	PSY 265		PHY 155	
			PSY 268		PHY 156	
	FRN 155	THR 160	PSY 270		PHY 255	
	FRN 156	THR 161			PHY 256	
		THR 170	SOC 155			
			SOC 157			
			SOC 161			
			SOC 162			
			SOC 165			
			SOC 255			

*While these courses are designed for transfer, students are reminded that the requirements for a bachelor's degree vary among four-year colleges and universities. For this reason students are cautioned to select courses which fulfill the requirements of the school to which they intend to transfer. They should contact the WCCC transfer counselor before their first semester and be guided by the catalog of the college or university they wish to attend after earning their associate degree.

**Natural Science distribution may be satisfied by: completion of two coures with lab science (8 credits), completion of one course with lab science and two courses without (10 credits), or completion of three courses without lab science (9 credits).

Associate in Arts Degree (A.A.)

Elective Courses for Students Planning to Transfer to a Four-Year College or University

Students in the associate in arts degree program are required to complete 21-24 semester hours of transfer elective courses, all of which can be chosen from the courses listed on page 26. Students may choose up to 15 credit hours from the list below. The remaining electives must be chosen from the courses listed on page 26. Students who intend to transfer are strongly encouraged to select courses in consultation with their advisor or transfer counselor and an academic official from the four-year institution to which they plan to transfer.

ACC 155	CHC 290	FSM 159	MTH 108
ACC 156	CHM 250		MTH 109
ACC 165	CHM 251	FRN 255	MTH 173
ACC 219	CHM 264	FRN 256	MTH 271
ACC 230			MTH 272
ACC 234	CPT 162	GCT 115	
ACC 250	CPT 163		MUS 131
	CPT 165	HMS 155	
ART 161	CPT 180	HMS 157	PHY 258
ART 163	CPT 181	HMS 170	
ART 164	CPT 182	HMS 171	POL 156
ART 165	CPT 183	HMS 172	POL 255
ART 168	CPT 213		POL 256
	CPT 235	HON 295	
BUS 158	CPT 242	HON 296	SOC 160
BUS 159	CPT 286	HON 297	
BUS 160		HON 298	SPA 255
BUS 205	CRJ 155		SPA 256
BUS 206	CRJ 160	HPE 156	
BUS 240	CRJ 162	HPE 157	THR 160
BUS 241	CRJ 163	HPE 176	THR 161
BUS 244	CRJ 180	HPE 178	THR 170
BUS 245	CRJ 255		
BUS 246	CRJ 261	LIS 100	WEB 150
BUS 249	CRJ 263	LIS 110	WEB 235
BUS 260	CRJ 265	LIS 120	
BUS 261	CRJ 290	LIS 130	
BUS 275		LIS 140	
BUS 285	EDU 155		
	EDU 200	MED 105	
CHC 180		MED 110	
CHC 188	ENG 162	MED 155	
CHC 193	ENG 163	MED 158	
	ENG 166	MED 160	
	ENG 240	MED 170	
	ENG 245	MED 255	
		MED 256	

The list of courses is not all inclusive and other courses may be approved on an individual basis.

To assist students and advisors/counselors in selecting courses to fulfill associate in arts degree requirements, the following courses are suggested for transfer to bachelor's degree majors listed below. Students should be aware that this list is not all inclusive and that through discussions with officials at the four-year college or university, other appropriate courses may be identified. This list does not contain all possible majors at four-year institutions. Course work for other majors can be taken at WCCC; for assistance see an advisor or counselor. If undecided about a major refer to page 34. General education requirements must be taken from specified lists on page 26.

If planning a bachelor's degree major in: Art

Suggested courses for the associate in arts degree are:

General Education	Sem. Hrs.
ART 155 Introduction to Art	3
ENG 161 College Writing	3
ENG 164 Advanced Composition	3
Computer Science Elective	3
Humanities Electives	6
Mathematics Elective	3
Natural Science Electives	8
Social Science Electives	9

Major and Support Electives	Sem. Hrs.
ART 160 2-D Design	3
ART 161 3-D Design	3
ART 162 Drawing I	3
ART 163 Drawing II	3
ART 164 Color Concepts	3
Electives*	9

*These may be art or other courses selected on the basis of requirements of the college or university to which the student plans to transfer.

The student can prepare for transfer to a four-year program in either studio arts, art history, graphic design, or photography. The broad range of professions in museums, education, galleries, and corporate cultural divisions may determine the focus and/or choice of electives. To ensure successful transfer of course work, students are strongly urged to consult with their advisor and receiving institution transfer counselor before the end of the first year at WCCC.

If planning a bachelor's degree major in: Biology

Suggested courses for the associate in arts degree are:

General Education	Sem. Hrs.
ENG 161 College Writing	3
ENG 164 Advanced Composition	3
BIO 155 General Biology I	4
BIO 156 General Biology II	4
MTH 157 College Algebra (or higher level math)	3-4
Computer Science Elective	3
Humanities Electives	9
Social Science Electives	9

Major and support electives	Sem. Hrs.
CHM 155 General Chemistry I	4
CHM 156 General Chemistry II	4
Restricted Elective* – select from courses with prefixes of MTH, CHM, BIO, PHY	16

*The choice of these courses is dependent on the four-year college or university to which the student plans to transfer.

If planning a bachelor's degree major in: Business

Suggested courses for the associate in arts degree are:

General Education	Sem. Hrs.
ENG 161 College Writing	3
ENG 164 Advanced Composition	3
ECN 155 Macroeconomics	3
ECN 156 Microeconomics	3
MTH 157 College Algebra	3
Computer Science Elective	3
Humanities Electives	9
Natural Science Electives	8
Social Science Elective	3

Major and Support Electives	Sem. Hrs.
ACC 155 Accounting I	3
ACC 156 Accounting II	3
MTH 158 Precalculus Mathematics	3
Electives*	15

*The choice of these courses is dependent on the four-year college or university to which the student plans to transfer.

If planning a bachelor's degree major in: Chemistry

Suggested courses for the associate in arts degree are:

GENERAL EDUCATION	SEM. HRS.
ENG 161 College Writing	3
ENG 164 Advanced Composition	3
CHM 155 General Chemistry I	4
CHM 156 General Chemistry II	4
MTH 158 Precalculus Mathematics	3
Computer Science Elective	3
Humanities Electives	9
Social Science Electives	9

MAJOR AND SUPPORT ELECTIVES	SEM. HRS.
CHM 250 Organic Chemistry I	4
CHM 251 Organic Chemistry II	4
MTH 172 Analytical Geometry and Calculus I	4
MTH 173 Analytical Geometry and Calculus II	4
PHY 255 Engineering Physics I	5
PHY 256 Engineering Physics II	5

If planning a bachelor's degree major in: Chiropractic

Suggested courses for the associate in arts degree are:

GENERAL EDUCATION	SEM. HRS.
ENG 161 College Writing	3
ENG 164 Advanced Composition	3
BIO 155 General Biology I or	
BIO 171 Anatomy and Physiology I	4
BIO 156 General Biology II or	
BIO 172 Anatomy and Physiology II	4
MTH 157 College Algebra	3
PSY 160 General Psychology	3
Computer Science Elective	3
Humanities Electives	9
Social Science Electives	9

MAJOR AND SUPPORT ELECTIVES	SEM. HRS.
CHM 155 General Chemistry I	4
CHM 156 General Chemistry II	4
CHM 250 Organic Chemistry I	4
CHM 251 Organic Chemistry II	4
PSY 155 College Physics I	4
PSY 156 College Physics II	4
Electives*	8

*The choice of these courses is dependent on the four-year college or university to which the student plans to transfer.

If planning a bachelor's degree major in: Communication

Suggested courses for the associate in arts degree are:

GENERAL EDUCATION	SEM. HRS.
ENG 161 College Writing	3
ENG 164 Advanced Composition	3
MTH 157 College Algebra (or higher level math)	3
PSY 160 General Psychology	3
SPC 155 Effective Speech	3
Computer Science Elective	3
Humanities Electives	6
Natural Science Electives	8
Social Science Electives	6

MAJOR AND SUPPORT ELECTIVES	SEM. HRS.
Electives*	24

There are many options within a communication major, including advertising, media, public relations, and speech and rhetoric. Selection of courses will depend on the specific option chosen by the student and on the requirements of the college to which the student is transferring. Subjects used to meet these major requirements often come from disciplines such as English, business, media, speech, theater and graphic arts. Students should contact their advisor or the transfer counselor concerning the appropriate choice of courses.

*The choice of these courses is dependent on the four-year college or university to which the student plans to transfer.

If planning a bachelor's degree major in: Computer Science/Information Systems

Suggested courses for the associate in arts degree are:

General Education	Sem. Hrs.
ENG 161 College Writing	3
ENG 164 Advanced Composition	3
MTH 158 Precalculus Mathematics (or higher level math)	3
Computer Technology Elective	3
Humanities Electives	9
Natural Science Electives	8
Social Science Electives	9

Major and Support Electives	Sem. Hrs.
Computer Technology/ Mathematics Electives*	12-15
Electives**	9-12

*The choice of these courses is dependent on the four-year college or university to which the student plans to transfer.

**Students' specific educational or career goals will determine the choice of support courses. Additional courses in mathematics may be appropriate for those planning to major in Computer Science. Students planning to major in Information Systems may be encouraged to take courses in business, social science, or other related areas. Students should consult with their advisor or transfer counselor to determine which courses will meet the requirements of the receiving institution.

If planning a bachelor's degree major in: Criminal Justice

Suggested courses for the associate in arts degree are:

General Education	Sem. Hrs.
ENG 161 College Writing	3
ENG 164 Advanced Composition	3
PSY 160 General Psychology	3
SOC 155 Principles of Sociology	3
Computer Science Elective	3
Humanities Electives	9
Mathematics Elective	3
Natural Science Electives	8
Social Science Elective	3

Major and Support Electives	Sem. Hrs.
CRJ 155 Introduction to Criminal Justice	3
CRJ 160 Criminal Law I	3
Electives*	18

There are many specialized areas within criminal justice, including corrections, counseling, forensics, investigations, probation, and parole. Depending on the specialty chosen, students will be encouraged to take additional CRJ courses or related courses in subject areas such as business, natural science, psychology, and sociology.

*The choice of these courses is dependent on the four-year college or university to which the student plans to transfer.

If planning a bachelor's degree major in: Engineering

Suggested courses for the associate in arts degree are:

General Education	Sem. Hrs.
ENG 161 College Writing	3
ENG 164 Advanced Composition	3
MTH 172 Analytical Geometry and Calculus I	4
PHY 255 Engineering Physics I	5
PHY 256 Engineering Physics II	5
Computer Science Elective	3
Humanities Electives	9
Social Science Electives	9

Major and Support Electives	Sem. Hrs.
CHM 155 General Chemistry I	4
CHM 156 General Chemistry II	4
MTH 173 Analytical Geometry and Calculus II	4
Electives*	7-8

Students planning to major in engineering are cautioned to communicate with their transfer institution prior to the completion of their first year of study at WCCC. This will assist in ensuring successful transfer of course work.

*The choice of these courses is dependent on the four-year college or university to which the student plans to transfer.

If planning a bachelor's degree major in: English/Writing/Literature

Suggested courses for the associate in arts degree are:

GENERAL EDUCATION	SEM. HRS.
ENG 161 College Writing	3
ENG 164 Advanced Composition	3
SPC 155 Effective Speech	3
Computer Science Elective	3
Humanities Electives	6
Mathematics Elective	3
Natural Science Electives	8
Social Science Electives	9

GENERAL EDUCATION	SEM. HRS.
Electives*	24

A student's specific educational or career goals will determine the choice of support courses. Additional courses in the humanities may be appropriate for those planning on graduate work in English literature while those planning on entering the work force after the bachelor's degree may be encouraged to take courses in business, social science, or other related areas. Students should consult with their advisor or transfer counselor to determine which courses will meet requirements of the receiving institution.

*The choice of these courses is dependent on the four-year college or university to which the student plans to transfer.

If planning a bachelor's degree major in: Health & Physical Education

Suggested courses for the associate in arts degree are:

GENERAL EDUCATION	SEM. HRS.
ENG 161 College Writing	3
ENG 164 Advanced Composition	3
PSY 160 General Psychology	3
Computer Science Elective	3
Humanities Electives	9
Mathematics Electives	6
Natural Science Electives	8
Social Science Electives	6

MAJOR AND SUPPORT ELECTIVES	SEM. HRS.
Electives**	15

*Required for teacher certification.

**The choice of these courses is dependent on the four-year college or university to which the student plans to transfer.

If planning a bachelor's degree major in: Health Professions

Suggested courses for the associate in arts degree are:

GENERAL EDUCATION	SEM. HRS.
ENG 161 College Writing	3
ENG 164 Advanced Composition	3
BIO 171 Anatomy and Physiology I	4
and	
BIO 172 Anatomy and Physiology II	4
or	
BIO 155 General Biology I	4
and	
BIO 156 General Biology II	4
MTH 157 College Algebra or	
MTH 160 Introduction to Statistics	3
PSY 160 General Psychology	3
Computer Science Elective	3
Humanities Electives	9
Social Science Electives	6

MAJOR AND SUPPORT ELECTIVES	SEM. HRS.
CHM 155 General Chemistry I	4
CHM 156 General Chemistry II	4
Electives*	16

Health professions include majors such as dietetics, medical technology, occupational therapy, physician's assistant, and physical therapy. Each specialization has its own set of prerequisites with some emphasizing the natural sciences and others stressing the social sciences or related subject areas. Major and support courses should be selected according to the requirements of the specific baccalaureate program.

*The choice of these courses is dependent on the four-year college or university to which the student plans to transfer.

If planning a bachelor's degree major in: History

Suggested courses for the associate in arts degree are:

GENERAL EDUCATION	SEM. HRS.
ENG 161 College Writing	3
ENG 164 Advanced Composition	3
Computer Science Elective	3
Humanities Electives	9
Mathematics Elective	3
Natural Science Electives	8
Social Science Electives (other than history)	9

MAJOR AND SUPPORT ELECTIVES	SEM. HRS.
Electives*	24

*The choice of these courses is dependent on the four-year college or university to which the student plans to transfer.

If planning a bachelor's degree major in: Humanities

Suggested courses for the associate in arts degree are:

GENERAL EDUCATION	SEM. HRS.
ENG 161 College Writing	3
ENG 164 Advanced Composition	3
Computer Science Elective	3
Humanities Electives	9
Mathematics Elective	3
Natural Science Electives	8
Social Science Electives	9

MAJOR AND SUPPORT ELECTIVES	SEM. HRS.
Electives*	24

Disciplines within the humanities include art, English, foreign languages, music, philosophy, and speech. Selection of major and support courses will be determined by the student's educational and career goals and the requirements of the receiving institution.

*The choice of these courses is dependent on the four-year college or university to which the student plans to transfer.

If planning a bachelor's degree major in: Library Science

Suggested courses for the associate in arts degree are:

GENERAL EDUCATION	SEM. HRS.
ENG 161 College Writing	3
ENG 164 Advanced Composition	3
SPC 155 Effective Speech	3
Computer Science Elective	3
Humanities Electives (in 2 areas)	6
Mathematics Elective	3
Natural Science Electives	8
Social Science Electives (in 2 areas)	9

MAJOR AND SUPPORT ELECTIVES	SEM. HRS.
LIS 100 Intro to Library Science	3
LIS 110 Cataloging and Classification	3
LIS 120 Information Sources and Services	3
LIS 130 Materials Selection (Collection Dev.)	3
EDU 155 Foundations of Education	3
EDU 200 Intro to Instructional Technology	3
PSY 160 General Psychology	3
PSY 165 Educational Psychology	3

This program is designed to facilitate transfer into a Bachelor of Science in Education in Library Science degree program leading to Pennsylvania School Library Certification, grades K-12.

If planning a bachelor's degree major in: Mathematics

Suggested courses for the associate in arts degree are:

General Education	Sem. Hrs.
ENG 161 College Writing	3
ENG 164 Advanced Composition	3
MTH 172 Analytical Geometry and Calculus I	4
Computer Science Elective	3
Humanities Electives	9
Natural Science Electives	8
Social Science Electives	9

Major and Support Electives	Sem. Hrs.
MTH 173 Analytical Geometry and Calculus II	4
MTH 271 Analytical Geometry and Calculus III	4
Electives*	15

Additional courses in computer science or natural sciences are advisable. Specific selection of these courses should be based on the requirements of the receiving institution.

*The choice of these courses is dependent on the four-year college or university to which the student plans to transfer.

If planning a bachelor's degree major in: Physics

Suggested courses for the associate in arts degree are:

General Education	Sem. Hrs.
ENG 161 College Writing	3
ENG 164 Advanced Composition	3
CHM 155 General Chemistry I	4
CHM 156 General Chemistry II	4
MTH 172 Analytical Geometry and Calculus I	4
Computer Science Elective	3
Humanities Electives	9
Social Science Electives	9

Major and Support Electives	Sem. Hrs.
MTH 173 Analytical Geometry and Calculus II	4
MTH 271 Analytical Geometry and Calculus III	4
MTH 272 Diffential Equations	3
PHY 255 Engineering Physics I	5
PHY 256 Engineering Physics II	5
Elective*	3

*The choice of these courses is dependent on the four-year college or university to which the student plans to transfer.

If planning a bachelor's degree major in: Political Science

Suggested courses for the associate in arts degree are:

General Education	Sem. Hrs.
ENG 161 College Writing	3
ENG 164 Advanced Composition	3
Computer Science Elective	3
Humanities Electives	9
Mathematics Elective	3
Natural Science Electives	8
Social Science Electives (other than political science courses)	9

Major and Support Electives	Sem. Hrs.
POL 155 American National Government	3
Electives*	21

*The choice of these courses is dependent on the four-year college or university to which the student plans to transfer.

If planning a bachelor's degree major in: Psychology

Suggested courses for the associate in arts degree are:

General Education	Sem. Hrs.
ENG 161 College Writing	3
ENG 164 Advanced Composition	3
MTH 157 College Algebra or MTH 160 Introduction to Statistics	3
Computer Science Elective	3
Humanities Electives	9
Natural Science Electives	8
Social Science Electives (other than psychology courses)	9

Major and Support Electives	Sem. Hrs.
PSY 160 General Psychology	3
Electives*	21

*The choice of these courses is dependent on the four-year college or university to which the student plans to transfer.

If planning a bachelor's degree major in: Sociology

Suggested courses for the associate in arts degree are:

General Education	Sem. Hrs.
ENG 161 College Writing	3
ENG 164 Advanced Composition	3
MTH 157 College Algebra or	
MTH 160 Introduction to Statistics	3
Computer Science Elective	3
Humanities Electives	9
Natural Science Electives	8
Social Science Electives (other than sociology courses)	9

Major and Support electives	Sem. Hrs.
SOC 155 Principles of Sociology	3
Electives*	21

*The choice of these courses is dependent on the four-year college or university to which the student plans to transfer.

If planning a bachelor's degree major in: Teacher Education

Suggested courses for the associate in arts degree are:

General Education	Sem. Hrs.
ENG 161 College Writing	3
ENG 164 Advanced Composition	3
PSY 160 General Psychology	3
Computer Science Elective	3
Humanities Electives	9
Mathematics Electives	6
Natural Science Electives	8
Social Science Electives	6

Major and Support Electives	Sem. Hrs.
EDU 155 Foundations of Education	3
EDU 200 Introduction to Instructional Technology	3
PSY 165 Educational Psychology	3
Electives*	15

Additional courses will be determined by the specific option within education chosen by the student and by the requirements of the receiving institution.

*The choice of these courses is dependent on the four-year college or university to which the student plans to transfer.

If undecided about a bachelor's degree major

Suggested courses for the associate in arts degree are:

General Education	Sem. Hrs.
ENG 161 College Writing	3
ENG 164 Advanced Composition	3
Computer Science Elective	3
Humanities Electives	9
Mathematics Elective	3
Natural Science Electives	8
Social Science Electives	9

Major and Support Electives	Sem. Hrs.
Electives*	24

*The choice of these courses is dependent on the four-year college or university to which the student plans to transfer.

Associate in Applied Science Degree (A.A.S.)

Degree Requirements

All associate degree students are required to complete a core of general education courses designed to broaden and enhance their educational experience. General education requirements are included in the course requirements list for each associate degree program. These courses have been included with the course requirements. In some programs they are listed as electives limited to a specific area, such as "Social Science Elective." Other programs may list specific courses which have been determined to best meet the needs of that particular career field. The distribution of general education requirements and the courses which meet these requirements are shown in the list below.

Requirements of the associate in applied science degree include:

- 18 semester hours of general education as outlined below
- 42-69 semester hours of program courses

To meet minimum requirements, 18 hours are required in four areas as shown below, selected from the courses listed.

I English 6 semester hours	II Humanities 0-3 semester hours	III Social Science 3 semester hours	IV Mathematics 3 semester hours	V Science 0-4 semester hours	VI Computer Skills 3 semester hours
ENG 161	ART 155 MUS 155	ECN 155	MTH 100	BIO 107	ARC 210
ENG 162	ART 158 MUS 160	ECN 156	MTH 108	BIO 120	
ENG 163	ART 160	ECN 158	MTH 109	BIO 145	CPT 145
ENG 164	ART 162 PHL 155		MTH 157	BIO 155	CPT 150
ENG 166	PHL 160	GEO 155	MTH 158	BIO 171	CPT 151
	ENG 159 PHL 161		MTH 160		
	ENG 165 PHL 165	HIS 155	MTH 161	CHM 105	DFT 258
	ENG 245	HIS 156	MTH 172	CHM 107	
	ENG 255 REL 161	HIS 249	MTH 180	CHM 108	GCT 130
	ENG 256 REL 171	HIS 255		CHM 155	GCT 160
	ENG 258 REL 181	HIS 256	BUS 120		
	ENG 260	HIS 257	BUS 244	EPS 150	MED 110
	ENG 264 SPA 155			EPS 160	
	ENG 270 SPA 156	POL 155		EPS 163	WEB 120
	ENG 271	POL 200			
	ENG 275 SPC 155			GEO 160	
	ENG 276 SPC 156	PSY 160			
	ENG 277 SPC 157	PSY 161		PHY 107	
	ENG 280 SPC 158	PSY 163		PHY 150	
	ENG 290 SPC 255	PSY 165		PHY 153	
		PSY 260		PHY 155	
	FRN 155 THR 160	PSY 265		PHY 255	
	FRN 156 THR 161	PSY 268			
		PSY 270			
	HUM 156				
		SOC 155			
		SOC 160			
		SOC 161			
		SOC 162			
		SOC 166			
		SOC 255			

Accounting, AAS

Division of Computer Technology/Business

The field of accounting is particularly suitable for those with an aptitude for mathematics and computer software, the ability to concentrate on detail, and the ability to analyze, compare and interpret facts and figures.

At WCCC the academic program is designed to prepare students without prior experience in accounting for a variety of entry level positions in business, industry, and government. Accounting majors must complete a minimum of 60 credits with a heavy concentration in accounting, computer and business management courses.

Successful completion of this program of study leads to the associate in applied science degree.

Career Opportunities

Recent graduates of the accounting program have accepted jobs with the following titles: junior accountant, accounts payable clerk, assistant accountant, assistant to the CPA, assistant auditor, accounting clerk, payroll accountant and accounting technician.

Competency Profile

This curriculum is designed to prepare students to:

- appropriately record financial transactions and prepare pertinent financial statements for sole proprietorships, partnerships and corporations
- prepare various types of tax returns including individual, C-corporation, S-corporation and partnership returns and related schedules
- effect cost accounting practices
- utilize the microcomputer for various bookkeeping, accounting and financial functions, and tax reporting
- apply appropriate laws and generally accepted accounting principles to accounting situations
- practice positive interpersonal and communication skills as a member of a business office work team
- utilize sound judgment skills practice ethical conduct in the making of business decisions
- view accounting as an integrated system providing information to investors, managers, governmental agencies and others to allow them to make intelligent decisions regarding the business

PROGRAM REQUIREMENTS (TOTAL CREDITS — 60)

General Education

BUS 120	Math of Business	3
CPT 150	Microcomputer Con.	3
ENG 161	College Writing	3
ENG 163	Business Comm.	
or		3
ENG 164	Advanced Composition	
SPC 155	Effective Speech	
or		3
SPC 156	Interpersonal Commun.	
Social Science Elective		3
		18

Major

ACC 155	Accounting I	3
ACC 156	Accounting II	3
ACC 219	Managerial Accounting	3
ACC 230	Integ. Acct. Software	3
ACC 250	Prin. of Taxation	3
ACC 255	Intermed. Accounting I	3
ACC 256	Intermed. Accounting II	3
ACC 260	Adv. Acctg. Issues✦	3
		24

✦*capstone course*

Other Required Courses

ACC 234	Payroll & Spread. Soft.	
or		3
CPT 195	Excel for Windows	
ACC 251	Tax Prep. Software	
or		3
BUS 244	Business Statistics	
BUS 159	Business Finance	3
BUS 160	Intro. to Business	3
Business or Computer Elective		3
Business Elective*		3
		18

*Students are encouraged to select from:
BUS 260 - Small Business Mgmt.
BUS 262 - Effective Entrepreneurship
BUS 263 - Small Business Finance
BUS 264 - Small Business Operations

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
ACC 155	3	ACC 156	3	ACC 230	3	ACC 219	3
BUS 120	3	ACC 234 or CPT 195	3	ACC 251 or BUS 244	3	ACC 256	3
BUS 160	3	ACC 250	3	ACC 255	3	ACC 260	3
CPT 150	3	BUS 159	3	SPC 155 or SPC 156	3	BUS or CPT Elective	3
ENG 161	3	ENG 163 or ENG 164	3	Business Elective*	3	Social Science Elective	3
	15		**15**		**15**		**15**

Accounting, Certificate

COMPUTER ACCOUNTING & TAX SPECIALIST

Division of Computer Technology/Business

The computer accounting and tax specialist certificate program is designed to provide entry level general bookkeeping skills, as well as proficiency in the use of microcomputers to perform accounting and tax functions. The curriculum is designed to provide the student with computer experience in several specialty fields within accounting including the preparation of tax returns.

Career Opportunities

Students who complete this program may be employed in general bookkeeping positions including payroll, accounts receivable or payable, or in the preparation of individual and business income tax returns.

Competency Profile

This curriculum is designed to prepare students to:

- appropriately record financial transactions and prepare pertinent financial statements for sole proprietorships, partnerships, and corporations
- prepare tax returns for individual payers with various types of income and deductions
- prepare business tax returns including C Corporation, S Corporation, and partnerships
- utilize the microcomputer for accounting, financial and tax reporting
- apply appropriate laws and generally accepted accounting principles to accounting situations
- practice positive interpersonal and communication skills as a member of a business office work team
- utilize sound judgment and practice ethical conduct in making business decisions

PROGRAM REQUIREMENTS (TOTAL CREDITS-16)

ACC 120	Quickbooks - Basic	1
ACC 155	Accounting I	3
ACC 230	Integrated Acctg. Sftwr.	3
ACC 234	Payroll & Sprdsht. Sftwr.	3
ACC 250	Principles of Taxation	3
ACC 251	Tax Preparation Sftwre.	3
		16

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**		**Fall Semester**	
ACC 120	1	ACC 230	3	ACC 251	3
ACC 155	3	ACC 234	3		**3**
	4	ACC 250	3		
			9		

Architectural Drafting and Design, AAS

Division of Technologies/Culinary Arts/Mathematics/Sciences

Students in the architectural drafting and design program learn to translate the ideas, rough sketches, specifications and calculations of architects into working drawings for production and construction.

Successful completion of this program of study leads to the associate in applied science degree.

Career Opportunities

Graduates of this program will accept jobs with the following titles: architectural draftsman, architectural drafting technician, architectural drafting technician trainee and first-level CADD operators.

Competency Profile

This curriculum is designed to prepare students to:

- analyze and translate architectural and construction problems by presenting them visually as working drawings
- develop the ability to execute quantitative design of construction
- apply concepts from physics, engineering, architectural mechanics, mathematics, and drafting and apply them to the synthesis of construction
- communicate effectively and appropriately; record and report information significant to the job
- perform an infinite number of two-dimensional drawings using a stand-alone mini-computer
- identify the basic components of a CADD system
- perform an infinite number of 2-D design math computations necessary to produce drafting design
- implement the basic commands necessary to apply the operational skills needed to effect a 2-D CADD system
- utilize construction industry vocabulary
- originate and interpret drawings using these construction industry standards
- determine cost estimates
- apply appropriate specifications, building codes and local ordinances in a job assignment
- effectively network with building inspectors

PROGRAM REQUIREMENTS (TOTAL CREDITS — 61)

General Education

ARC 210	Arch. AutoCAD I	4
ENG 161	College Writing	3
ENG 162	Technical Comm.	3
MTH 108	Math for the Tech. I	4
PHY 107	Applied Physics	4
Social Science Elective		3
		21

Major

ARC 101	Bldg. Materials & Estim.	3
ARC 102	Contracts and Specs.	3
ARC 105	Arch. Drafting I	4
ARC 106	Arch. Drafting II	4
ARC 119	Intro to Surveying	3
ARC 211	Arch. AutoCAD II	4
ARC 215	Arch. Presentation	4
ARC 262	Piping, Struc. & Elec. Mech.	4
		29

Other Required Courses

EGR 220	Statics/Strength of Mat.	3
MTH 109	Math for the Tech. II	4
Restricted Elective*		4
		11

*Restricted Electives are courses with the prefix ARC, DFT, EGR, HAC

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
ARC 101	3	ARC 102	3	ARC 119	3	ARC 215	4
ARC 105	4	ARC 106	4	ARC 211	4	ARC 262	4
ENG 161	3	ARC 210	4	EGR 220	3	Restricted Elective	4
MTH 108	4	ENG 162	3	PHY 107	4	Social Science Elective	3
	14	MTH 109	4		**14**		**15**
			18				

Baking and Pastry, AAS

APPRENTICESHIP OPTION

Division of Technologies/Culinary Arts/Mathematics/Sciences

The baking and pastry apprenticeship program is one of seven majors comprising the college's hospitality program and is accredited by the Accrediting Commission of the American Culinary Federation Foundation. This apprenticeship program is sponsored by The American Culinary Federation Laurel Highlands Chapter (ACFLHC) and WCCC. A cooperative program, it combines 63 credits of academic course work with 4,000 hours of supervised on-the-job training in a participating restaurant, club, hotel, institution, resort or wholesale/retail bakery for an associate degree. Classes are scheduled so that students have a sufficient block of uninterrupted time to complete their 40-hour week. Academic work can be completed as a full-time student in two years or as a part-time student over a period of three years.

Students enrolled in this program are registered with the U.S. Department of Labor as apprentices and are required to join the ACFLHC as junior members.

Students are expected to be well-groomed in compliance with the standards of sanitation. Students will be required to present medical proof of good physical health. Uniforms, cutlery set and decorative tips are required for all lab classes.

Employment must be secured in a facility that will provide full-time employment. The employer will agree to abide by the apprenticeship guidelines. Having fulfilled employment requirements, applicants will complete the Pennsylvania Apprenticeship and Training Council Agreement and American Culinary Federation (ACF) Apprenticeship Registration Card. At the completion of the program, students may apply for certification with the ACF.

Career Opportunities

Graduates of the baking and pastry program may accept positions as: pastry cook, pastry chef, executive pastry chef, baker, cake decorator, baking sales representative, institutional baker/pastry chef, retail baker/pastry chef, wholesale baker/pastry chef, production supervisor, food batch maker, operations manager, sales representative or training specialist.

Competency Profile

This curriculum is designed to prepare students to:

- prepare yeast rolls, breads, pies, tarts, cookies, doughnuts and frozen desserts based on local, regional and international traditions and diversity
- prepare and decorate cakes, cookies and centerpieces
- prepare specialty pastry items and confectionery items
- write recipes and make mathematical yield adjustments
- collect, organize and identify information regarding quality standards in bakery products
- utilize positive personal and interpersonal skills needed for supervision of employees and in the area of customer relations
- utilize technology to affect successful systems operation within the bakery and pastry industry
- demonstrate the ability to function with all other related departments that exist in food operations in a team environment
- demonstrate basic food preparation skills with additional attention to food cost
- creatively design and prepare artistic showpieces and centerpieces

PROGRAM REQUIREMENTS (TOTAL CREDITS - 63)

General Education

CPT 150	Microcomputer Con.	3
ENG 161	College Writing	3
ENG 163	Business Comm.	3
Humanities Elective		3
Mathematics Elective		3
Social Science Elective		3
		18

Major

BKP 141	Baking I	4
BKP 142	Baking II	3
BKP 243	Healthy Cooking Trends	4
BKP 245	Decorating Techniques	3
BKP 247	Specialty/Artistic Tech.	4
CUL 121	Apprenticeship I	2
CUL 122	Apprenticeship II	2
CUL 123	Apprenticeship III	2
CUL 224	Apprenticeship IV	2
FSM 105	Foods I	4
FSM 118	Sanitation	2
FSM 215	Food Purch. & Menu Mgmt.	3
		35

Other Required Courses

FSM 103	Intro to Hospitality	
or		3
FSM 113	Customer Service	
FSM 117	Wait Staff Training	1
FSM 218	Hospitality Marketing	
or		3
BKP 242	Bakery Deli Merch.	
FSM 235	Supervision/Training	3
		10

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester	
BKP 141	4
CUL 121	2
FSM 103 or FSM 113	3
FSM 117	1
FSM 118	2
	12

Spring Semester	
BKP 142	3
CUL 122	2
FSM 105	4
FSM 218 or BKP 242	3
	12

Summer Semester*	
ENG 161	3
CPT 150	3
	6

Fall Semester	
BKP 243	4
BKP 245	3
CUL 123	2
FSM 215	3
	12

Spring Semester	
BKP 247	4
CUL 224	2
FSM 235	3
Math Elective	3
	12

Summer Semester*	
ENG 163	3
Humanities Elective	3
Social Science Elective	3
	9

*These courses may be taken in the fall and spring semester resulting in the student having full-time status. However, given the 40 hours per week required apprenticeship, it is recommended that students take these courses during the summer.

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Central Westmoreland Career and Technology Center, Eastern Westmoreland Career and Technology Center, Northern Westmoreland Career and Technology Center, Mon Valley Career and Technology Center, Lenape Area Vocational-Technical School and Fayette County Area Vocational-Technical School. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Baking and Pastry, Certificate

APPRENTICESHIP OPTION

Division of Technologies/Culinary Arts/Mathematics/Sciences

The baking and pastry apprenticeship program is one of seven majors comprising the college's hospitality program. This apprenticeship program is sponsored by The American Culinary Federation Laurel Highlands Chapter (ACFLHC) and WCCC. A cooperative program, it combines 45 credits of course work with 4,000 hours of supervised on-the-job training in a participating restaurant, club, hotel, institution, resort or wholesale/retail bakery. Classes are scheduled so that students have a sufficient block of uninterrupted time to complete their 40-hour week. Academic work can be completed as a full-time student in two years or as a part-time student over a period of three years.

Students enrolled in this program are registered with the U.S. Department of Labor as apprentices and are required to join the ACFLHC as junior members.

Students are expected to be well-groomed in compliance with the standards of sanitation. Students will be required to present medical proof of good physical health. Uniforms, cutlery set and decorative tips are required for all lab classes.

Employment must be secured in a facility that will provide full-time employment. The employer will agree to abide by the apprenticeship guidelines. Having fulfilled employment requirements, applicants will complete the Pennsylvania Apprenticeship and Training Council Agreement and American Culinary Federation (ACF) Apprenticeship Registration Card. At the completion of the program, students may apply for certification with the ACF.

Career Opportunities

Graduates of the culinary arts program have accepted jobs with the following titles: pastry cook, pastry chef, executive pastry chef, baker, cake decorator, institutional baker/pastry chef, retail baker/pastry chef, wholesale baker/pastry chef, production supervisor, food batch maker, operations manager, sales representative or training specialist.

Competency Profile

This curriculum is designed to prepare students to:

- prepare yeast rolls, breads, pies, tarts, cookies, doughnuts and frozen desserts based on local, regional and international traditions and diversity
- prepare and decorate cakes, cookies and centerpieces
- prepare specialty pastry items and confectionery items
- write recipes and make mathematical yield adjustments
- collect, organize and identify information regarding quality standards in bakery products
- utilize positive personal and interpersonal skills needed for supervision of employees and in the area of customer relations
- utilize technology to affect successful systems operation within the bakery and pastry industry
- demonstrate the ability to function with all other related departments that exist in food operations in a team environment
- demonstrate basic food preparation skills with additional attention to food cost
- creatively design and prepare artistic showpieces and centerpieces

PROGRAM REQUIREMENTS (TOTAL CREDITS – 45)

General Education

None Required

Major

BKP 141	Baking I	4
BKP 142	Baking II	3
BKP 243	Healthy Cooking Trends	4
BKP 245	Decorating Techniques	3
BKP 247	Specialty/Artistic Tech.	4
CUL 121	Apprenticeship I	2
CUL 122	Apprenticeship II	2
CUL 123	Apprenticeship III	2
CUL 224	Apprenticeship IV	2
FSM 105	Foods I	4
FSM 118	Sanitation	2
FSM 215	Food Purch. & Menu Mgmt.	3
		35

Other Required Courses

FSM 103	Intro to Hospitality	
or		3
FSM 113	Customer Service	
FSM 117	Wait Staff Training	1
FSM 218	Hospitality Marketing	
or		3
BKP 242	Bakery Merch. Tech.	
FSM 235	Supervision/Training	3
		10

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
BKP 141	4	BKP 142	3	BKP 243	4	BKP 247	4
CUL 121	2	CUL 122	2	BKP 245	3	CUL 224	2
FSM 103 or 113	3	FSM 105	4	CUL 123	2	FSM 235	3
FSM 117	1	FSM 218 or BKP 242	3	FSM 215	3		**9**
FSM 118	2		**12**		**12**		
	12						

Baking and Pastry, AAS

NON-APPRENTICESHIP OPTION

Division of Technologies/Culinary Arts/Mathematics/Sciences

Baking and pastry is one of seven majors comprising the college's hospitality program. This curriculum is designed to prepare students for various positions in the baking industry. The program of study provides students with skills necessary for the production of a wide range of bakery products. Students are expected to be well groomed in compliance with standards of sanitation. Students will be required to provide medical proof of good physical health. Uniforms, decorative tips and a cutlery set are required for all lab classes.

This program is accredited by the Accrediting Commission of the American Culinary Federation Foundation.

Career Opportunities

Graduates of the baking and pastry program may accept positions as: pastry cook, pastry chef, executive pastry chef, baker, cake decorator, baking sales representative, institutional baker/pastry chef, retail baker/pastry chef, wholesale baker/pastry chef, production supervisor, food batch maker, operations manager, sales representative or training specialist.

Competency Profile

This curriculum is designed to prepare students to:

- prepare yeasts rolls, breads, pies, cookies, doughnuts and frozen desserts based on local, regional and international traditions and diversity
- prepare and decorate cakes, cookies and centerpieces
- prepare specialty pastry items and confectionary items
- prepare and evaluate baked items using both scratch and convenience techniques and products as to market usage
- write recipes and make mathematical yield adjustments
- collect, organize and identify information regarding quality standards in bakery products
- utilize positive personal and interpersonal skills needed for supervision of employees and in the area of customer relations
- utilize technology to affect successful systems operation within the bakery and pastry industry
- demonstrate the ability to function with all other related departments that exist in food operations in a team environment
- demonstrate basic food preparation skills with additional attention to food cost
- creatively design and prepare artistic showpieces and centerpieces

PROGRAM REQUIREMENTS (TOTAL CREDITS — 60)

General Education

CPT 150	Microcomputer Con.	3
ENG 161	College Writing	3
ENG 163	Business Comm.	3
Humanities Elective		3
Mathematics Elective		3
Social Science Elective		3
		18

Major

BKP 141	Baking I	4
BKP 142	Baking II	3
BKP 144	Baking III	3
BKP 242	Bakery/Deli Merch. Tech.	3
BKP 243	Healthy Cooking Trends	4
BKP 245	Decorating Techniques	3
BKP 247	Specialty/Artistic Tech.	4
FSM 118	Sanitation	2
FSM 219	Hospitality Internship	3
		29

Other Required Courses

FSM 103	Intro to Hospitality	
or		3
FSM 113	Customer Service	
FSM 105	Foods I	4
FSM 215	Food Purch. & Menu Mgmt.	3
FSM 235	Supervision & Training	3
		13

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
BKP 141	4	BKP 142	3	BKP 144	4	BKP 242	3
ENG 161	3	BKP 245	3	BKP 243	3	BKP 247	4
FSM 103	3	CPT 150	3	FSM 215	3	FSM 219	3
FSM 105	4	ENG 163	3	Humanities Elective	3	Social Science Elective	3
FSM 118	2	FSM 235	3	Mathematics Elective	3		**13**
	16		**15**		**16**		

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Central Westmoreland Career and Technology Center, Eastern Westmoreland Career and Technology Center, Northern Westmoreland Career and Technology Center, Lenape Area Vocational-Technocal School, Fayette County Area Vocational-Technical School, and Mon Valley Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Baking and Pastry, Certificate

NON-APPRENTICESHIP OPTION

Division of Technologies/Culinary Arts/Mathematics/Sciences

The certificate is designed to provide entry and intermediate skills in the baking, deli and food production operations of the hospitality industries. A laboratory component is included in the Foods I, Baking I and Decorating Techniques courses. Sanitation standards are addressed through ServSafe as provided by the Educational Foundation of the National Restaurant Association. Uniforms, cutlery set and decorative tips are required for all lab classes. Students are expected to be well groomed in compliance with standards of sanitation. Medical proof of good physical health is required.

Career Opportunities

Graduates of the baking and pastry certificate program may accept positions as: pastry cook, pastry chef, executive pastry chef, baker, cake decorator, baking sales representative, institutional baker/pastry chef, retail baker/pastry chef, wholesale baker/pastry chef, production supervisor, food batch maker, operations manager, sales representative or training specialist.

Competency Profile

This curriculum is designed to prepare students to:

- prepare yeast rolls, breads, pies, cookies, doughnuts and frozen desserts based on local, regional and international traditions and diversity
- prepare and decorate cakes and cookies
- write recipes and be able to make mathematical yield adjustments
- utilize technology to affect successful systems operation within the bakery and pastry industry
- demonstrate basic food preparation skills
- practice basic interpersonal and customer service skills and techniques

PROGRAM REQUIREMENTS (TOTAL CREDITS — 16)

BKP 141	Baking I	4
BKP 245	Decorating Techniques	3
FSM 105	Foods I	4
FSM 113	Customer Service	3
FSM 118	Sanitation	2
		16

Bionanotechnology, AAS

Division of Technologies/Culinary Arts/Mathematics/Sciences

This program focuses on the preparation of students for work in such fields as biotechnology and pharmaceutical research and manufacturing. Students learn to work with materials at the nano-level in analysis, production and data collection. Students will complete the first three semesters at WCCC and complete nanotechnology courses at the Nanofabrication Facility at Penn State University in University Park, Pa. Students need to apply for admission for the nanofabrication program by the end of their first year at WCCC. Tuition for MPT courses completed at Penn State will be WCCC tuition.

Career Opportunities

Students enrolled in this program can work in occupations such as laboratory technician, quality control, and manufacturing technician in such fields as bionanotechnology research, medical laboratories and pharmaceutical manufacturing.

Competency Profile

This curriculum is designed to prepare students to:

- measure AC and DV voltages and current using a variety of measuring devices
- demonstrate knowledge of computer technology
- work in a bionanotechnology laboratory or manufacturing facility
- demonstrate an understanding of bionanotechnology principles and concepts
- apply statistics to analyze scientific results
- operate and maintain bionanotechnology electromechanical equipment
- apply laboratory results to experimental applications

PROGRAM REQUIREMENTS (TOTAL CREDITS — 65)

General Education		
CHM 107	Intro to Concepts Chem. I	4
CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 164	Advanced Composition	3
MTH 157	College Algebra	3
Social Science Elective		3
		19

Major		
MPT 211	Mat. Sfty. Equip. for Nano.	3
MPT 212	Basic Nanofab. Proc.	3
MPT 213	Thin Film in Nanofab.	3
MPT 214	Lithog. for Nanofab.	3
MPT 215	Mat. Modif. in Nanofab.	3
MPT 216	Char. Pkg./Test. of Nano.	3
		18

(These courses will be completed at PSU)

Other Required Courses		
BIO 171	Anatomy & Physiology I	4
BIO 172	Anatomy & Physiology II	4
BIO 265	Microbiology	4
CHM 108	Intro/Concepts Chem II	4
ELC 105	Inst. & Measurements	2
ELC 106	Circuits I	3
MTH 160	Statistics	3
PHY 107	Applied Physics	4
		28

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		Spring Semester		Fall Semester		Spring Semester	
CHM 107	4	BIO 171	4	BIO 172	4	MPT 211	3
ELC 105	2	CHM 108	4	BIO 265	4	MPT 212	3
ENG 161	3	ELC 106	3	CPT 150	3	MPT 213	3
MTH 157	3	ENG 164	3	Social Science Elective	3	MPT 214	3
PHY 107	4	MTH 160	3		**14**	MPT 215	3
	16		**17**			MPT 216	3
							18

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Central Westmoreland Career and Technology Center, Eastern Westmoreland Career and Technology Center and Northern Westmoreland Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Business

The growth of the Internet and the shift to a service-based economy, in which it is estimated that 98 percent of future job growth will be in service producing industries, has transformed the substantive content of the practice of management. The impact of these changes in the labor market has led to the need for new educational requirements and job skills both for those individuals currently employed in the field of management and for those who seek future careers in this field. These changes have led to an increased demand for management professionals in financial management, general management, human resources management, marketing management, real estate management, and small business management.

The Business Department

In response to the new dynamics of a service-based economy, the business department at WCCC offers a wide range of programs and courses designed to prepare students for the new challenges that await them in the field of management. The associate in applied science degree in business offers six options that comprise programs of study in finance, general management, human resources, marketing, real estate and small business. A diploma in business is offered as a short-term (36 credits) program that includes course coverage that can be considered to be foundational to possible future study in one of the six associated degree programs in business. The business department also offers a choice of six business certificate programs that cover advanced business topics in depth. Like the diploma offering, the certificate programs are also short-term (16-21 credits), and can be a foundation for future study in associate degree programs.

Associate in Applied Science Degree

The associate in applied science business degree program is offered in six areas of concentration: financial management, general management, human resources management, marketing management, real estate management and small business management. All of the AAS areas of concentration contain a common business core of seven general management courses (21 credits). This common core is augmented, in each of the different areas of concentration, by four or five courses (12-15 credits) that are specific to each area of concentration. These areas of concentration were carefully selected to satisfy the current and projected needs of the business community. The associate in applied science degree provides a solid academic and applied background in the designated area and can be completed in two years of full-time study.

Business Diploma

The business diploma (36 credits) is offered as a two-semester program that is designed to be a shorter alternative to the more comprehensive associate degree program. When compared to the associate degree programs, the business diploma program provides a more general, interdisciplinary insight into the field of business at an introductory level. This diploma program includes many courses that can be applied to the associate degree programs. A student can use the business diploma program either as a final educational outcome or as an intermediate step toward the attainment of an associate degree in one of the seven areas of concentration.

Business Certificate

WCCC offers a total of six business certificates covering advanced topics in business. Certificates are available in: financial management, general management, human resources management, marketing management, real estate management and small business management. These short programs are designed for the student who is seeking a concentrated educational focus in a specific aspect of business. Business certificates are particularly advantageous for any college graduate or current student who is currently in the workforce and needs to update, upgrade or expand his or her education and/or training in a specific, advanced topical area.

Complete descriptions of these programs appear on pages 46-55.

Business, AAS

FINANCIAL MANAGEMENT OPTION

Division of Computer Technology/Business

The financial management option of the business degree is designed to provide students with a broad basis in general business topics with an emphasis on corporate finance and banking.

Career Opportunities

Graduates of the financial management option can expect to find employment as bank managers, consumer loan officers, commercial lending managers, investment managers, insurance agents and financial analysts. Job opportunities will be available in the financial departments in large corporations and in commercial lending companies, consumer finance organizations, banks and insurance companies.

Competency Profile

This curriculum is designed to prepare students to:

- participate in corporate financial planning and analysis
- engage in the financial management of organizations
- function in entry-level banking positions
- participate in the consumer and commercial lending process
- plan and execute an investment portfolio
- practice effective decision-making skills

PROGRAM REQUIREMENTS (TOTAL CREDITS — 60)

General Education

BUS 120	Math of Business	3
CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 163	Business Communication	
or		3
ENG 164	Advanced Composition	
SPC 155	Effective Speech	
or		3
SPC 156	Interpersonal Commun.	
Social Science Elective		3
		18

Major

BUS 158	Prin. of Management	3
BUS 159	Business Finance	3
BUS 160	Intro to Business	3
BUS 205	Business Law I	3
BUS 240	Techniques of Selling	3
BUS 241	Human Resource Mgmt.	3
BUS 245	Principles of Marketing	3
		21

Concentration

BUS 190	Credit Management	3
BUS 191	Financial Institutions	3
BUS 244	Business Statistics	3
BUS 246	Risk Management	3
BUS 259	Investments	3
		15

Other Required Courses

ACC 165	Acctg. for Managers	3
Economics Elective		3
		6

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
BUS 120	3	ACC 165	3	BUS 159	3	BUS 244	3
BUS 160	3	BUS 158	3	BUS 190	3	BUS 245	3
CPT 150	3	BUS 205	3	BUS 191	3	BUS 246	3
ENG 161	3	BUS 240	3	BUS 241	3	BUS 259	3
Economics Elective	3	ENG 163 or ENG 164	3	SPC 155 or SPC 156	3	Social Science Elective	3
	15		**15**		**15**		**15**

Business, AAS

GENERAL MANAGEMENT OPTION

Division of Computer Technology/Business

The general management option is designed to prepare students for entry-level management positions in a variety of organizations. The program of study develops basic competence in a broad range of essential business functions.

Career Opportunities

Graduates of the general management option can expect to find employment as assistant managers, production managers, management trainees, department supervisors, quality control officers, warehouse managers and inventory managers. Job opportunities will be available in large corporations, a variety of small businesses and nonprofit organizations.

Competency Profile

This curriculum is designed to prepare students to:

- implement marketing/sales skills applicable to the customer orientation of the employer
- communicate effectively and relate positively to others
- effect the organizing, marketing, purchasing, producing, staffing and financial management skills
- supervise human resources in an organization
- practice effective decision-making skills

PROGRAM REQUIREMENTS (TOTAL CREDITS — 60)

General Education

BUS 120	Math of Business	3
CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 163	Business Communication	
or		3
ENG 164	Advanced Composition	
SPC 155	Effective Speech	
or		3
SPC 156	Interpersonal Commun.	
Social Science Elective		3
		18

Major

BUS 158	Prin. of Management	3
BUS 159	Business Finance	3
BUS 160	Intro to Business	3
BUS 205	Business Law I	3
BUS 240	Techniques of Selling	3
BUS 241	Human Resources Mgmt.	3
BUS 245	Prin. of Marketing	3
		21

Concentration

BUS 206	Business Law II	3
BUS 244	Business Statistics	3
BUS 249	Labor Relations	3
BUS 258	Supervisory Mgmnt.	3
BUS 260	Small Business Mgmt.	
or		3
BUS 261	International Business	
		15

Other Required Courses

ACC 165	Acctg. for Managers	3
Economics Elective		3
		6

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
BUS 120	3	ACC 165	3	BUS 159	3	BUS 206	3
BUS 160	3	BUS 158	3	BUS 241	3	BUS 245	3
CPT 150	3	BUS 205	3	BUS 244	3	BUS 258	3
ENG 161	3	BUS 240	3	BUS 249	3	BUS 260 or BUS 261	3
Economics Elective	3	ENG 163 or ENG 164	3	SPC 155 or SPC 156	3	Social Science Elective	3
	15		**15**		**15**		**15**

Business, AAS

HUMAN RESOURCES MANAGEMENT OPTION

Division of Computer Technology/Business

The human resources management option is designed to prepare students for entry-level human resources management positions in a variety of organizations. The program of study develops basic competence in a focused range of essential human resources functions.

Career Opportunities

Graduates of the human resources management option can expect to find employment as compensation management specialists, safety management specialists, and general human resources management specialists. Job opportunities will be available in large corporations, a variety of small businesses, and nonprofit organizations.

Competency Profile

This curriculum is designed to prepare students to:

- implement marketing/sales skills applicable to the customer orientation of the employer
- communicate effectively and relate positively to others
- effect the organizing, marketing, purchasing, producing, staffing, and financial management skills
- supervise human resources in an organization
- practice effective decision-making skills
- utilize negotiating skills with employees and/or local union officials

PROGRAM REQUIREMENTS (TOTAL CREDITS — 60)

General Education

BUS 120	Math of Business	3
CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 163	Business Communication	
or		3
ENG 164	Advanced Composition	
SPC 155	Effective Speech	
or		3
SPC 156	Interpersonal Comm.	
Social Science Elective		3
		18

Major

BUS 158	Prin. of Management	3
BUS 159	Business Finance	3
BUS 160	Intro to Business	3
BUS 205	Business Law I	3
BUS 240	Techniques of Selling	3
BUS 241	Human Resource Mgmt.	3
BUS 245	Prin. of Marketing	3
		21

Concentration

BUS 244	Business Statistics	
or		3
BUS 246	Risk Management	
BUS 249	Labor Relations	3
BUS 258	Supervisory Mgmnt.	3
BUS 275	Organizational Behavior	3
BUS 285	Compensation Mgmt.	3
		15

Other Required Courses

ACC 165	Acctg. for Managers	3
Economics Elective		3
		6

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
BUS 120	3	ACC 165	3	BUS 159	3	BUS 244 or BUS 246	3
BUS 160	3	BUS 158	3	BUS 241	3	BUS 245	3
CPT 150	3	BUS 205	3	BUS 249	3	BUS 258	3
ENG 161	3	BUS 240	3	BUS 275	3	BUS 285	3
Economics Elective	**3**	ENG 163 or ENG 164	3	SPC 155 or SPC 156	3	Social Science Elective	3
	15		**15**		**15**		**15**

Business, AAS

MARKETING MANAGEMENT OPTION

Division of Computer Technology/Business

The marketing management option provides an introduction to business and the basic principles of management with emphasis on marketing. The courses develop an understanding of the marketing process and provide insight into the use of advertising, sales, promotion and public relations.

Career Opportunities

Graduates of the marketing option can expect to find employment as assistant marketing managers, junior advertising executives, product managers, product designers, administrative assistants, project managers, and in positions in public relations and media. Job opportunities will be available in large corporations, small businesses and nonprofit organizations.

Competency Profile

This curriculum is designed to prepare students to:

- participate in gathering marketing data through standard survey techniques
- perform basic public relations functions such as maintaining files on company activities, searching secondary data sources for information, and maintaining schedules and obtaining cost estimates for publicity events
- act as administrative assistants to senior personnel in advertising departments, and in sales and sales promotion departments in television stations, radio stations and newspapers
- gain entry-level positions in advertising agency departments such as traffic and media, and perform account coordinator work in account service departments

PROGRAM REQUIREMENTS (TOTAL CREDITS — 60)

General Education

BUS 120	Math of Business	3
CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 163	Business Communication	
or		3
ENG 164	Advanced Composition	
SPC 155	Effective Speech	
or		3
SPC 156	Interpersonal Comm.	
Social Science Elective		3
		18

Major

BUS 158	Prin. of Management	3
BUS 159	Business Finance	3
BUS 160	Intro to Business	3
BUS 205	Business Law I	3
BUS 240	Techniques of Selling	3
BUS 241	Human Resource Mgmt.	3
BUS 245	Prin. of Marketing	3
		21

Concentration

MKT 242	Retailing	3
MKT 251	Consumer Behavior	3
MKT 252	Public Relations	3
MKT 253	Global Marketing	3
MKT 254	Advertising & Promotion	3
		15

Other Required Courses

ACC 165	Acctg. for Managers	3
Economics Elective		3
		6

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
BUS 120	3	ACC 165	3	BUS 159	3	BUS 245	3
BUS 160	3	BUS 158	3	BUS 241	3	MKT 242	3
CPT 150	3	BUS 205	3	MKT 251	3	MKT 252	3
ENG 161	3	BUS 240	3	MKT 254	3	MKT 253	3
Economics Elective	3	ENG 163 or ENG 164	3	SPC 155 or SPC 156	3	Social Science Elective	3
	15		**15**		**15**		**15**

Business, AAS

REAL ESTATE MANAGEMENT OPTION

Division of Computer Technology/Business

The real estate management option of the business degree program provides an introduction to business and the basic principles of management with a major emphasis on real estate practices and real estate management.

Career Opportunities

Graduates of the real estate management option will find employment as real estate brokers, property managers, property developers and personal financial planners. Job opportunities will be available in real estate firms, property management firms and in corporations that have real estate departments.

Competency Profile

This curriculum is designed to prepare students to:

- participate in the buying and selling of real estate for investment
- manage rental properties
- engage in real estate brokerage
- participate in real estate marketing and sales activities

PROGRAM REQUIREMENTS (TOTAL CREDITS — 61)

General Education

BUS 120	Math of Business	3
CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 163	Business Communication	
or		3
ENG 164	Advanced Composition	
SPC 155	Effective Speech	
or		3
SPC 156	Interpersonal Comm.	
Social Science Elective		3
		18

Major

BUS 158	Prin. of Management	3
BUS 159	Business Finance	3
BUS 160	Intro to Business	3
BUS 205	Business Law I	3
BUS 240	Techniques of Selling	3
BUS 241	Human Resource Mgmt.	3
BUS 245	Prin. of Marketing	3
		21

Concentration

RLS 101	Fund. of Real Estate	2
RLS 102	Real Estate Practices	2
RLS 107	Real Estate Brokerage	3
RLS 205	Property Management	
or		3
RLS 211	Real Estate Appraisal	
RLS 209	Real Estate Finance	3
RLS 210	Law of Real Estate	3
		16

Other Required Courses

ACC 165	Acctg. for Managers	3
Economics Elective		3
		6

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
BUS 120	3	ACC 165	3	BUS 159	3	BUS 245	3
BUS 160	3	BUS 158	3	BUS 241	3	RLS 209	3
CPT 150	3	BUS 205	3	RLS 101	2	RLS 210	3
ENG 161	3	BUS 240	3	RLS 102	2	RLS 205 or 211	3
Economics Elective	3	ENG 163 or ENG 164	3	RLS 107	3	Social Science Elective	3
	15		**15**	SPC 155 or SPC 156	3		**15**
					16		

Business, AAS

SMALL BUSINESS MANAGEMENT OPTION

Division of Computer Technology/Business

The small business management option provides students with an introduction to business and the basic principles of management and emphasizes the skills needed to operate and administer a small business enterprise.

Career Opportunities

Graduates of the small business management option can expect to find employment as assistant managers, junior department heads, administrative assistants and front-line supervisors in small businesses. Job opportunities will be available in small businesses, nonprofit organizations, and in franchise ownership and management.

Competency Profile

This curriculum is designed to prepare students to:

- participate in operating and managing small businesses
- assist small business owners in running their businesses
- start, operate and manage entrepreneurial organizations
- become competent in small business finance and operations

PROGRAM REQUIREMENTS (TOTAL CREDITS — 60)

General Education

BUS 120	Math of Business	3
CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 163	Business Communication	
or		3
ENG 164	Advanced Composition	
SPC 155	Effective Speech	
or		3
SPC 156	Interpersonal Comm.	
Social Science Elective		3
		18

Major

BUS 158	Prin. of Management	3
BUS 159	Business Finance	3
BUS 160	Intro to Business	3
BUS 205	Business Law I	3
BUS 240	Techniques of Selling	3
BUS 241	Human Resource Mgmt.	3
BUS 245	Prin of Marketing	3
		21

Concentration

BUS 155	Personal Finance	3
BUS 260	Small Business Mgmt.	3
BUS 262	Efft. Entrepreneurship	3
BUS 263	Small Business Finance	3
BUS 264	Small Business Oper.	3
		15

Other Required Courses

ACC 165	Acctg. for Managers	3
Economics Elective		3
		6

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
BUS 120	3	ACC 165	3	BUS 159	3	BUS 155	3
BUS 160	3	BUS 158	3	BUS 241	3	BUS 245	3
CPT 150	3	BUS 205	3	BUS 260	3	BUS 263	3
ENG 161	3	BUS 240	3	BUS 262	3	BUS 264	3
Economics Elective	3	ENG 163 or ENG 164	3	SPC 155 or SPC 156	3	Social Science Elective	3
	15		**15**		**15**		**15**

Business, Diploma

Division of Computer Technology/Business

The business diploma program is designed to provide the student with a selection of general business management courses.

Career Opportunities

Graduates of the general management option can expect to find employment as assistant managers, production managers, management trainees, quality control officers, warehouse managers and inventory managers.

Competency Profile

This curriculum is designed to prepare students to:

- participate in business management functions
- conduct marketing analysis and manage sales
- conduct financial analysis and manage finances
- join a small business as a member of management

PROGRAM REQUIREMENTS (TOTAL CREDITS — 36)

General Education

BUS 120	Math of Business	3
CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
Social Science Elective		3
		12

Major

BUS 158	Prin. of Management	3
BUS 159	Business Finance	3
BUS 160	Intro to Business	3
BUS 205	Business Law I	3
BUS 240	Techniques of Selling	3
BUS 241	Human Resources Mgmt.	3
BUS 245	Prin. of Marketing	3
		21

Other Required Courses

ACC 165	Acctg. for Managers	3
		3

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**	
ACC 165	3	BUS 159	3
BUS 120	3	BUS 205	3
BUS 158	3	BUS 240	3
BUS 160	3	BUS 241	3
CPT 150	3	BUS 245	3
ENG 161	3	Social Science Elective	3
	18		**18**

Business, Certificate

FINANCIAL MANAGEMENT
Division of Computer Technology/Business

The financial management certificate offers students the opportunity to gain proficiency in managing the financial function in a business.

Career Opportunities

Graduates of the financial management option can expect to find employment as bank managers, consumer loan officers, commercial lending managers, investment managers, insurance agents and financial analysts. Job opportunities will be available in the financial departments in large corporations and in commercial lending companies, consumer finance organizations, banks and insurance companies.

Competency Profile

This curriculum is designed to prepare students to:

- participate in developing and implementing a financial plan
- manage the financial activities in a business organization
- engage in investment planning and credit management

PROGRAM REQUIREMENTS (TOTAL CREDITS — 18)

ACC 165	Acctg. for Managers	3
BUS 159	Business Finance	3
BUS 190	Credit Management	3
BUS 246	Risk Management	3
BUS 259	Investments	3
BUS 263	Small Business Finance	3
		18

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
BUS 159	3	ACC 165	3
BUS 190	3	BUS 246	3
BUS 263	3	BUS 259	3
	9		**9**

Business, Certificate

GENERAL MANAGEMENT
Division of Computer Technology/Business

The general management certificate is designed to provide an introductory view of general management in an enterprise environment.

Career Opportunities

The general management certificate provides students with employment opportunities as assistant managers, production managers, management trainees, department supervisors, quality control officers, warehouse managers and inventory managers. Job opportunities will be available in large corporations, a variety of small businesses and nonprofit organizations.

Competency Profile

This curriculum is designed to prepare students to:

- participate in the management of a variety of business types
- become skilled in organizing and managing human resources
- act as an administrative assistant to business executives and managers

PROGRAM REQUIREMENTS (TOTAL CREDITS — 18)

ACC 165	Acctg. for Managers	3
BUS 120	Math of Business	3
BUS 158	Prin. of Management	3
BUS 159	Business Finance	3
BUS 160	Intro to Business	3
BUS 245	Prin. of Marketing	3
		18

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
BUS 120	3	ACC 165	3
BUS 158	3	BUS 159	3
BUS 160	3	BUS 245	3
	9		**9**

Business, Certificate

HUMAN RESOURCES MANAGEMENT
Division of Computer Technology/Business

The human resources management certificate is designed to prepare students for entry-level human resources management positions in a variety of organizations. The program of study develops basic competence in a focused range of essential human resources functions.

Career Opportunities

Graduates of the human resources management certificate can expect to find employment as compensation management specialists, safety management specialists and general human resources management specialists. Job opportunities will be available in large corporations, a variety of small businesses and nonprofit organizations.

Competency Profile

This curriculum is designed to prepare students to:

- implement marketing/sales skills applicable to the customer orientation of the employer
- supervise human resources in an organization
- utilize negotiating skills with employees and/or local union officials

PROGRAM REQUIREMENTS (TOTAL CREDITS — 18)

ACC 165	Acctg. for Managers	3
BUS 160	Intro to Business	3
BUS 244	Business Statistics	
or		3
BUS 246	Risk Management	
BUS 249	Labor Relations	3
BUS 275	Organizational Behavior	3
BUS 285	Compensation Mgmt.	3
		18

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
BUS 160	3	ACC 165	3
BUS 249	3	BUS 244 or BUS 246	3
BUS 275	3	BUS 285	3
	9		**9**

Business, Certificate

MARKETING MANAGEMENT
Division of Computer Technology/Business

The marketing management certificate offers students the opportunity to gain proficiency in managing the marketing function in a business.

Career Opportunities

Graduates of the marketing option can expect to find employment as assistant marketing managers, junior advertising executives, product managers, product designers, administrative assistants, project managers, and in positions in public relations and media. Job opportunities will be available in large corporations, small businesses and in nonprofit organizations.

Competency Profile

This curriculum is designed to prepare students to:

- participate in developing and implementing a marketing plan
- manage advertising, promotion and public relations activities in a marketing organization
- engage in planning and developing global marketing tasks

PROGRAM REQUIREMENTS (TOTAL CREDITS — 18)

BUS 245	Prin. of Marketing	3
MKT 242	Retailing	3
MKT 251	Consumer Behavior	3
MKT 252	Public Relations	3
MKT 253	Global Marketing	3
MKT 254	Advertising & Promotion	3
		18

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
BUS 245	3	MKT 242	3
MKT 251	3	MKT 252	3
MKT 254	3	MKT 253	3
	9		**9**

Business, Certificate

REAL ESTATE MANAGEMENT
Division of Computer Technology/Business

The real estate management certificate offers students the opportunity to gain proficiency in real estate brokerage and management.

Career Opportunities

Graduates of the real estate management option will find employment as real estate brokers, property managers, property developers and personal financial planners. Job opportunities will be available in real estate firms, property management firms and in corporations that have real estate departments.

Competency Profile

This curriculum is designed to prepare students to:

- participate in the buying and selling of real estate for investment
- manage rental property
- engage in real estate brokerage

PROGRAM REQUIREMENTS (TOTAL CREDITS — 16)

RLS 101	Fund. of Real Estate	2
RLS 102	Real Estate Practices	2
RLS 107	Real Estate Brokerage	
or		3
RLS 211	Real Estate Appraisal	
RLS 205	Property Management	3
RLS 209	Real Estate Finance	3
RLS 210	Law of Real Estate	3
		16

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
RLS 101	2	RLS 205	3
RLS 102	2	RLS 209	3
RLS 107 or 211	3	RLS 210	3
	7		**9**

Business, Certificate

SMALL BUSINESS MANAGEMENT
Division of Computer Technology/Business

The small business management certificate is designed to provide the student with an introduction to the ownership, operation and management of small business ventures.

Career Opportunities

Graduates of the small business management option can expect to find employment as assistant managers, junior department heads, administrative assistants and front-line supervisors in small businesses. Job opportunities will be available in small businesses, nonprofit organizations, and in franchise ownership and management.

Competency Profile

This curriculum is designed to prepare students to:

- participate in the management of small businesses
- become skilled in starting and managing small businesses
- act as an administrative assistant to a small business owner

PROGRAM REQUIREMENTS (TOTAL CREDITS —16)

ACC 120	Quickbooks - Basic	1
BUS 155	Personal Finance	3
BUS 260	Small Business Mgmt.	3
BUS 262	Effective Entrepreneurship	3
BUS 263	Small Business Finance	3
BUS 264	Small Business Oper.	3
		16

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
BUS 155	3	ACC 120	1
BUS 260	3	BUS 263	3
BUS 262	3	BUS 264	3
	9		**7**

Commercial Art and Design, AAS

Division of Public Service/Humanities/Social Sciences

Commercial art and design links the fundamentals of creative art practice with graphic design and print production. This program emphasizes the application of visual production in advertising related occupations, as well as the basics of traditional/digital print concepts. Students develop skills in traditional design and typography, computer and airbrush illustration, digital graphics and screen print production. Emphasis is placed upon the blending of these various elements to provide a dynamic opportunity for students.

Successful completion of this program leads to the associate in applied science degree.

Career Opportunities

Career opportunities for commercial artists exist in in-house printing facilities, advertising agencies, design studios, publishing and printing facilities, and display and signage firms. Positions in these organizations include paste-up artist, digital artist, sign painter, textile press operator, graphic designer and art director.

Competency Profile

This curriculum is designed to prepare students to:

- demonstrate core skills in basic mathematical processes, measurement, problem solving, workflow knowledge, laws, regulations and policies
- demonstrate core skills in design, illustration, typography, layout and computer literacy
- communicate in an effective, professional manner, both verbally and in writing
- prepare graphic images, operate scanning equipment, edit images, assemble page elements, build files according to lay-out, preflight files, and perform job intervention
- demonstrate the ability to meet deadlines and incorporate critique recommendations in the work
- work as part of a production team and plan the production of projects taking into account limitations of equipment, time and cost of materials
- independently read and research current technical material to broaden and hone their knowledge to effect efficient, effective visual communication for the needs of business, entertainment, publishing and graphic trades

PROGRAM REQUIREMENTS (TOTAL CREDITS — 63)

General Education

BUS 120	Math of Business	3
ENG 161	College Writing	3
ENG 163	Business Commun.	3
GCT 130	InDesign - Basic	3
SOC 160	Applied Human Relations	3
SPC 155	Effective Speech	3
		18

Major

COA 120	Print Technology	3
COA 140	Advertising Illustration	3
COA 142	Sign Graphics & Lettering	3
COA 150	Airbrush Techniques	3
COA 180	Production Procedures	3
COA 249	Comm. Art Portfolio Dev.	3
COA 256	Advertising	3
COA 285	Screen Printing Tech.	3
		24

***Restricted Art Electives**

ART 160 Design I
ART 161 Design II
ART 162 Drawing I
ART 163 Drawing II

Other Required Courses

CPT 110	Exploring Windows	1
CPT 120	Intro to the Internet	1
GCT 100	Macintosh OS	1
GCT 115	Digital Design - 2D	3
GCT 150	Illustrator - Basic	3
GCT 160	Photoshop - Basic	3
COA 199	Commer. Art Internship	3
Restricted Art Electives*		6
		21

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
COA 120	3	COA 180	3	BUS 120	3	COA 140	3
COA 150	3	COA 256	3	COA 142	3	COA 199	3
ENG 161	3	COA 285	3	CPT 120	1	COA 249	3
GCT 100	1	CPT 110	1	GCT 115	3	GCT 160	3
GCT 140	3	ENG 163	3	GCT 130	3	SOC 160	3
ART Elective	3	ART Elective	3	SPC 155	3		**15**
	16		**16**		**16**		

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Eastern Westmoreland Career and Technology Center, Northern Westmoreland Career and Technology Center and Mon Vally Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Computer Information Security, AAS

Division of Computer Technology/Business

The Computer Information Technology program provides students with extensive hands-on instruction in all facets of information security, network security, and PC security. Students will gain experience with the tools and techniques of security professionals. Topics covered include computer forensics, intrusion detection, anti-virus software, and firewalls, among others.

Career Opportunities

Graduates may find employment as analysts or consultants in private investigation firms, private security firms and supporting positions with local, state, and federal law enforcement agencies. Networking professionals may find employment as corporate security managers, Internet security consultants, security technicians, or other network positions with an emphasis on security.

Competency Profile

This curriculum is designed to prepare students to:

- identify and assess potential security risks against PCs, web sites, programs and networks
- develop and implement a security plan to minimize security threats and manage security risks
- develop familiarity with current security software and hardware
- assume the duties and responsibilities of a corporate or government agency security officer
- adhere to a moral code of ethics and understand the legal responsibilities in the security field
- develop oral, written and listening communication skills

Students enrolled in information security courses must obtain a current criminal record check.

PROGRAM REQUIREMENTS (TOTAL CREDITS — 61)

General Education

CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 162	Technical Communication	
or		
ENG 163	Business Commun.	3
or		
ENG 164	Advanced Composition	
SPC 155	Effective Speech	
or		3
SPC 156	Interpersonal Comm.	
Mathematics Elective		3
Social Science Elective		3
		18

Major

CIS 168	Prin. of Info Security	3
CIS 209	LAN Security	3
CIS 210	Internet Security	3
CIS 212	Computer Forensics	3
CIS 250	Network Intrusion Detect.	3
CIS 252	Digital Forensics	3
CIS 253	Commun. Security✦	3
		21

✦*capstone course*

Other Required Courses

CPT 120	Intro to the Internet	1
CPT 182	Operating Systems	3
CPT 183	Local Area Networks	3
CPT 214	Wireless Commun.	3
CPT 238	Wide Area Networking	3
CPT 248	PC Hardware	3
CPT 256	Linux Desktop	3
CRJ 163	Criminal Evidence	3
		22

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
CIS 168	3	CIS 210	3	CIS 209	3	CIS 250	3
CPT 120	1	CPT 182	3	CIS 212	3	CIS 252	3
CPT 150	3	CPT 183	3	CPT 214	3	CIS 253	3
ENG 161	3	CRJ 163	3	CPT 238	3	CPT 248	3
Mathematics Elective	3	ENG 162, 163 or 164	3	SPC 155 or 156	3	CPT 256	3
Social Science Elective	3		**15**		**15**		**15**
	16						

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Mon Vally Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Computer Information Security, Certificate

Division of Computer Technology/Business

This certificate is designed to provide an introduction to the theories and practices associated with information security. Law enforcement professionals can enhance their knowledge of cyber crimes by becoming more familiar with the intricacies of computer evidence handling and documentation, and cyber crime determination, evaluation, and prosecution. Current computer professionals can expand upon their existing networking experience by increasing their knowledge of information security and expanding their careers into the information security discipline. This certificate is currently available online.

Career Opportunities

Graduates may find employment opportunities in private investigation firms, private security firms as well as local law enforcement agencies. Networking professionals may find employment as corporate security managers, Internet security consultants, security technicians or other network positions with an emphasis on security.

Competency Profile

This curriculum is designed to prepare students to:

- communicate with law enforcement professionals and network professionals with respect to cyber crimes and information security
- determine the scope and cost of specific security intrusions
- evaluate potential security vulnerabilities
- administer local area network (LAN), wide area network (WAN), and Internet security procedures and devices

Students enrolled in information security courses must obtain a current criminal record check.

PROGRAM REQUIREMENTS (TOTAL CREDITS — 18)

General Education		
CIS 168	Prin. of Info Security	3
CIS 209	LAN Security	3
CIS 210	Internet Security	3
CIS 212	Computer Forensics	3
CPT 182	Operating Systems	3
CPT 183	Local Area Networks	3
		18

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
CIS 168	3	CIS 209	3
CPT 182	3	CIS 210	3
CPT 183	3	CIS 212	3
	9		**9**

Computer Numerical Control Technology, AAS

Division of Technologies/Culinary Arts/Mathematics/Sciences

In Westmoreland County, employment in the machining industry is increasing at a steady rate, creating a need for more trained machinists. In order to compete with foreign manufacturers, Westmoreland County shops are increasing the number of computer numerical controlled machines as well as other automated equipment. This has created a need for technicians, programmers and operators that is not being met at the present time.

Career Opportunities

Students completing this program can expect to be employed as CNC programmers, technicians and coordinators. This program can also benefit those who have a desire to be designers or managers.

Competency Profile

This curriculum is designed to prepare students to:

- develop the ability to execute quantitative design of machine products
- identify the basic components of a CADD/CAM system (hardware and software)
- perform an infinite number of 2-D machine tool path computations necessary to produce an advanced drafting and design portfolio
- apply concepts from physics, engineering, mechanics, mathematics, and drafting to the synthesis of durable mechanical machines and products
- analyze and select appropriate materials and components for designing and manufacturing industrial products
- communicate effectively and appropriately; record and report information significant to the job

PROGRAM REQUIREMENTS (TOTAL CREDITS — 62)

General Education

DFT 258	AutoCAD	4
ENG 161	College Writing	3
ENG 162	Technical Commun.	3
MTH 108	Math for the Tech. I	4
PHY 107	Applied Physics	4
Social Science Elective		3
		21

Major

CNC 100	Intro to CNC	3
CNC 200	CNC I	4
CNC 201	CNC II	4
DFT 266	Inventor	4
		15

Other Required Courses

DFT 105	Technical Drafting I	4
DFT 112	Intro to Design Mat. & Pro.	3
EGR 122	Industrial Safety	3
MTH 109	Math for the Tech. II	4
MTT 100	Intro to Metalworking	3
MTT 102	Geom. Dimen. & Toler.	3
MTT 105	Lathe I	3
MTT 110	Mill I	3
		26

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
DFT 105	4	CNC 100	3	CNC 200	4	CNC 201	4
DFT 112	3	MTH 109	4	DFT 258	4	DFT 266	4
MTH 108	4	MTT 102	3	ENG 161	3	EGR 122	3
MTT 100	3	MTT 105	3	PHY 107	4	ENG 162	3
	14	MTT 110	3		**15**	Social Science Elective	3
			16				**17**

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Fayette County Area Vocational-Technical School. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Computer Numerical Control Technology, Certificate

Division of Technologies/Culinary Arts/Mathematics/Sciences

In Westmoreland County, employment in the machining industry is increasing at a steady rate, creating a need for more trained machinists. In order to compete with foreign manufacturers, Westmoreland County shops are increasing the number of computer numerical controlled machines as well as other automated equipment. This has created a need for technicians, programmers and operators that is not being met at the present time.

Career Opportunities

Students completing this program can expect to be employed as CNC programmers, technicians and coordinators. This program can also benefit those who have a desire to be designers or managers.

Competency Profile

This curriculum is designed to prepare students to:

- develop the ability to execute quantitative design of machine products
- identify the basic components of a CADD/CAM system (hardware and software)
- perform an infinite number of 2-D machine tool path computations necessary to produce an advanced drafting and design portfolio
- apply concepts from physics, engineering, mechanics, mathematics, and drafting to the synthesis of durable mechanical machines and products
- analyze and select appropriate materials and components for designing and manufacturing industrial products
- communicate effectively and appropriately; record and report information significant to the job

This program is designed for those students with a machining background.

PROGRAM REQUIREMENTS (TOTAL CREDITS — 23)

	Major	
CNC 100	Intro to CNC	3
CNC 200	CNC I	4
CNC 201	CNC II	4
DFT 258	AutoCAD	4
DFT 259	Advanced AutoCAD	4
DFT 266	Inventor	4
		23

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**		**Fall Semester**	
CNC 100	3	CNC 200	4	CNC 201	4
DFT 258	4	DFT 259	4	DFT 266	4
	7		**8**		**8**

Computer Systems Electronics Technology, AAS

Division of Technologies/Culinary Arts/Mathematics/Sciences

The computer systems electronics technology program combines electronics and computer technologies. The fundamental courses in electronics are taught along with the specialized courses in digital and computer circuits. Students in this program will develop skills in troubleshooting and interfacing basic computer systems. Students will also gain experience in computer languages with advanced course work in networking systems.

Career Opportunities

This program is designed to prepare computer system technicians that have a blend of hardware and software skills. Positions will span the spectrum of occupational opportunities from system development and system manufacturing to field service.

Competency Profile

This curriculum is designed to prepare students to:

- work effectively with customers, consumers and associates
- operate various types of standard as well as specialized equipment to troubleshoot microprocessor based and computer equipment
- identify, analyze and troubleshoot problems using systems approach
- configure, design and implement computer based systems
- communicate effectively and appropriately; record and report information significant to the job
- apply concepts from physics, engineering, mathematics and computer architecture to the synthesis and repair of systems

PROGRAM REQUIREMENTS (TOTAL CREDITS — 62/63)

General Education

CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 162	Technical Commun.	
or		
ENG 163	Business Commun.	3
or		
ENG 164	Advanced Composition	
MTH 108	Math for Tech. I	4
PHY 155	College Physics I	4
Social Science Elective		3
		20

Major

CPT 145	Intro/Computer Tech	
or		3/4
ELC 212	Computer Systems Tech.	
CPT 181	Intro to Telecomm.	3
CPT 182	Operating Systems	3
CPT 183	Local Area Networks	3
CPT 248	PC Hardware	3
CPT 249	PC Troubleshooting	3
CPT 261	Windows Desktop Client	3
ELC 102	Electronic Devices	4
ELC 105	Elect. Instru. & Measure.	2
ELC 106	Circuit Analysis I	3
ELC 114	Digital Techniques	4
ELC 206	Microprocessors	4
ELC 211	Fiber Optics/Laser Tech.	
or		4
ELC 213	Microprocessor Applica.	
		42/43

Other Required Courses

None Required

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
CPT 145 or ELC 212	3/4	CPT 181	3	CPT 182	3	CPT 249	3
CPT 150	3	CPT 248	3	CPT 183	3	CPT 261	3
ELC 105	2	ELC 102	4	ELC 206	4	ELC 211 or 213	4
ELC 106	3	ELC 114	4	ENG 162, 163 or 164	3	Social Science Elective	3
MTH 108	4	ENG 161	3	PHY 155	4		**13**
	15/16		**17**		**17**		

Tech Prep Option

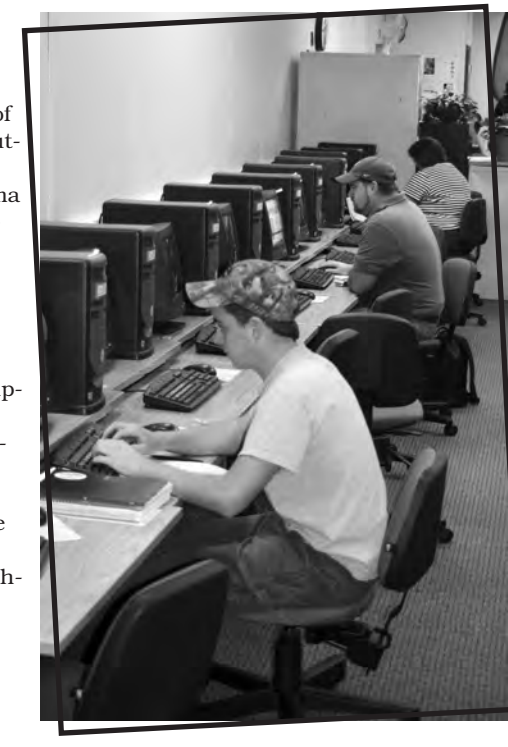
Tech Prep articulation agreements exist between WCCC and Central Westmoreland Career and Technology Center, Eastern Westmoreland Career and Technology Center, Northern Westmoreland Career and Technology Center, and Mon Valley Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Computer Technology

Technology and Change

Changes in the information technology industry are coming at an accelerated rate. The impact of the rapid growth of the Internet on our society is profound and far-reaching. As a stimulus, the Internet has led to new computer programming languages, the expanded use of databases and wide-area networking, and Web site development for electronic commerce. Theses changes have created an unprecedented demand for computer professionals with a wide variety of skills and knowledge.

The Computer Technology Department



The computer technology department at WCCC recognizes the changing nature of the computing profession and offers a wide range of programs and courses designed to prepare students for the challenges in the field of information technology. The associate in applied science degree in computer technology offers four options or concentrations: database/programming, networking, technical support and telecommunications. The diploma in computer technology is a shorter-term program that covers the fundamentals of computer technology. There are also six computer technology certificate programs that cover advanced topics in depth.

Associate in Applied Science Degree

The computer technology associate in applied science degree program is offered as four options: database/programming, networking, technical support and telecommunications. Each of these areas of concentration was chosen to reflect the projected needs of the information technology industry. The AAS degree program options provide a solid background along with a strong concentration in each area. The courses in these programs have been carefully selected to reflect those disciplines and skills that are in strong demand in the computing profession and that have significant growth potential. The associate in applied science degree in computer technology has been designed for completion in two years of full-time study.

Computer Technology Diploma

The computer technology diploma is a two-semester program designed to be a shorter alternative to the more comprehensive associate degree program. The diploma program provides an interdisciplinary look at computer technology at the introductory level. It includes many courses that can be applied to the associate degree. The diploma program can be used by the student as a final product or as an intermediate step toward the attainment of the associate degree.

Computer Technology Certificate

WCCC offers a total of seven certificates covering advanced technical topics. Certificates are available in: database development, fiber optic technologies, networking, microcomputer applications, programming, PC Repair/A+, and Web development. These short programs are designed for the student who is seeking a concentrated education in a specific aspect of computer technology. Certificates are particularly advantageous for the WCCC graduate or student in the workforce who needs to upgrade or expand his or her technical skills.

Complete descriptions of these programs appear on pages 63-71.

Computer Technology, AAS

NETWORKING OPTION

Division of Computer Technology/Business

The networking option of the computer technology program provides students with extensive hands-on instruction in all facets of local area network operation and administration. Students will learn to install, operate, maintain and troubleshoot these products in a corporate enterprise-networking environment.

Career Opportunities

Graduates of the networking option can expect to find employment as network administrators, network engineers, systems analysts, network technicians, technical sales representatives, customer service representatives, technical support analysts or IT trainers. Job opportunities will be available with network consulting and design firms as well as with any company that deploys a local area network.

Competency Profile

This curriculum is designed to prepare students to:

- install, configure, maintain and troubleshoot computer hardware
- analyze and design networking solutions for the organization
- configure and maintain network resources to satisfy organization requirements
- provide training and support to end users of networked equipment
- identify the resources needed to advance technical skills as the networking field changes
- establish proficiency in Microsoft Windows or Linux networking operating systems
- develop oral, written and listening communication skills

PROGRAM REQUIREMENTS (TOTAL CREDITS — 63)

General Education

CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 162	Technical Commun.	
or		
ENG 163	Business Commun.	3
or		
ENG 164	Advanced Composition	
SPC 155	Effective Speech	
or		3
SPC 156	Interpersonal Comm.	
Mathematics Elective		3
Social Science Elective		3
		18

Major

CPT 145	Intro/Computer Tech.	3
CPT 151	Advanced Office Applica.	3
CPT 181	Intro to Telecomm.	3
CPT 182	Operating Systems	3
CPT 183	Local Area Networks	3
CPT 198	Fiber Optic Tech.	3
CPT 214	Wireless Commun.	3
CPT 248	PC Hardware	3
CPT 249	PC Troubleshooting	3
CPT 256	Linux Desktop	3
CPT 261	Windows Desktop Client	3
CPT 262	Windows Server	3
CPT 263	Windows Ntwrk Infra.✦	3
CPT 264	Windows Active Directory	3
CPT 286	System Analysis & Dsgn.	3
		45

✦*capstone course*

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
CPT 145	3	CPT 151	3	CPT 214	3	CPT 198	3
CPT 150	3	CPT 181	3	CPT 248	3	CPT 249	3
ENG 161	3	CPT 182	3	CPT 256	3	CPT 263	3
Mathematics Elective	3	CPT 183	3	CPT 262	3	CPT 264	3
Social Science Elective	3	CPT 261	3	SPC 155 or SPC 156	3	CPT 286	3
	15	ENG 162, 163 or 164	3		**15**		**15**
			18				

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Central Westmoreland Career and Technology Center, Eastern Westmoreland Career and Technology Center, Northern Westmoreland Career and Technology Center, and Mon Valley Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Computer Technology, AAS

PROGRAMMING FOR THE ENTERPRISE OPTION

Division of Computer Technology/Business

Behind every application lies a database of storage of one of the most valuable assets of any enterprise - its data. Developed in consultation with professionals in the field, the programming for the enterprise option provides the student with a strong background in the programming and data extraction skills necessary for success as a programmer by providing hands-on experience in Visual Basic, JAVA, SQL and server programming tools of the day. Working independently or in teams, students learn to design, develop and debug programs to process this data to solve problems typically found in an enterprise.

Career Opportunities

Graduates of the programming for the enterprise option can expect to find employment as computer programmers, junior systems analysts, programmer analysts, technical sales representatives, technical support analysts, or web developers. Job opportunities will be available with consulting firms, Internet companies, Web development firms, and in organizations requiring development of in-house decision support or ad hoc systems.

Competency Profile

This curriculum is designed to prepare students to:

- analyze problems for development and design of information processing solutions
- use a programming language to develop efficient and well-structured application programs
- function as a member of a development team to determine program intent, output requirements, input needed and processing sequences for new programs
- maintain existing programs as internal and external requirements change
- develop test modules to verify program accuracy
- identify the resources needed to advance technical skills as the computer field changes
- develop oral, written, and listening communication skills

PROGRAM REQUIREMENTS (TOTAL CREDITS – 62)

General Education

CPT 150	Computer Concepts	3
ENG 161	College Writing	3
ENG 162	Technical Commun.	
or		
ENG 163	Business Commun.	3
or		
ENG 164	Advanced Composition	
SPC 155	Effective Speech	
or		3
SPC 156	Interpersonal Comm.	
Mathematics Elective		3
Social Science Elective		3
		18

Major

CPT 122	Visio	1
CPT 145	Intro/Computer Tech.	3
CPT 162	Visual BASIC.NET I	3
CPT 163	Java Programming	3
CPT 182	Operating Systems	3
CPT 196	Access for Windows	3
CPT 203	XHTML and JavaScript	3
CPT 206	Server Programming	3
CPT 208	Advanced Access	3
CPT 213	Java Programming II	3
CPT 235	Database Mgmnt. Sys.	3
CPT 242	Visual BASIC.NET II	3
CPT 271	Oracle SQL I	3
CPT 281	Oracle SQL II	3
CPT 286	Sys. Analysis & Dsgn.✦	3
		43

✦*capstone course*

Other Courses

OFT 100	Basic Keyboarding	1
		1

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
CPT 145	3	CPT 122	1	CPT 208	3	CPT 182	3
CPT 150	3	CPT 163	3	CPT 213	3	CPT 206	3
CPT 162	3	CPT 196	3	CPT 235	3	CPT 281	3
ENG 161	3	CPT 203	3	CPT 271	3	CPT 286	3
OFT 100	1	CPT 242	3	SPC 155 or 156	3	Social Science Elective	3
Mathematics Elective	3	ENG 162. 163 or 164	3		**15**		**15**
	16		**16**				

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Central Westmoreland Career and Technology Center, Eastern Westmoreland Career and Technology Center, and Northern Westmoreland Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Computer Technology, AAS

TECHNICAL SUPPORT OPTION

Division of Computer Technology/Business

The technical support option of the computer technology program provides students with a strong foundation in microcomputer applications, including operating systems, PC hardware, productivity applications and networking. Emphasis will be placed on the installation, configuration, operation, maintenance and troubleshooting of microcomputer hardware systems, operating systems and application software.

Career Opportunities

Graduates of the technical support option can expect to find employment as technical support technicians, LAN technicians, junior systems analysts, technical sales representatives, customer service technicians, help-desk analysts and IT trainers. Job opportunities will be available with companies in the fields of hardware manufacturing, software publishing, PC consulting, IT engineering and sales, and any company deploying microcomputers in the workplace.

Competency Profile

This curriculum is designed to prepare students to:

- understand the concepts of computer design and operation
- install, configure and troubleshoot a variety of operating systems
- install, configure and troubleshoot popular microcomputer applications
- describe the principles of WAN/LAN network administration
- access and evaluate current telecommunications technology
- troubleshoot and repair computer hardware and software
- install and configure network operating systems
- develop competency in the Microsoft Office productivity suite
- develop oral, written and listening communication skills

PROGRAM REQUIREMENTS (TOTAL CREDITS — 62)

General Education

CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 162	Technical Commun.	
or		
ENG 163	Business Commun.	3
or		
ENG 164	Advanced Composition	
SPC 155	Effective Speech	
or		3
SPC 156	Interpersonal Comm.	
Mathematics Elective		3
Social Science Elective		3
		18

Major

CPT 120	Intro to the Internet	1
CPT 145	Intro/Computer Tech.	3
CPT 181	Intro to Telecomm.	3
CPT 182	Operating Systems	3
CPT 183	Local Area Networks	3
CPT 185	PowerPoint	1
CPT 190	Word for Windows	3
CPT 195	Excel for Windows	3
CPT 196	Access for Windows	3
CPT 201	Web Design/Web Stndrds.	3
CPT 230	Integrated Office Applica.✦	3
CPT 248	PC Hardware	3
CPT 249	PC Troubleshooting	3
CPT 259	User Support Operations	3
CPT 261	Windows Desktop Client	3
CPT 286	System Analysis & Dsgn.	3
		44

✦*capstone course*

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester	
CPT 145	3
CPT 150	3
ENG 161	3
Mathematics Elective	3
Social Science Elective	3
	15

Spring Semester	
CPT 120	1
CPT 181	3
CPT 183	3
CPT 190	3
CPT 195	3
ENG 162, 163 or 164	3
	16

Fall Semester	
CPT 182	3
CPT 185	1
CPT 196	3
CPT 201	3
CPT 248	3
SPC 155 or SPC 156	3
	16

Spring Semester	
CPT 230	3
CPT 249	3
CPT 259	3
CPT 261	3
CPT 286	3
	15

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Central Westmoreland Career and Technology Center, Eastern Westmoreland Career and Technology Center, Northern Westmoreland Career and Technology Center, and Mon Valley Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Computer Technology, AAS

TELECOMMUNICATIONS OPTION

Division of Computer Technology/Business

The telecommunications option of the computer technology program provides an intensive, hands-on curriculum focusing on the emerging field of telecommunications technology. This program of study will prepare students to design, build, maintain and troubleshoot advanced computer networks. Emphasis will be placed on local and wide-area network systems, the Internet, IP telephony, fiber-optic media and wireless communications. Four Cisco Networking Academy classes are included in this program.

Career Opportunities

Graduates of the telecommunications option can expect to find employment as network support technicians, WAN/LAN technicians, junior systems analysts, customer service representatives, help-desk analysts or IT trainers. Job opportunities are available with companies in the fields of telecommunications, consulting, the Internet, e-commerce, IT engineering and sales, and any business deploying a local- or wide-area network.

Competency Profile

This curriculum is designed to prepare students to:

- understand the fundamentals of telecommunications systems
- install, configure, maintain and troubleshoot telecommunications hardware devices
- design and specify a telecommunications network
- design, configure, maintain and troubleshoot wireless communications systems
- configure, maintain and troubleshoot network routers and switches
- deploy the technology of IP telephony and digital voice communications systems
- develop expertise with long- and short-haul fiber optic media and associated equipment
- implement Windows-based networks in an enterprise environment
- employ proper troubleshooting methods for optimal diagnosis and repair of telecom problems
- develop oral, written and listening communication skills

PROGRAM REQUIREMENTS (TOTAL CREDITS — 62)

General Education

CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 162	Technical Commun.	
or		
ENG 163	Business Commun.	3
or		
ENG 164	Advanced Composition	
SPC 155	Effective Speech	
or		3
SPC 156	Interpersonal Comm.	
Mathematics Elective		3
Social Science Elective		3
		18

Major

CPT 143	IP Telephony	3
CPT 171	Telecom Fundamentals	5
CPT 182	Operating Systems	3
CPT 198	Fiber-Optic Tech.	3
CPT 211	Routing Technologies	5
CPT 214	Wireless Commun.	3
CPT 248	PC Hardware	3
CPT 256	Linux Desktop	3
CPT 257	Switching Technologies	5
CPT 261	Windows Desktop Client	3
CPT 286	System Analysis & Dsgn.	3
CPT 291	WAN Technologies✦	5
		44

✦*capstone course*

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
CPT 150	3	CPT 143	3	CPT 214	3	CPT 256	3
CPT 171	5	CPT 182	3	CPT 248	3	CPT 286	3
ENG 161	3	CPT 198	3	CPT 257	5	CPT 291	5
Mathematics Elective	3	CPT 211	5	CPT 261	3	Social Science Elective	3
	14	ENG 162, 163 or 164	3	SPC 155 or SPC 156	3		**14**
			17		**17**		

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Central Westmoreland Career and Technology Center, Eastern Westmoreland Career and Technology Center, Northern Westmoreland Career and Technology Center, and Mon Valley Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Computer Technology, Diploma

Division of Computer Technology/Business

Students develop skills in functional applications of the computer to a business environment. The diploma program introduces students to various aspects of the computer field and can be used as a goal or as an interim step in obtaining the AAS degree.

Career Opportunities

Graduates of the computer technology diploma program can expect to find employment as technical support technicians, technical sales representatives, customer service technicians, help-desk analysts and IT trainers.

Competency Profile

This curriculum is designed to prepare students to:

- install and maintain computer hardware and software
- use office productivity software to implement software solutions
- identify the resources needed to advance technical skills
- develop oral, written and listening communication skills

PROGRAM REQUIREMENTS (TOTAL CREDITS — 31)

General Education		
CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 162	Technical Commun.	
or		
ENG 163	Business Commun.	3
or		
ENG 164	Advanced Composition	
Mathematics Elective		3
		12

Major		
CPT 120	Intro to the Internet	1
CPT 145	Intro/Computer Tech.	3
CPT 151	Advanced Office Applica.	3
CPT 181	Intro to Telecomm.	3
CPT 182	Operating Systems	3
CPT 248	PC Hardware	3
CPT 249	PC Troubleshooting	3
		19

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester	
CPT 150	3
CPT 182	3
CPT 248	3
ENG 161	3
Mathematics Elective	3
	15

Spring Semester	
CPT 120	1
CPT 145	3
CPT 151	3
CPT 181	3
CPT 249	3
ENG 162, 163, or 164	3
	16

Computer Technology, Certificate

DATABASE APPLICATION DEVELOPMENT
Division of Computer Technology/Business

The database application development certificate provides students with an intensive experience in relational database management systems with emphasis on Access and Oracle SQL products.

Career Opportunities

Graduates of the database application development certificate can expect to find employment as database administrators, database operators, customer service representatives, technical sales representatives, technical support analysts and database trainers.

Competency Profile

This curriculum is designed to prepare students to:

- analyze problems for development and design of information processing solutions
- use appropriate design techniques to create data structures that provide for data accuracy
- become proficient in the use of current database management software

PROGRAM REQUIREMENTS (TOTAL CREDITS — 16)

CPT 110	Exploring Windows	1
CPT 196	Access for Windows	3
CPT 208	Advanced Access	3
CPT 235	Database Mgmt. Sys.	3
CPT 271	Oracle SQL I	3
CPT 281	Oracle SQL II	3
		16

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
CPT 110	1	CPT 208	3
CPT 196	3	CPT 235	3
	4	CPT 271	3
			9
		Fall Semester	
		CPT 281	3
			3

Computer Technology, Certificate

MICROCOMPUTER APPLICATIONS
Division of Computer Technology/Business

The microcomputer applications certificate offers instruction in the Microsoft Office suite of office productivity software products and will guide students toward professional certification.

Career Opportunities

Graduates of the microcomputer applications certificate can expect to find employment as technical support technicians, junior systems analysts, technical sales representatives, customer service technicians, help-desk analysts and IT trainers.

Competency profile

This curriculum is designed to prepare students to:

- analyze and solve business-related problems using applications in the Office suite
- design and create documents, spreadsheets, databases and presentations for business functions
- manage business related electronic communications

PROGRAM REQUIREMENTS (TOTAL CREDITS — 16)

CPT 185	PowerPoint	1
CPT 150	Microcomputer Concepts	3
CPT 190	Word for Windows	3
CPT 195	Excel for Windows	3
CPT 196	Access for Windows	3
CPT 230	Integrated Office Applic.	3
		16

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
CPT 150	3	CPT 190	3
CPT 185	1	CPT 195	3
	4	CPT 196	3
			9
		Fall Semester	
		CPT 230	3
			3

Computer Technology, Certificate

FIBER OPTIC TECHNOLOGIES

Division of Computer Technology/Business

The fiber optic technologies certificate provides the student with an intensive, hands-on educational experience in fiber optic technologies, focusing on multimode and single-mode fiber optic applications, installation, restoration, design and troubleshooting analysis. This certificate places emphasis on "fiber to the home" cabling systems, which is important to meeting the current employment opportunities for deploying "fiber to the home" technology upgrades in the telecommunication industry. Fiber optic laser based systems will be investigated. Fiber to the premise system installation, restoration and troubleshooting along with optical electronic interfacing will be deployed in the state-of-the-art fiber optics lab. This program of study will prepare students to design, build, maintain, and troubleshoot fiber optic networks.

Career Opportunities

Graduates of fiber optics technologies certificate can expect to find employment as fiber optic technicians, fiber optic cable installation technicians, fiber optic cable restoration specialists, technical sales representatives, customer service representatives, fiber optic technical support analysts or as fiber optics procurement specialists used with marketing and purchasing support functions.

Competency Profile

This curriculum is designed to prepare students to:

- understand the fundamentals of fiber optic systems
- install, configure, maintain, and troubleshoot fiber optic systems
- design and specify a fiber optic network
- design, configure, maintain, and troubleshoot fiber optic systems
- design and planning of fiber optic inside and outside plant cabling systems
- restore fiber optic systems
- develop expertise with long and short haul fiber optic media and associated equipment
- employ proper troubleshooting methods for optimal diagnosis and repair of fiber optic systems problems utilizing state of the art optic instrumentation or test equipment

PROGRAM REQUIREMENTS (TOTAL CREDITS – 16)

	Major	
CPT 120	Intro to the Internet	1
CPT 183	Local Area Networks	3
CPT 198	Fiber Optic Tech.	3
CPT 219	Fiber Optic Anlys. & Dsg.	3
CPT 222	Fiber Optic Sys. Testing	3
CPT 238	Wide Area Networking	3
		16

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
CPT 120	1	CPT 219	3
CPT 183	3	CPT 222	3
CPT 198	3	CPT 238	3
	7		**9**

Computer Technology, Certificate

NETWORKING

Division of Computer Technology/Business

The networking certificate provides students with an intensive educational experience in local area networking, focusing on the Microsoft Windows 2000 network operating system.

Career Opportunities

Graduates of the networking certificate can expect to find employment as a network administrators, network technicians, technical sales representatives, customer service representatives, technical support analysts or IT trainers.

Competency Profile

This curriculum is designed to prepare students to:

- install, configure, operate and troubleshoot Windows desktop client and server network operating systems
- implement and solve network operating system problems
- implement and maintain Windows client and server software in an enterprise environment

PROGRAM REQUIREMENTS (TOTAL CREDITS — 16)

CPT 120	Intro to the Internet	1
CPT 183	Local Area Networks	3
CPT 261	Windows Desktop Client	3
CPT 262	Windows Server	3
CPT 263	Windows Network Infrastr.	3
CPT 264	Windows Active Direct.	3
		16

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
CPT 120	1	CPT 262	3
CPT 183	3		**3**
CPT 261	3		
	7	**Fall Semester**	
		CPT 263	3
		CPT 264	3
			6

Computer Technology, Certificate

PC REPAIR/A+

Division of Computer Technology/Business

The PC repair certificate program prepares the student for employment as a PC repair technician and provides the instructional material to prepare for the A+ industry certification exam.

Career Opportunities

Graduates of the PC Repair/A+ certificate program can expect to find employment as technical support technicians, computer repair technicians, technical sales representatives, customer service technicians, help-desk analysts and IT trainers.

Competency Profile

This curriculum is designed to prepare students to:

- install, configure and operate MS-DOS, Windows 9x and Linux operating systems
- understand the architecture and troubleshoot several popular PC operating systems
- become proficient in the installation and configuration of PC hardware

PROGRAM REQUIREMENTS (TOTAL CREDITS — 17)

CPT 150	Microcomputer Concepts	3
CPT 182	Operating Systems	3
CPT 183	Local Area Networks	3
CPT 248	PC Hardware	3
CPT 249	PC Troubleshooting	3
CPT 274	A+ Certification Review	2
		17

RECOMMENDED SEQUENCE

Fall Semester		**Fall Semester**	
CPT 150	3	CPT 249	3
CPT 248	3		**3**
	6		
		Spring Semester	
Spring Semester		CPT 274	2
CPT 182	3		**2**
CPT 183	3		
	6		

Computer Technology, Certificate

PROGRAMMING

Division of Computer Technology/Business

The programming certificate offers the student a firm foundation in Visual Basic and Java, two of the most popular programming languages being used in industry.

Career Opportunities

Graduates of the programming certificate can expect to find employment as computer programmers, programmer analysts, technical sales representatives, technical support analysts and web developers.

Competency Profile

This curriculum is designed to prepare students to:

- build full-featured Windows application programs
- enhance application design with object-oriented programming skills
- create, test and debug computer programs

PROGRAM REQUIREMENTS (TOTAL CREDITS — 17)

CPT 110	Exploring Windows	1
CPT 162	Visual BASIC.NET I	3
CPT 163	Java Programming I	3
CPT 180	C++ Programming	3
CPT 213	Java Programming II	3
CPT 242	Visual BASIC.NET II	3
OFT 100	Basic Keyboarding	1
		17

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
CPT 110	1	CPT 180	3
CPT 162	3	CPT 213	3
CPT 163	3	CPT 242	3
OFT 100	1		**9**
	8		

Computer Technology, Certificate

WEB DEVELOPMENT

Division of Computer Technology/Business

The Web development certificate offers the student exposure to a variety of Web page development tools and modern programming languages.

Career Opportunities

Graduates of the Web development certificate program can expect to find employment as computer programmers, systems analysts, PC technicians, programmer analysts, technical sales representatives, technical support analysts or Web developers.

Competency Profile

This curriculum is designed to prepare students to:

- design and create Internet and intranet based Web solutions
- enhance Web sites with interactivity for real-time processing
- identify and correct problems associated with Web sites

PROGRAM REQUIREMENTS (TOTAL CREDITS — 17)

CPT 120	Intro to the Internet	1
CPT 201	Web Design/Web Stndrds.	3
CPT 203	XHTML/JavaScript	3
CPT 206	Server Programming	3
CPT 207	Beginning XML	3
GCT 102	Acrobat Essentials	1
WEB 140	Dreamweaver - Basic	3
		17

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
CPT 120	1	CPT 206	3
CPT 201	3	CPT 207	3
CPT 203	3	GCT 102	1
WEB 140	3		**7**
	10		

Criminal Justice, AAS

Division of Public Service/Humanities/Social Sciences

The criminal justice career option is designed for those who want to seek entry level employment after earning their associate degree.

The required courses provide a broad-based introduction to the field of criminal justice. In addition, credits of elective courses allow students to focus their study on areas of particular interest.

Successful completion of this program of study leads to the associate in applied science degree.

Career Opportunities

Recent graduates of the criminal justice program have obtained jobs with the following titles: corrections officer, security manager, police officer and youth worker.

Competency Profile

This curriculum is designed to prepare students to:

- apply relevant laws, regulations and procedures to a law enforcement situation
- learn to apply critical thinking skills in a law enforcement environment
- analyze information from criminal justice agencies and sources
- manage criminal justice information via technology
- analyze and evaluate data and research relating to the criminal justice profession
- practice positive interaction with the criminal justice community and other related agencies
- understand community diversification in a law enforcement environment
- develop effective police/community relations
- practice positive interpersonal and communication skills as a member of the criminal justice environment
- effect relevant procedures for handling a juvenile delinquent case
- practice appropriate investigative techniques
- adhere to accepted practices involved in criminal procedures related to assist, force, search and seizure
- develop effective decision making abilities
- evaluate criminal justice programs
- develop criminal justice relationships and workplace skills
- understand the importance of physical fitness as a law officer

In addition, students may opt to acquire additional skills in the following areas:

- correctional institution care of adults and juveniles
- administering probation and parole
- analysis of criminal evidence in the laboratory
- participation in community relations programs
- adhere to practices found in the criminal justice system

PROGRAM REQUIREMENTS (TOTAL CREDITS — 60)

General Education

CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 162	Technical Commun.	
or		
ENG 164	Advanced Composition	3
or		
ENG 166	Spcl. Topics/CRJ Writing	
PSY 160	General Psychology	3
Humanities Elective		3
Mathematics Elective		3
		18

Major

CRJ 155	Intro. to Crim. Justice	3
CRJ 160	Criminal Law I	3
CRJ 162	Police Administration I	3
CRJ 163	Criminal Evidence	3
CRJ 172	Drug & Alcohol Depend.	3
CRJ 255	Juvenile Delinquency	3
CRJ 263	Investigative Concepts	3
CRJ 290	Prin. of Criminology	3
Criminal Justice Electives		9
		33

Other Required Courses

SOC 155	Principles of Sociology	3
SPC 155	Effective Speech	3
General Elective		3
		9

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
CPT 150	3	CRJ 163	3	CRJ 255	3	CRJ 162	3
CRJ 155	3	CRJ 172	3	CRJ 263	3	SPC 155	3
CRJ 160	3	ENG 162, 164 or 166	3	CRJ 290	3	Criminal Justice Elective	6
ENG 161	3	SOC 155	3	Criminal Justice Elective	3	General Elective	3
PSY 160	3	Criminal Justice Elective	3	Humanities Elective	3		**15**
	15	Mathematics Elective	3		**15**		
			15				

Criminal Justice, AAS

INFORMATION SECURITY OPTION

Division of Public Service/Humanities/Social Sciences

The information security option of the criminal justice program provides students with extensive hands-on instruction in all facets of information security, network security, and PC security. Students will be exposed to the tools and techniques of security and law enforcement professionals. Topics covered include computer forensics, intrusion detection, anti-virus software, firewalls, criminal law, evidence gathering and investigation techniques. A degree option with greater emphasis on computer technology can be found on page 55.

All accepted applicants must submit evidence of (ACT 33-34) criminal record check and Pennsylvania Child Abuse History Clearance at the applicant's expense. Specific information regarding this requirement will be provided to qualified applicants.

Career Opportunities

Law enforcement/computer technology professionals may find employment opportunities in private investigation firms, private security firms as well as local law enforcement agencies. Networking professionals may find employment as a corporate security manager, Internet security consultant, security technician or other network position with an emphasis on security.

Competency Profile

This curriculum is designed to prepare students to:

- apply relevant laws, regulations and procedures to a law enforcement situation
- practice appropriate investigative techniques
- adhere to accepted practices involved in criminal procedures related to search and seizure
- identify and assess potential security risks against PCs, web sites, programs and networks
- develop and implement a security plan to minimize security threats and manage security risks
- develop familiarity with current security software and hardware
- understand the duties and responsibilities of a corporate security officer
- demonstrate a moral code of ethics and understand the legal responsibilities in the security field

Students enrolled in information security courses must obtain a current criminal record check.

PROGRAM REQUIREMENTS (TOTAL CREDITS — 63)

General Education

CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 162	Technical Commun.	
or		
ENG 163	Business Commun.	3
or		
ENG 164	Advanced Composition	
SPC 155	Effective Speech	
or		3
SPC 156	Interpersonal Commun.	
Mathematics Elective		3
Social Science Elective		3
		18

Major

CRJ 155	Intro. to Crim. Justice	3
CRJ 163	Criminal Evidence	3
CRJ 195	Intro to Private Security	
or		3
CRJ 220	Research Methods	
CRJ 263	Investigative Concepts	3
CRJ 265	White Collar Crime	
or		3
CRJ 296	Intro to Criminalistics	
		15

Other Required Courses

CIS 168	Prin. of Info Security	3
CIS 209	LAN Security	3
CIS 210	Internet Security	3
CIS 212	Computer Forensics	3
CIS 250	Network Intrusion Det.	3
CIS 252	Digital Forensics	3
CIS 253	Commun. Security	3
CPT 182	Operating Systems	3
CPT 183	Local Area Networks	3
CPT 238	Wide Area Networking	3
		30

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
CIS 168	3	CIS 209	3	CIS 212	3	CIS 252	3
CPT 150	3	CIS 210	3	CIS 250	3	CIS 253	3
CPT 183	3	CPT 182	3	CPT 238	3	CRJ 265 or 296	3
CRJ 155	3	CRJ 163	3	CRJ 195	3	SPC 155 or 156	3
ENG 161	3	ENG 162, 163 or 164	3	CRJ 263 or 220	3	Social Science Elective	3
	15	Mathematics Elective	3		**15**		**15**
			18				

Criminal Justice, Certificate

CORRECTIONS OFFICER

Division of Public Service/Humanities/Social Sciences

The corrections officer certificate is designed for those who seek entry level employment with a corrections facility.

Competency Profile

This curriculum is designed to prepare students to:

- provide correctional institution care of adults and/or juveniles
- apply relevant laws, regulations and procedures within a correctional facility
- adhere to practices found in the criminal justice system

PROGRAM REQUIREMENTS (TOTAL CREDITS — 18)

CRJ 155	Intro to Criminal Just.	3
CRJ 180	Corrections	3
CRJ 255	Juvenile Delinquency	3
CRJ 283	Inst. Trtmnt. of Ad. & Jvnl.	3
CRJ 290	Criminology	3
CRJ 172	Drug & Alcohol Dpdncy.	3
		18

Culinary Arts, AAS

APPRENTICESHIP OPTION

Division of Technologies/Culinary Arts/Mathematics/Sciences

The culinary arts apprenticeship program is one of seven majors comprising the college's hospitality program. This apprenticeship program, sponsored by The American Culinary Federation Laurel Highlands (ACFLHC) Chapter and WCCC, is accredited by the Accrediting Commission of the American Culinary Federation Foundation. A cooperative program, it combines 63 or 64 credits of academic course work with 4,000 hours of supervised on-the-job training in a participating restaurant, club, hotel, resort or institution for an associate degree. Classes are scheduled so that students have a sufficient block of uninterrupted time to complete their 40-hour week. Academic work can be completed as a full-time student in two years or as a part-time student over a period of three years.

Students enrolled in this program are registered with the U.S. Department of Labor as apprentices and are required to join the ACF Laurel Highlands Chapter as junior members.

Students are expected to be well-groomed in compliance with the standards of sanitation. Students will be required to present medical proof of good physical health. Uniforms, decorative tips and a cutlery set are required for all lab classes.

Employment must be secured in a facility that will provide full-time employment. The employer will agree to abide by the apprenticeship guidelines.

Having fulfilled employment requirements, applicants will complete the Pennsylvania Apprenticeship and Training Council Agreement and ACF Apprenticeship Registration Card.

At the completion of the program, students may apply for certification with the ACF. This is the first level of certification within the ACF and may lead to the highest level of certification, Master Chef.

The culinary arts associate degree apprenticeship option may be completed through a partnership with Nemacolin Woodlands Resort. For information, contact the WCCC Admissions Office, 724-925-4077.

Career Opportunities

Graduates of the culinary arts program have accepted jobs with the following titles: cook, working chef, sous chef, personal chef, sales representative, executive chef, culinary educator and manager.

Competency Profile

This curriculum is designed to prepare students to:

- research, prepare, season and cook according to recipe and local, regional and international traditions and diversity: soups, sauces, salads, meats, fish poultry, game, vegetables and desserts using acceptable standards of sanitation and safety
- adhere to standards of nutrition and wellness in food preparation
- creatively design set up and prepare complete buffets and serve meals
- research, select and develop recipes and entire menus with descriptive wording, layout and design
- plan and execute food production, requisition and purchase foodstuffs, and operate a working budget in food and labor costing
- research, evaluate and recognize quality standards in fresh vegetables, meats, poultry, game and all other foodstuffs
- demonstrate supervisory and interpersonal skills in the production operations of a food service team
- demonstrate basic skills in culinary artistries including ice carving, tallow sculpting, cake decorating and garniture display
- utilize the high-tech approach to maintain acceptable systems of operation

PROGRAM REQUIREMENTS (TOTAL CREDITS — 63/64)

General Education

CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 163	Business Commun.	3
Humanities Elective		3
Mathematics Elective		3
Social Science Elective		3
		18

Major

BKP 141	Baking I	4
CUL 121	Chef Apprenticeship I	2
CUL 122	Chef Apprenticeship II	2
CUL 123	Chef Apprenticeship III	2
CUL 132	Garde Manger	3
CUL 224	Chef Apprenticeship IV	2
CUL 232	Food Specialties	3
		18

Other Required Courses

FSM 103	Intro. to Hospitality Ind.	
or		3
FSM 113	Customer Service	
FSM 105	Foods I	4
FSM 112	Quantity Foods	4
FSM 117	Wait Staff Training	1
FSM 118	Sanitation	2
FSM 119	Bev./Dining Rm. Mgmt.	1
or		
FSM 120	Wine Appre. & Serv.	1
FSM 159	Nutrition	
or		3/4
BKP 243	Healthy Cooking Trends	
FSM 215	Food Purchasing & Menu Mgmt.	3
FSM 218	Hospitality Marketing	3
FSM 235	Supervision & Training	3
		27/28

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester

CUL 121	2
FSM 103 or 113	3
FSM 105	4
FSM 117	1
FSM 118	2
	12

Spring Semester

BKP 141	4
CUL 122	2
FSM 235	3
FSM 218	3
	12

Summer Semester*

CPT 150	3
ENG 161	3
	6

Fall Semester

CUL 123	2
FSM 112	4
FSM 215	3
CUL 132	3
	12

Spring Semester

CUL 224	2
CUL 232	3
FSM 119 or 120	1
FSM 159 or BKP 243	3/4
Mathematics Elective	3
	12/13

Summer Semester*

ENG 163	3
Humanities Elective	3
Social Science Elective	3
	9

***These courses may be taken in the fall and spring semester resulting in the student having full-time status. However, given the 40 hours per week required apprenticeship, it is recommended that students take these courses during the summer.**

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Central Westmoreland Career and Technology Center, Eastern Westmoreland Career and Technology Center, Northern Westmoreland Career and Technology Center, Fayette County Area Vocational-Technical School, Lenape Area Vocational-Technical School, and Mon Valley Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Culinary Arts, Certificate

APPRENTICESHIP OPTION

Division of Technologies/Culinary Arts/Mathematics/Sciences

The culinary arts apprenticeship program is one of seven majors comprising the college's hospitality program. This apprenticeship program is sponsored by the American Culinary Federation Laurel Highlands (ACFLHC) Chapter and WCCC. A cooperative program, it combines 45/46 credits of course work with 4,000 hours of supervised on-the-job training in a participating restaurant, club, hotel or institution. Classes are scheduled so that students have a sufficient block of uninterrupted time to complete their 40-hour week. Academic work can be completed as a full-time student in two years or as a part-time student over a period of three years.

Students enrolled in this program are registered with the U.S. Department of Labor as apprentices and are required to join the ACF Laurel Highlands Chapter as junior members.

Students are expected to be well-groomed in compliance with the standards of sanitation. Students will be required to present medical proof of good physical health. Uniforms, decorative tips and a cutlery set are required for all lab classes.

Employment must be secured in a facility that will provide full-time employment. The employer will agree to abide by the apprenticeship guidelines.

Having fulfilled employment requirements, applicants will complete the Pennsylvania Apprenticeship and Training Council Agreement and ACF Apprenticeship Registration Card.

At the completion of the program, students may apply for certification with the ACF. This is the first level of certification within the ACF and may lead to the highest level of certification, Master Chef. The culinary arts apprenticeship option certificate program may be completed through a partnership with Nemacolin Woodlands Resort. For more information, contact the WCCC Admissions Office, 724-925-4077.

Career Opportunities

Graduates of the culinary arts program have accepted jobs with the following titles: cook, station chef, working chef, sous chef, personal chef, sales representative, executive chef, culinary educator and manager.

Competency Profile

This curriculum is designed to prepare students to:

- research, prepare, season and cook according to recipe and local, regional and international traditions and diversity: soups, sauces, salads, meats, fish poultry, game, vegetables and desserts using acceptable standards of sanitation and safety
- adhere to standards of nutrition and wellness in food preparation
- creatively design set up and prepare complete buffets and serve meals
- research, select and develop recipes and entire menus with descriptive wording, layout and design
- plan and execute food production, requisition and purchase foodstuffs, and operate a working budget in food and labor costing
- research, evaluate and recognize quality standards in fresh vegetables, meats, poultry, game and all other foodstuffs
- demonstrate supervisory and interpersonal skills in the production operations of a food service team
- demonstrate basic skills in culinary artistries including ice carving, tallow sculpting, cake decorating and garniture display
- utilize the high-tech approach to maintain acceptable systems of operation

Culinary Arts, Certificate

APPRENTICESHIP OPTION (CONTINUED)

Division of Technologies/Culinary Arts/Mathematics/Sciences

PROGRAM REQUIREMENTS (TOTAL CREDITS – 45/46)

General Education

None Required

Major

BKP 141	Baking I	4
CUL 121	Apprenticeship I	2
CUL 122	Apprenticeship II	2
CUL 123	Apprenticeship III	2
CUL 124	Garde Manger	3
CUL 224	Apprenticeship IV	2
Food Specialities		3
		18

Other Required Courses

FSM 103	Intro to Hospitality Ind.	
or		3
FSM 113	Customer Service	
FSM 105	Foods I	4
FSM 112	Quantity Foods	4
FSM 117	Wait Staff Training	1
FSM 118	Sanitation	2
FSM 119	Bev./Dining Rm. Mgmt.	
or		1
FSM 120	Wine Apprec. & Service	
FSM 159	Nutrition	
or		3/4
BKP 243	Healthy Cooking Trends	
FSM 215	Food Purchasing & Menu Mgmt.	3
FSM 218	Hospitality Marketing	3
FSM 235	Supervision & Training	3
		27/28

RECOMMENDED SEQUENCE

Fall Semester	
CUL 121	2
FSM 103 or 113	3
FSM 105	4
FSM 117	1
FSM 118	2
	12

Spring Semester	
BKP 141	4
CUL 122	2
FSM 218	3
FSM 235	3
	12

Fall Semester	
CUL 123	2
CUL 132	3
FSM 112	4
FSM 215	3
	12

Spring Semester	
CUL 224	2
CUL 232	3
BKP 243 or FSM 159	3/4
FSM 119 or 120	1
	9/10

Culinary Arts, AAS

NON-APPRENTICESHIP OPTION

Division of Technologies/Culinary Arts/Mathematics/Sciences

The culinary arts non-apprenticeship program is one of seven majors comprising the college's hospitality program. This curriculum is planned to meet the increasing employment needs of the 21st century for trained chefs and culinary experts. The program includes classroom and food laboratory experiences and requires students to complete an internship. This option accommodates both part- and full-time students and is available in two-year and 16-month programs. Students are expected to be well-groomed in compliance with standards of sanitation. Students will be required to provide medical proof of good physical health. Uniforms, decorative tips and a cutlery set are required for all lab classes.

Although the non-apprenticeship program accommodates part-time students, full-time students may complete the program in two years.

The program is accredited by the Accrediting Commission of the American Culinary Federation Foundation.

Career Opportunities

Graduates of the culinary arts program have accepted jobs with the following titles: cook, working chef, station chef, sous chef, personal family chef, sales representative, executive chef, culinary educator and manager.

Competency Profile

This curriculum is designed to prepare students to:

- research, prepare, season and cook according to recipe and local, regional and international traditions and diversity: soups, sauces, salads, meats, fish, poultry, game, vegetables and desserts using acceptable standards of sanitation and safety
- adhere to standards of nutrition and wellness in food preparation
- creatively design set up and prepare complete buffets
- research, select and develop recipes and entire menus with descriptive wording, layout and design
- plan and execute food production, requisition and purchase foodstuffs, and operate a working budget in food and labor costing
- research, evaluate and recognize quality standards in fresh vegetables, meats, poultry, game and all other foodstuffs
- demonstrate supervisory and interpersonal skills in the production operations of a food service team
- demonstrate the personal skills needed to function with all other related departments that exist in a food operation team
- demonstrate basic skills in culinary artistries including ice carving, tallow sculpting, cake decorating and garniture display
- utilize the high-tech approach to maintain acceptable systems of operation

PROGRAM REQUIREMENTS (TOTAL CREDITS — 68/69)

General Education

CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 163	Business Commun.	3
Humanities Elective		3
Mathematics Elective		3
Social Science Elective		3
		18

Major

CUL 130	Basic Culinary Skills	3
CUL 132	Garde Manger	3
CUL 232	Food Specialties	3
FSM 103	Intro. to Hospitality Ind.	
or		3
FSM 113	Customer Service	
FSM 105	Foods I	4
FSM 112	Quantity Foods	4
FSM 117	Wait Staff Training	1
FSM 118	Sanitation	2
FSM 119	Bever./Dining Rm. Mgmt.	1
or		
FSM 120	Wine Appre. & Serv.	1
FSM 159	Nutrition	
or		3/4
BKP 243	Healthy Cooking Trends	
FSM 213	A la Carte Kitchen	4
FSM 215	Food Purch. & Menu Mgmt.	3
FSM 218	Hospitality Marketing	3
FSM 219	Hospitality Internship	3
FSM 235	Supervision & Training	3
		43/44

Other Required Courses

BKP 141	Baking I	4
BKP 142	Baking II	3
		7

RECOMMENDED SEQUENCE (Two-year Program)

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester	
CPT 150	3
CUL 130	3
FSM 103 or 113	3
FSM 105	4
FSM 117	1
FSM 118	2
FSM 119 or FSM 120	1
	17

Spring Semester	
BKP 141	4
ENG 161	3
FSM 112	4
FSM 215	3
Mathematics Elective	3
	17

Summer Semester	
ENG 163	3
	3

Fall Semester	
CUL 132	3
FSM 159 or BKP 243	3/4
FSM 213	4
FSM 219	3
Humanities Elective	3
	16/17

Spring Semester	
BKP 142	3
CUL 232	3
FSM 218	3
FSM 235	3
Social Science Elective	3
	15

RECOMMENDED SEQUENCE (Accelerated Program - 16 months)

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester	
CPT 150	3
CUL 130	3
FSM 103 or 113	3
FSM 105	4
FSM 118	2
FSM 159 or BKP 243	3/4
	18/19

Spring Semester	
CUL 132	3
ENG 161	3
FSM 112	4
FSM 117	1
FSM 215	3
FSM 218	3
	17

Summer Semester	
BKP 141	4
ENG 163	3
Humanities Elective	3
Mathematics Elective	3
Social Science Elective	3
	16

Fall Semester	
BKP 142	3
CUL 232	3
FSM 119 or FSM 120	1
FSM 213	4
FSM 219	3
FSM 235	3
	17

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Central Westmoreland Career and Technology Center, Eastern Westmoreland Career and Technology Center, Northern Westmoreland Career and Technology Center, Fayette County Area Vocational-Technical School, Lenape Area Vocational-Technical School, and Mon Valley Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Culinary Arts, Certificate

NON-APPRENTICESHIP OPTION

Division of Technologies/Culinary Arts/Mathematics/Sciences

The certificate in culinary arts is designed to provide entry level skills for the culinary arts profession. Sanitation standards are emphasized. Hands-on experiences are provided through the Foods I, Baking I and Basic Culinary Skills classes. Uniforms and cutlery sets are required. Students will be required to provide medical proof of good physical health.

Career Opportunities

Graduates of the culinary arts certificate program may accept jobs as cooks, food service assistant supervisors, station cooks, and personal family cooks.

Competency Profile

This curriculum is designed to prepare students to:

- utilize kitchen and bakery tools and equipment in a safe and sanitary manner
- research, prepare, season and cook according to recipe and local, regional and international traditions and diversity: soups, sauces, salads, meats, fish, poultry, game, vegetables and desserts using acceptable standards of sanitation and safety
- set up preparation station
- develop manual dexterity as it relates to cooking techniques
- evaluate, research and identify quality standards in fresh vegetables, meats, poultry, game and all other foodstuffs
- demonstrate the personal skills needed and the ability to function with all other related departments that exist in a food operation team
- serve food that is creatively arranged with the proper balance of color, shape and texture
- use correct techniques, skills and principles in preparing food and bakery products
- identify employability skills

PROGRAM REQUIREMENTS (TOTAL CREDITS — 16)

BKP 141	Baking I	4
CUL 130	Basic Culinary Skills	3
FSM 103	Intro to Hospitality	
or		3
FSM 113	Customer Service	
FSM 105	Foods I	4
FSM 118	Sanitation	2
		16

Dental Assisting, Diploma

Division of Health Professions/Biology

The dental assisting program offers the academic preparation and clinical training necessary to secure employment as a dental assistant. Dental assistants are employed by dentists in general and specialty practices as well as hospital dental clinics.

The program includes clinical experience in all phases of dentistry while rotating through departments at the University of Pittsburgh School of Dental Medicine and private dental offices.

The program is accredited by the Commission on Dental Accreditation of the American Dental Association. The commission is a special accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at 312-440-2719 or at 211 East Chicago Ave., Chicago, Illinois 60611.

Special Admission and Selection Criteria

Since this program requires a clinical placement, enrollments may be limited.

- Applicants must be graduates of accredited secondary school programs or those who hold GED equivalency certificates prior to selection. High school preparation should include one year of biology and chemistry. If high school chemistry and biology were not successfully completed, the preadmission requirements can also be met by completing CHM 107 and BIO 107.

- Applicants must complete and submit a WCCC Applicaton for Admission and Allied Health Programs Application to the Admissions Office by January 5 prior to the fall semester for which enrollment is anticipated. The forms must be accompanied by official transcripts from all secondary schools attended, GED programs and any other formal educational programs attended beyond high school.
- Applicants must take the computerized placement test (Accuplacer) and have successfully completed any required developmental courses prior to acceptance for the dental assisting program. All developmental course work including science course prerequisites must be completed with a grade of C prior to program enrollment. (C minus grade not accepted.)
- Applicants selected for admission must submit satisfactory results from pre-entrance physical, dental, hearing and eye examinations obtained at the candidate's expense. Specific information regarding the examinations will be provided to accepted applicants.
- Applicants must purchase student liability insurance.
- Please be aware that based on ongoing changes occurring in the dental profession, it may be necessary to modify courses listed in this catalog to meet changing practice competencies.

Students enrolled in the dental assisting program must be certified in CPR-BLS for Health Care Providers Annual Certification prior to the start of the second semester.

Competency Profile

This curriculum is designed to prepare students to:

- perform clinical dental assisting procedures with competence
- manage asepsis, infection and hazard control protocol consistent with published professional guidelines
- perform procedures specific to the work of the dental assistant, e.g. taking preliminary impressions, charting and data collection, etc.
- obtain and record accurate medical/dental histories and vital signs
- assist in the management of medical and dental emergencies
- provide oral health instruction and communicate effectively with patients and dental health team members
- expose, process and evaluate all types of oral radiography
- perform laboratory procedures associated with chairside assisting
- operate all dental equipment safely, effectively and efficiently
- perform basic office business procedures accurately
- successfully complete the Dental Assisting National Board Exam and applicable state credentialing
- assume responsibility for their own actions within the legal and ethical framework of dental assisting
- develop an attitude of responsibility for continued professional development, through encouragement to participate in professional organizations and continuing education opportunities

Dental Assisting, Diploma

(CONTINUED)

Division of Health Professions/Biology

PROGRAM REQUIREMENTS (TOTAL CREDITS — 42)

General Education

BIO 107	Human Biology	3
ENG 161	College Writing	3
PSY 160	General Psychology	3
SPC 156	Interpersonal Comm.	3
		12

Major

DAS 100	Intro/Dental Assisting	4
DAS 101	Oral Anatomy	2
DAS 102	Dental Mtrl. for Dent. Asst.	2
DAS 103	Dental Assisting Lab	4
DAS 104	Dental Science	4
DAS 105	Dent. Rad. for Dent. Asst.	3
DAS 106	CLN Dental Assisting I	5
DAS 108	CLN Dental Assisting II	4
DAS 109	Practice Management	2
		30

Other Required Courses

None Required

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester	
BIO 107	3
DAS 100	4
DAS 101	2
DAS 102	2
DAS 103	4
DAS 105	3
	18

Spring Semester	
DAS 104	4
DAS 106	5
ENG 161	3
PSY 160	3
	15

Summer Semester	
DAS 108	4
DAS 109	2
SPC 156	3
	9

Dental Hygiene, AAS

Division of Health Professions/Biology

The dental hygiene program offers the academic preparation and clinical training needed for a variety of dental hygiene careers. While most dental hygienists practice in private dental offices, others provide services in dental specialty practices, hospital and industrial clinics, correctional institutions, government health agencies, insurance companies and military services. With additional education through degree completion programs, dental hygienists also work in school systems, dental and dental hygiene education programs, dental sales and research.

The program includes clinical experience in the college campus facility. Patients will come to campus for prophylactic dental care; however, students may need to secure patients to meet clinical requirements.

The program is accredited by the Commission on Dental Accreditation of the American Dental Association. The commission is a specialized accrediting agency recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at 312-440-2719 or at 211 East Chicago Avenue, Chicago, Illinois 60611.

Special Admission and Selection Criteria

Admission to the dental hygiene program is highly competitive and enrollment is limited. Specific criteria for admission and selection are listed below.

- Applicants must be graduates of an accredited secondary school program, or high school seniors enrolled in an accredited secondary school program, or those who hold a GED equivalency certificate prior to selection.
- High school preparation should include one year each of biology, chemistry and algebra. If these courses were not taken in high school, BIO 107, CHM 107 and MTH 052 must be completed prior to testing for the dental hygiene program.
- College prerequisite coursework includes completion of CHM 264-Chemistry for the Health Sciences, BIO 171-Anatomy and Physiology I, and SOC 160-Applied Human Relations with a minimum grade of C. (C minus grade not accepted.)
- Applicants must complete and submit a WCCC Application for Admission and Allied Health Programs Application to the Admissions Office by January 5 prior to the fall semester in which enrollment is anticipated. The forms must be accompanied by official transcripts from all secondary schools attended, GED programs and any other formal education program attended beyond high school.
- Applicants must take the computerized placement test (Accuplacer) and have successfully completed any required developmental courses and/or high school course work with a minimum grade of C prior to taking the dental hygiene admission examination. (C minus grade not accepted.) Also, applicants who have completed credit courses must have a 2.5 GPA prior to taking the dental hygiene admission examination. Only courses necessary to meet the dental hygiene program requirements are considered when calculating the GPA. If the GPA is less than 2.5, one or more of these courses can be repeated in order to meet this requirement before testing.
- Those who apply must take a Dental Hygiene admissions test administered by WCCC. Applicants will be notified of testing dates. Candidates will be selected until available seats are filled.
- Applicants selected for admission must submit satisfactory results from pre-entrance physical, dental, hearing and eye examinations obtained at the candidate's expense. Specific information regarding the examination will be provided to students upon acceptance.
- Applicants must have successfully completed CPR-BLS for Health Care Providers Annual Certification prior to the start of the second semester of program enrollment.
- Applicants must purchase student liability insurance.
- Conviction of a felonious act may result in the Pennsylvania State Board of Dentistry denying licensure.
- Please be aware that based on ongoing changes in the dental hygiene profession, it may be necessary to modify courses listed in this catalog to meet changing practice competencies.

Competency Profile

This curriculum is designed to prepare students to:

- provide dental hygiene care for the child, adolescent, adult, geriatric and medically compromised patient with an awareness of cultural diversity within the community
- provide the dental hygiene process of care that includes assessment, planning, implementation and evaluation utilizing critical thinking and information management skills
- provide dental hygiene care for all types of classifications of periodontal disease, including patients who exhibit moderate to severe periodontal disease
- operate all dental equipment safely, effectively and efficiently
- expose, process and evaluate all types of oral radiography
- apply computation skills to provide safe exposure to oral radiation
- develop interpersonal and communication skills to effectively interact with diverse population groups

Dental Hygiene, AAS

(CONTINUED)

Division of Health Professions/Biology

- develop competency in assessing, planning, implementing and evaluating community based oral health programs, including health promotion and disease prevention activities with awareness of local community needs
- provide appropriate life-support measures for medical emergencies that may be encountered in dental hygiene practice
- apply ethical, legal and regulatory concepts to the provision and/or support of oral health care services
- manage self to adapt to the changing demands of the oral health care profession
- accept personal responsibility to prepare for professional development through lifelong learning
- utilize computer literacy to assess current scientific literature
- be competent in the evaluation of current scientific literature

PROGRAM PREREQUISITES

BIO 171	Anatomy & Physiology	4
CHM 264	Chem. for the Hlth. Sci.	4
SOC 160	Applied Human Rel.	3
		11

PROGRAM REQUIREMENTS (TOTAL CREDITS — 75)

General Education

CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 163	Business Commun.	3
SPC 156	Interpersonal Comm.	3
		12

Major

DAH 101	Intro to Dentistry	3
DAH 102	Dental Materials	2
DAH 103	Medical Emergencies	1
DAH 104	Head, Neck & Dental Anat.	4
DAH 105	Dental Radiology	3
DAH 106	Nutritional Biochemistry	2
DAH 109	Oral Pathology	2
DAH 111	Dental Hygiene Lecture	3
DAH 112	Dental Hygiene Lab	4
DAH 113	Histology/Embryology	2
DAH 114	Periodontics I	3
DAH 115	Clinical Dental Hyg. I	5
DAH 205	Periodontics II	1
DAH 206	Clinical Dental Hyg. II	6
DAH 207	Pharmacology	2
DAH 208	Clinical Dental Hyg. III	6
DAH 209	Community Dental Hlth.	3
		52

Other Required Courses

BIO 172	Anatomy & Physiology II	4
BIO 265	Microbiology	4
BUS 120	Math of Business	3
		11

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester	
BIO 172	4
DAH 101	3
DAH 102	2
DAH 104	4
ENG 161	3
	16

Spring Semester	
DAH 103	1
DAH 105	3
DAH 111	3
DAH 112	4
DAH 113	2
DAH 114	3
	16

Summer Semester	
CPT 150	3
DAH 106	2
DAH 109	2
DAH 115	5
	12

Fall Semester	
BIO 265	4
DAH 205	1
DAH 206	6
DAH 207	2
DAH 209	3
	16

Spring Semester	
BUS 120	3
DAH 208	6
ENG 163	3
SPC 156	3
	15

Dietetic Technician/Nutritional Services Management, AAS

Division of Technologies/Culinary Arts/Mathematics/Sciences

Dietetic Technician/Nutritional Services Management is one of the majors included in the college's hospitality program. Students enrolling in this program may seek employment in long-term care facilities, retirement centers, child nutrition and school lunch programs, nutrition programs for the elderly, hospitals, public health nutrition programs, and food service systems management firms as dietetic technicians, dietary managers or health care support workers. Students complete 60 credit hours of classroom/laboratory work along with a three credit capstone practicum in area facilities/related activities. Students are responsible for securing a practicum site which meets the program requirements. A physical examination is required for enrollment in the practicum course. Components required in this exam are contingent upon the practicum site and immunizations may be required. Graduates of the nutritional services option of dietetic technology are eligible to become members of the Dietary Managers Association and to write the certification examination to become a Certified Dietary Manager (CDM). The program also requires a general physical examination to begin the first laboratory course. Students are expected to be well groomed in compliance with standards of sanitation. Uniforms, decorative tips, a cutlery set and transportation to the practicum site are required. Special attire may be required at the practicum site as students are expected to conform to the dress code and regulation of the facility.

Competency Profile

This curriculum is designed to prepare students to function as an integral part of the nutrition care team and/or foodservice management team to:

- assist in the organization, development, implementation and evaluation of nutrition care and wellness plans
- obtain and record diet history, analyze clients nutritional care status, utilize communication skills to counsel clients and families from diverse backgrounds in medical nutrition therapy
- work as part of a production team to prepare quantity foods
- monitor and evaluate food quality and meal acceptance
- utilize interpersonal skills to supervise nutrition clerks and foodservice employees and to communicate with the other members of the health care team
- procure and receive supplies and equipment
- apply organizational and communication skills in supervising food production
- implement cost control procedures applying mathematical concepts
- enforce safety standards; instruct staff on sanitation
- develop and write job descriptions, specifications and work schedules for nutritional services employees
- design menus, analyze specialized meal patterns and create standardized recipes
- retrieve and manage nutrition information using the latest technology
- utilize computer technology to plan, organize and document food service and nutrition related information

PROGRAM REQUIREMENTS (TOTAL CREDITS – 63)

General Education

CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 163	Business Commun.	
or		3
ENG 164	Advanced Composition	
Humanities Elective		3
Mathematics Elective		3
Social Science Elective		3
		18

Major

BKP 141	Baking I	4
BKP 243	Healthy Cooking Trends	4
DTT 111	Intro to Dietetics	3
DTT 114	Topics in Nutr. & Health	3
FSM 105	Foods I	4
FSM 112	Quantity Foods	4
FSM 118	Sanitation	2
FSM 159	Nutrition	3
FSM 215	Food Purch. & Menu Mgmt.	3
FSM 235	Supervision & Training	3
		33

Other Required Courses

ACC 165	Acctg. for Managers	3
CUL 135	Speed Scratch Cooking	3
DTT 199	Nutritional Services Mgmt. Practicum	3
FSM 113	Customer Service	3
		12

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester	
CPT 150	3
DTT 111	3
FSM 105	4
FSM 118	2
FSM 159	3
	15

Spring Semester	
CUL 135	3
DTT 114	3
ENG 161	3
FSM 112	4
Math Elective	3
	16

Summer Semester	
BKP 141	4
	4

Fall Semester	
ACC 165	3
BKP 243	4
ENG 163 or 164	3
FSM 215	3
Social Science Elective	3
	16

***Spring Semester**	
DTT 199	3
FSM 113	3
FSM 235	3
Humanities Elective	3
	12

**It is recommended to take no more than 12 credits in this semester to allow time for the practicum experience.*

Dining Room Management, Certificate

Division of Technologies/Culinary Arts/Mathematics/Sciences

Dining room management is one of seven majors comprising the college's hospitality program. The certificate in dining room management is designed to provide entry and intermediate level skills for employment within resorts, restaurants, lodging and institutional facilities. Customer service and sanitation standards are both emphasized. Courses within this program also include information on beverage and wine service, techniques of service and marketing as it relates to this industry. Dining room attire required.

Competency Profile

This curriculum is designed to prepare students to:

- use interpersonal and personal skills to effectively work within the hospitality operation
- identify the characteristics of successful service techniques
- practice the technical service skills needed for dining room employees
- research and apply the basic laws of food and beverage service
- anticipate and satisfy diverse customer expectations
- collect and organize marketing information to reflect local, regional and international differences
- utilize the high-tech approach to maintain acceptable dining room systems of operation

Career Opportunities

Graduates of the dining room management certificate program may accept positions as: dining room manager, maitre'd, customer service specialist or training specialist.

PROGRAM REQUIREMENTS (TOTAL CREDITS — 18)

FSM 103	Intro to Hospitality	3
FSM 113	Customer Service	3
FSM 117	Wait Staff Training	1
FSM 118	Sanitation	2
FSM 119	Bever./Dining Rm. Mgmt.	1
FSM 120	Wine Apprecia. & Ser.	1
FSM 127	Service Techniques	1
FSM 218	Hospitality Marketing	3
FSM 219	Hospitality Internship	3
		18

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
FSM 103	3	FSM 119	1
FSM 113	3	FSM 120	1
FSM 117	1	FSM 127	1
FSM 118	2	FSM 218	3
	9	FSM 219	3
			9

Drafting and Design Technology, AAS

COMPUTER AIDED DRAFTING & DESIGN (CADD)/COMPUTER AIDED MANUFACTURING (CAM)

Division of Technologies/Culinary Arts/Mathematics/Sciences

The associate degree program provides the student drafter with computer aided drafting and design and computer aided manufacturing hands-on CADD/CAM applications using a micro stand-alone terminal workstation.

Career Opportunities

Students completing this program will be qualified to enter the work world as a first level CADD/CAM operator. Significant hands-on experience is essential for CADD/CAM operators to eventually qualify for positions as designers, design technicians or design specialists at a computer terminal.

The following personnel will benefit from a CADD/CAM education: mechanical designers, project engineers, specialists, supervisors, detailers, casual users, vocational trainers and support personnel.

Competency Profile

This curriculum is designed to prepare students to:

- develop the ability to execute quantitative design of machine products
- identify the basic components of a CADD/CAM system (hardware and software)
- perform an infinite number of 2-D machine tool path computations necessary to produce and advance drafting and design portfolio
- implement the basic commands necessary to apply the operational skills needed to effect a 2-D CADD/CAM system
- apply concepts from physics, engineering, mechanics, mathematics, and drafting and apply them to the synthesis of durable mechanical machines and products
- communicate effectively and appropriately record and report information significant to the job

PROGRAM REQUIREMENTS (TOTAL CREDITS — 62)

General Education		
DFT 258	Auto CAD	4
ENG 161	College Writing	3
ENG 162	Technical Commun.	3
MTH 108	Math for the Tech. I	4
PHY 107	Applied Physics	4
Social Science Elective		3
		21

Major		
DFT 105	Technical Drafting I	4
DFT 106	Technical Drafting II	4
DFT 112	Intro to Design Mat. & Pro.	3
DFT 259	Advanced AutoCAD	4
DFT 262	Piping, Structural Detail. & Elec. Drafting	4
DFT 266	Inventor	4
		23

Other Required Courses		
CNC 100	Intro to CNC	3
CNC 200	CNC I	4
CNC 201	CNC II	4
EGR 220	Statics/Strength of Mat.	3
MTH 109	Math for the Tech. II	4
		18

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		Spring Semester		Fall Semester		Spring Semester	
DFT 105	4	CNC 100	3	CNC 200	4	CNC 201	4
DFT 112	3	DFT 106	4	DFT 259	4	DFT 262	4
ENG 161	3	DFT 258	4	EGR 220	3	DFT 266	4
MTH 108	4	MTH 109	4	PHY 107	4	ENG 162	3
	14		**15**	Social Science Elective	3		**15**
					18		

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Central Westmoreland Career and Technology Center, and Western Area Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Drafting and Design Technology, AAS

MECHANICAL DRAFTING AND DESIGN OPTION

Division of Technologies/Culinary Arts/Mathematics/Sciences

Students in the mechanical option of the drafting and design technology program learn to translate the ideas, rough sketches, specifications and calculations of engineers into working drawings for production and assembly.

Successful completion of this program of study leads to the associate in applied science degree.

Career Opportunities

Recent graduates of this program have accepted jobs with the following titles: draftsman, drafting technician, drafting technician trainee and CADD first-level entry position.

Competency Profile

This curriculum is designed to prepare students to:

- analyze and translate problems by presenting them visually
- develop the ability to execute quantitative design of machines and products
- identify the basic components of a CADD system
- perform an infinite number of 2-D design math computations necessary to produce drafting design
- implement the basic commands necessary to apply the operational skills to effect a 2-D CADD system
- apply concepts from physics, engineering, mechanics, mathematics, and drafting and apply them to the synthesis of durable mechanical machines and products
- communicate effectively and appropriately record and report information significant to the job
- perform an infinite number of two-dimensional drawings using a stand-alone mini-computer

PROGRAM REQUIREMENTS (TOTAL CREDITS — 60)

General Education

DFT 258	AutoCAD	4
ENG 161	College Writing	3
ENG 162	Technical Commun.	3
MTH 108	Math for the Tech. I	4
PHY 107	Applied Physics	4
Social Science Elective		3
		21

Major

DFT 105	Technical Drafting I	4
DFT 106	Technical Drafting II	4
DFT 112	Intro to Design, Mat. & Pro	3
DFT 207	Tool Design	3
DFT 208	Product Design	3
DFT 259	Advanced AutoCAD	4
DFT 262	Piping Struct. & Electro. Mech.	4
DFT 266	Inventor	4
		29

Other Required Courses

EGR 110	Descriptive Geometry	3
EGR 220	Statics/Strength of Mat.	3
MTH 109	Math for the Tech. II	4
		10

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
DFT 105	4	DFT 106	4	DFT 207	3	DFT 208	3
DFT 112	3	DFT 258	4	DFT 259	4	DFT 262	4
ENG 161	3	ENG 162	3	EGR 110	3	DFT 266	4
MTH 108	4	MTH 109	4	EGR 220	3	Social Science Elective	3
	14		**15**	PHY 107	4		**14**
					17		

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Central Westmoreland Career and Technology Center, and Western ARea Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Early Childhood Education, AAS

Division of Public Service/Humanities/Social Sciences

The early childhood education program reflects the standards established by the National Association of Education for Young Children for students in the field of early childhood education. The program provides a solid foundation in the who, what, and why of effective early childhood education. Under supervision, students complete two practicum experiences in which they apply theoretical knowledge to actual early childhood education settings.

Career Opportunities

Graduates of the early childhood education program have accepted positions with the following titles: preschool teacher, group supervisor, assistant group supervisor, center supervisor and homevisitor. Other graduates have started their own child care centers, family day care home or group day care home.

Competency Profile

This curriculum is designed to prepare students to:

- develop, support and value relationships with families and communities
- demonstrate the use of systematic observations and other effective assessments in partnership with families and other professionals to positively influence children's development
- integrate their understanding of children and developmentally effective approaches to teaching to design, implement, and evaluate experiences that promote positive development and learning in all young children
- identify and use ethical guidelines and other professional standards related to early childhood practices
- use their understanding of young children's characteristics and needs, and of multiple interacting influences on children's development and learning, to create environments that are healthy, respectful, supportive, and challenging for all children
- communicate effectively and respectfully with children, parents, and other professionals working with young children
- use technological resources to obtain, organize and manage information related to the field of early childhood education

Students enrolled in the associate degree program must be certified in first aid/CPR prior to graduation.

PROGRAM REQUIREMENTS (TOTAL CREDITS — 62)

General Education

CPT 150	Microcomp. Concepts	3
ENG 161	College Writing	3
ENG 162 or ENG 163	Technical Commun. or Business Commun.	3
ENG 164	Advanced Composition	
PSY 160	General Psychology	3
SPC 155	Effective Speech	3
Mathematics Elective		3
		18

Major

ECE 179	Infant & Toddler Dev.	3
ECE 180	Child Growth & Dev.	3
ECE 183	Creative Exp./Comm. Ch.	3
ECE 184	Child Care Practicum I	4
ECE 185	Intro Early Ch. Curr.	3
ECE 186	Cult./Soc. Dev. of Ch.	3
ECE 187	Child Care Management	3
ECE 188	Intro to Except. Dev.	3
ECE 190	Child Hlth./Sfty./Nut.	3
ECE 193	Children's Literature	3
ECE 194	Ed. Yg. Child./Spec. Needs	3
ECE 284	Child Care Practicum II	4
		38

Other Required Courses

Restricted Electives*		6
		6

***Restricted Electives**

ART 155	Intro to Art
ASL 101	American Sign Language I
CRJ 255	Juvenile Delinquency
EDU 155	Found. of Education
HPE 165	Intro Health/Phys. Ed.
HMS 155	Intro to Human Services
MUS 155	Intro to Music
PHL 165	Social Ethics
PSY 161	Human Growth & Dev.
PSY 165	Educational Psychology
PSY 270	Abnormal Psychology
SOC 155	Principles of Sociology
SOC 161	Marriage & Family

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		Spring Semester		Fall Semester		Spring Semester	
ECE 179	3	ECE 180	3	ECE 184	4	ECE 187	3
ECE 185	3	ECE 183	3	ECE 186	3	ECE 284	4
ECE 190	3	ECE 188	3	ECE 193	3	Mathematics Elective	3
ENG 161	3	ENG 162, 163, or 164	3	ECE 194	3	Restricted Elective*	6
PSY 160	3	SPC 155	3	CPT 150	3		**16**
	15		**15**		**16**		

Early Childhood Education, Diploma

Division of Public Service/Humanities/Social Sciences

This curriculum focuses on the theories of child growth and development of children from birth to eight years, developmentally appropriate practices addressing health, safety, nutrition, and inclusive curriculum, and a practicum experience which provides students the opportunity to apply their knowledge to an actual early childhood setting. Credits earned in this program can be applied toward the requirements of the associate degree.

Competency Profile

This curriculum is designed to prepare students to:

- develop and implement developmentally appropriate curriculum for infants, toddlers, and preschool children
- demonstrate the use of authentic assessment to positively influence children's development
- integrate their understanding of all children by designing and evaluating healthy, safe and responsive learning environments
- apply their understanding of social and cultural variables that may have an impact on a young child's life
- use effective communication skills with parents, children and other professionals
- demonstrate knowledge of the child growth and development within the framework of an early childhood setting

Students enrolled in this diploma program must be certified in CPR and first aid prior to graduation.

PROGRAM REQUIREMENTS (TOTAL CREDITS — 31)

General Education

ENG 161	College Writing	3
		3

Major

ECE 179	Infant & Toddler Dev.	3
ECE 180	Child Growth & Dev.	3
ECE 183	Creative Exp./Comm. Ch.	3
ECE 184	Child Care Practicum I	4
ECE 185	Intro Early Ch. Curr.	3
ECE 186	Cult./Soc. Dev. of Ch.	3
ECE 188	Intro to Except. Dev.	3
ECE 190	Child Hlth./Sfty./Nut.	3
		25

Other Required Courses

Restricted Elective*	3
	3

*Restricted Electives listed for Early Childhood Education, AAS, page 90

RECOMMENDED SEQUENCE

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**	
ECE 179	3	ECE 180	3	ECE 184	4
ECE 185	3	ECE 183	3		**4**
ECE 186	3	ECE 188	3		
ECE 190	3	Restricted Elective	3		
ENG 161	3		**12**		
	15				

Early Childhood Education, Certificate

Division of Public Service/Humanities/Social Sciences

Credits earned in this program can be applied toward the requirements of the diploma or associate degree.

Competency Profile

This curriculum is designed to prepare students to:

- develop an understanding of child growth and development from birth to eight years
- demonstrate an understanding of developmentally appropriate curriculum for young children
- describe the components of child health, safety and nutrition in early childhood education

Students enrolled in ths diploma progrtam must be certified in CPR and first aid prior to graduation.

PROGRAM REQUIREMENTS (TOTAL CREDITS — 15)

	Major	
ECE 179	Infant & Toddler Dev.	3
ECE 180	Child Growth & Dev.	3
ECE 183	Creative Exp./Comm. Ch.	3
ECE 185	Intro Early Ch. Curr.	3
ECE 190	Child Health/Saf./Nut.	3
		15

Early Childhood Education, Credential

DIRECTOR CERTIFICATE

Division of Public Service/Humanities/Social Sciences

The nine-credit credential program is designed to prepare personnel to increase their knowledge and understanding of the role of the Early Childhood Director, as defined in Section 3270.34, Chapter 55, Commonwealth of Pennsylvania Child Day Care Center Regulations, and to meet the requirements for Staff Education, STAR #3 in the Keystone STARS Quality Improvement Initiative Performance Standards.

In order to enroll in the Pennsylvania Early Childhood Core Credential program, students must: 1) have an associate degree in early childhood education, child development, special education, elementary education or social science field; 2) have an associate degree in any other field, including 30 hours of early childhood education, child development, special education, elementary education or social science field; 3) have a bachelor's degree in early childhood education, child development, special education, elementary education or social science field; or 4) have a bachelor's degree in any other field, including 30 credit hours in early childhood education, child development, special education, elementary education or social science field.

Competency Profile

This curriculum is designed to prepare directors of early childhood programs to:

- apply knowledge of ages and stages of development in program planning
- create learning environments and curriculums that reflect children's ages, abilities, interests and diverse home culture
- evaluate and select assessment tools to be used with children, staff, and center
- demonstrate effective communication skills with children, parents, staff and community
- demonstrate professional behavior and interpersonal skills while adhering to early childhood professional code of ethics
- evaluate and ensure that health, safety, and nutritional practices are compliant with all standards
- analyze the organization, administration, management, budget and the daily operations of an early childhood facility

For a candidate to be awarded a director credential, the candidate's choice of three three-credit courses must be pre-approved by the the granting institution faculty advisor based on the candidates prior academic record and prior experience. Successful completion of each of the three courses means a grade of "C" or better.

PROGRAM RECOMMENDATIONS (Minimum credits – 9)

ECE 179	Infant & Toddler Dev.	3	ECE 190	Child Hlth./Sfty./Nut.	3	CPT 151	Advanced Office Appl.	3
ECE 180	Child Growth & Dev.	3	ECE 194	Ed. Yg. Child./Spec. Needs	3	ENG 163	Business Commun.	3
ECE 183	Creative Exp./Comm. Ch.	3	BUS 120	Math of Business	3	EDU 155	Found. of Education	3
ECE 185	Intro Early Ch. Curr.	3	BUS 160	Intro to Business	3	HMS 155	Intro to Human Serv.	3
ECE 186	Cult./Soc. Dev. of Ch.	3	BUS 241	Human Resource Mgmt.	3	PSY 165	Educat. Psychology	3
ECE 187	Child Care Mgmt.	3	BUS 258	Supervisory Mgmt.	3	SOC 161	Marriage & Family	3
ECE 188	Intro to Except. Dev.	3	CPT 150	Microcomputer Concepts	3			

Electronic Commerce, AAS

Division of Computer Technology/Business

Students in the technical support option will learn how to install, configure, and maintain the computer systems for electronic commerce. Emphasis is placed upon programming languages and technologies that will drive business practices in the 21st century. Course work concentrates on systems widely used throughout the global economy.

Career Opportunities

Graduates of this program are prepared to provide technical expertise and support in an integrated electronic commerce environment.

Competency Profile

This curriculum is designed to prepare students to:

- blend Web design, computer technology, and business commerce expertise for delivery over the Internet
- provide a framework for building collaborative service environments for online commerce
- specify and evaluate technical solutions to e-commerce problems
- develop, test, implement, and maintain computer programs for an e-business function
- provide networking and software expertise to other members of the organization
- identify the resources necessary to maintain technical skills as electronic commerce continues to evolve

PROGRAM REQUIREMENTS (TOTAL CREDITS – 63)

General Education

CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 162	Technical Communn	
or		
ENG 163	Business Commun.	3
or		
ENG 164	Advanced Composition	
SPC 155	Effective Speech	
or		3
SPC 156	Interpersonal Comm.	
Mathematics Elective		3
Social Science Elective		3
		18

Major & Related Courses

BUS 265	Electronic Commerce	3
CPT 145	Intro to Computer Tech.	3
CPT 163	Java Programming I	3
CPT 181	Intro to Telecomm.	3
CPT 196	Access for Windows	3
CPT 203	HTML and JavaScript	3
CPT 206	Server Programming	3
CPT 207	Beginning XML	3
CPT 235	Database Mgmnt. Systems	3
CPT 238	Wide Area Networking	3
CPT 271	Oracle SQL I	3
CPT 273	ColdFusion Studio	3
CPT 277	E-Commerce Technology	3
MKT 253	Global Marketing	3
WEB 150	Web Design	3
		45

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester	
BUS 265	3
CPT 145	3
CPT 150	3
ENG 161	3
Mathematics Elective	3
	15

Spring Semester	
CPT 181	3
CPT 196	3
CPT 203	3
ENG 162, 163 or 164	3
MKT 253	3
WEB 150	3
	18

Fall Semester	
CPT 163	3
CPT 206	3
CPT 235	3
CPT 271	3
Social Science Elective	3
	15

Spring Semester	
CPT 207	3
CPT 238	3
CPT 273	3
CPT 277	3
SPC 155 or SPC 156	3
	15

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Eastern Westmoreland Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Electronics Engineering Technology, AAS

GENERAL OPTION

Division of Technologies/Culinary Arts/Mathematics/Sciences

Electronics engineering technology is based on applied physics and mathematics.

Successful completion of this program of study leads to the associate in applied science degree.

Career Opportunities

Recent graduates of the electronics engineering technology program have accepted jobs with the following titles: electrical mechanic, electronics technician, audio technician and tester of electronic equipment.

Competency Profile

This curriculum is designed to prepare students to:

- design and construct basic circuitry based on an in-depth knowledge of electronic circuits and devices
- apply mathematics through elementary integral and differential calculus to the development of ideas based on scientific and engineering principles
- install, maintain and repair electronic circuits and systems using extensive knowledge of laboratory test equipment and procedures
- apply understanding of electronic devices, circuits, systems, and procedures to practical situations
- adapt and extend knowledge of electronics to new devices, circuits and systems
- communicate technological ideas and information with others verbally, graphically and in writing
- accept the role and responsibility of citizenship both within the profession and in society

PROGRAM REQUIREMENTS (TOTAL CREDITS — 60/61)

General Education

DFT 258	AutoCAD	4
ENG 161	College Writing	3
ENG 162	Technical Commun.	
or		
ENG 163	Business Commun.	3
or		
ENG 164	Advanced Composition	
MTH 108	Math for the Tech. I	4
PHY 155	College Physics I	4
Social Science Elective		3
		21

Major

ELC 102	Electronic Devices	4
ELC 105	Elec. Instru. & Measure.	2
ELC 106	Circuit Analysis I	3
ELC 107	Circuit Analysis II	3
ELC 114	Digital Techniques	4
ELC 202	Linear Electronics	4
ELC 206	Microprocessors	4
Restricted Electives*		7/8
		31/32

Other Required Courses

MTH 109	Math for the Tech. II	4
PHY 156	College Physics II	4
		8

***Restricted Electives**

Courses with an ELC prefix

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
DFT 258	4	ELC 102	4	ELC 202	4	PHY 156	4
ELC 105	2	ELC 107	3	ELC 206	4	Restricted Elective	4
ELC 106	3	ELC 114	4	ENG 162, 163 or 164	3	Restricted Elective	3/4
ENG 161	3	MTH 109	4	PHY 155	4	Social Science Elective	3
MTH 108	4		**15**		**15**		**14/15**
	16						

Tech Prep Option

Tech Prep articulation agreements exist between WCCC, Central Westmoreland Career and Technology Center, Eastern Westmoreland Career and Technology Center, and Northern Westmoreland Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Engineering Technology, AAS

Division of Technologies/Culinary Arts/Mathematics/Sciences

The engineering technology program is designed to provide students with the skills and knowledge they need to function as assistants to engineers. Graduates will be prepared to practice as engineering technicians.

Successful completion of this program of study leads to the associate in applied science degree.

Competency Profile

This curriculum is designed to prepare students to:

- demonstrate basic quantitative skills through the study of mathematics and the application of mathematics to the physical world through the study of physics
- expand basic skills to encompass mechanical skills, such as drafting, spatial relations, and force and motion analysis
- demonstrate product design capability
- develop skills in communications and business methods
- demonstrate computer literacy
- independently read and understand technical documents
- communicate effectively, and appropriately record and report information significant to the job

PROGRAM REQUIREMENTS (TOTAL CREDITS — 62)

General Education

ENG 161	College Writing	3
ENG 162	Technical Commun.	
or		
ENG 163	Business Commun.	3
or		
ENG 164	Advanced Comoposition	
MTH 108	Math for the Tech. I	4
PHY 155	College Physics	4
Computer Science Elective		3
Social Science Elective		3
		20

Major

EGR 104	Engineering Materials	3
EGR 105	Manufacturing Proce.	3
EGR 110	Descriptive Geometry	3
EGR 210	Quality Control	3
EGR 220	Statics/Strength of Mat.	3
EGR 227	Kinematics	3
		18

Other Required Courses

DFT 105	Technical Drafting I	4
DFT 106	Technical Drafting II	4
DFT 258	AutoCAD	4
MTH 109	Math for the Tech. II	4
MTH 172	Calculus I	4
PHY 156	College Physics II	4
		24

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
DFT 105	4	DFT 106	4	EGR 105	3	DFT 258	4
ENG 161	3	EGR 104	3	EGR 110	3	EGR 210	3
MTH 108	4	ENG 162, 163, or 164	3	EGR 220	3	EGR 227	3
Computer Science Elective	3	MTH 109	4	MTH 172	4		**10**
Social Science Elective	3	PHY 155	4	PHY 156	4		
	17		**18**		**17**		

Fire Science Technology, AAS

MUNICIPAL FIRE SERVICE OPTION

Division of Public Service/Humanities/Social Sciences

Graduates of the municipal fire service option of the fire science technology program are prepared to function as leaders in the fire science team.

Successful completion of this program of study leads to the associate in applied science degree.

Career Opportunities

Recent graduates of the fire science program have accepted jobs with the following titles: arson investigator, housing inspector, 911 dispatcher and firefighter.

Competency Profile

This curriculum is designed to prepare students to:

- employ scientific processes, methods and computer-based research and common business computer software to solve firefighting problems
- deploy appropriate resources for the extinguishment of fires and non-emergency departmental functions by analyzing existing policies and procedures
- function as part of a management team to evaluate fire prevention and inspection policies based on new technologies and conducting organizational studies
- communicate effectively by preparing departmental reports on: incidents, budgets, training, personnel and equipment, standard operating procedures, mutual aid agreements and other operational issues
- collect and analyze information to specify mobile and portable fire suppression equipment
- analyze existing building code compliance and fire hazards and issue reports to comply with community, state and national regulations

* employ effective decision making while functioning within the local, state and national legal system to maintain legal immunity

- maintain personal, social and mental well being while functioning within a dynamic, yet hazardous occupational setting

PROGRAM REQUIREMENTS (TOTAL CREDITS — 60)

General Education

CHM 105	Technical Chemistry	4
ENG 161	College Writing	3
ENG 162	Technical Commun.	
or		3
ENG 163	Business Commun.	
MTH 108	Math. for the Tech. I	4
SOC 160	Applied Human Rel.	3
Computer Technology Elective		3
		20

Major

FST 101	Intro to Fire Science	3
FST 103	Fire Service Admin.	3
FST 104	Fire Service Hydraulics	3
FST 105	Public Fire Education	3
FST 109	Bldg. Codes/Standars	3
FST 220	Firefighting Tactics I	3
FST 222	Legal Asp./PA Fire Serv.	3
Fire Science Electives		9
		30

Other Required Courses

PHY 107	Applied Physics	4
Mathematics Elective		3
Social Science Elective		3
		10

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester	
ENG 161	3
FST 101	3
FST 105	3
MTH 108	4
Computer Tech. Elective	3
	16

Spring Semester	
CHM 105	4
ENG 162 or ENG 163	3
FST 104	3
Fire Science Elective	3
Mathematics Elective	3
	16

Fall Semester	
FST 103	3
FST 109	3
FST 220	3
Fire Science Elective	3
Social Science Elective	3
	15

Spring Semester	
FST 222	3
PHY 107	4
SOC 160	3
Fire Science Elective	3
	13

Fire Science Technology, Diploma

Division of Public Service/Humanities/Social Sciences

Competency Profile

This curriculum is designed to prepare students to:

- deliver oral presentations on fire behavior, control and prevention methods, using prepared materials, when assigned to do so
- function in a management support role in a community-based fire service organization as part of a suppression or prevention task force
- analyze fire ground water movement problems and operate pressure-producing pumps to effectively supply a variety of fire control streams
- participate as part of an organizational team to deploy human and capital resources to achieve the organization's mission, goals, and objectives
- inspect and issue written reports on the proper operation of fire detection and suppression systems
- evaluate current and potential fire and emergency situations and issue verbal, written and radio transmission reports that effectively manages personnel to mitigate the situation

PROGRAM REQUIREMENTS (TOTAL CREDITS — 31)

General Education		
ENG 161	College Writing	3
MTH 108	Math for the Tech. I	4
SOC 160	Applied Human Rel.	3
		10

Major		
FST 101	Intro to Fire Science	3
FST 103	Fire Service Admin.	3
FST 104	Fire Service Hydraulics	3
FST 105	Public Fire Education	3
FST 107	Fire Protection Suppres.	3
FST 220	Firefighting Tactics I	3
Fire Science Elective		3
		21

Other Required Courses

None Required

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester	
ENG 161	3
FST 101	3
FST 103	3
FST 105	3
MTH 108	4
	16

Spring Semester	
FST 104	3
FST 107	3
FST 220	3
SOC 160	3
Fire Science Elective	3
	15

Fire Science Technology, Certificate

Division of Public Service/Humanities/Social Sciences

Competency Profile

This curriculum is designed to prepare students to:

- identify past and present building hazards that have caused catastrophic loss of life events and make oral or written recommendations to prevent future catastrophes
- complete written forms to document operating status of fire detection and suppression systems
- assist with the delivery of fire behavior and fire education programs by communicating effectively using prepared materials
- identify basic fire prevention inspection deficiencies for existing buildings and compile written reports using prepared forms
- collect organizational budget, incident and personnel data using existing forms and compile written summary reports
- interact with other fire science team members and the local community by using effective interpersonal and workplace life skills

PROGRAM REQUIREMENTS (TOTAL CREDITS — 19)

ENG 161	College Writing	3
FST 101	Intro to Fire Science	3
FST 103	Fire Service Admin.	3
FST 105	Public Fire Education	3
FST 107	Fire Protection Sup.	3
MTH 108	Math for the Tech. I	4
		19

Graphic and Web Design

These specialized visual communication programs provide education in the interaction of words and images to inform, educate and persuade. The objective of these programs is to enable students to become innovative, intelligent and responsible designers for creative and productive careers. These include areas such as publication design, exhibition design, multimedia design, instructional material design, package design, interactive design, Web communications, and specialty and environmental graphics.

Graphic and Web Design Program

The Graphic and Web Design program is both conceptual and skill-based, emphasizing interdisciplinary thinking and theory, and reflects the constant change of the design, animation, print, and Web industries. Coursework provides extensive hands-on experience with Adobe, Apple and Autodesk software and is key to achieving goals, strategies, and skills for commercial printing and prepress shops, graphic design and production firms, specialty graphics imaging, and Web design and production.

The computer labs at the WCCC Youngwood Campus are equipped to handle print, Web and motion production within the Macintosh and Windows environments. Four teaching computer classrooms are equipped with the latest Macintosh hardware and software.

Associate in Applied Science Degree

The Graphic and Web Design associate in applied science degree program is offered as several options: Graphic Design, Web Design and Web Publishing. These programs combine fluency in visual design, academic, computer-based and job-related skills that prepare graduates for entry-level employment in today's print, multimedia, animation and Web job market.

Internships provide students with the opportunity to work in a variety of off-site environments, including design firms, print and web publishers, commercial printers, technology companies and nonprofit organizations. Through internships and professional workshops, students gain work experience, make contacts and refine their portfolios.

Upon completion, graduates will have a solid understanding of the latest digital technologies and techniques, and the creative and technical processes of graphic and Web design. The utilization of new technologies combined with individual creative interpretation provides the key set of skills demanded by business and industry for current and future job opportunities.

Graphic and Web Design Certificate

WCCC offers various certificates to individuals active or interested in 2D Animation, 3D Art/Animation, Graphic Design, Web Design or Web Development. These certificates provide students with the technical knowledge, skills and hands-on experience to increase their value to their organization, earn credentials for proof of concentrated study, to explore a career or change careers, update and strengthen current knowledge and skills, or to pursue an area of personal interest or hobby.

Complete descriptions of these programs appear on pages 100-106.

Graphic and Web Design, AAS

GRAPHIC DESIGN OPTION

Division of Computer Technology/Business

The graphic deisgn option provides basic and advanced training to graphic applications for 3D, graphic design, and Web design that can help prepare students to become creative and technically proficient graphic artists/designers in the fields of commercial art, graphic design, commercial printing and Web design. The hands-on curriculum incorporates some of the industry's most widely used software applications from Adobe®and Audodesk® through timed, project-based instruction. This degree program integrates theory, hands-on experience and team-oriented learning to help students develop the skills, knowledge and techniques they need for their specific educational goals and career needs.

Career Opportunities

Graduates of this program may find employment in: advertising/graphic design firms, communications/advertising departments, newspapers, magazine or book publishers, commercial printing companies, public relations agencies, the film and television industries, Web design, and multimedia production companies. Some students are also successfully self-employed as graphic or Web designers.

Competency Profile

The curriculum is designed to prepare students to:

- plan and create effective, cohesive design solutions using a variety of media
- use current software and technology to create digital compositions while applying color theory and graphic design principles
- apply project management and teamwork skills to address digital design industry issues
- incorporate typography, graphic design and illustration techniques in the production of graphic images and publications
- plan and design print and interactive projects that demonstrate organizational methodologies
- collaborate as a member of a creative team during the research, design and preparation of electronic files for commercial printing
- demonstrate academic knowledge required of all graduates including competency in critical thinking, writing, information literacy, oral communication and quantitative reasoning

PROGRAM REQUIREMENTS (TOTAL CREDITS — 62)

General Education

ART 160	2-D Design	
or		
ART 162	Drawing I	3
or		
ART 164	Color Theory	
ENG 161	College Writing	3
GCT 160	Photoshop - Basic	3
English Elective		3
Mathematics Elective		3
Social Science Elective		3
		18

Major

GCT 100	Macintosh OS	1
GCT 102	Acrobat Essentials	1
GCT 115	Digital Design - 2D	3
GCT 130	InDesign - Basic	3
GCT 150	Illustrator - Basic	3
GCT 215	Digital Design - 3D	3
GCT 231	InDesign - Advanced	3
GCT 253	Illustrator - Advanced	3
GCT 261	Photoshop - Advanced	3
GCT 285	Photoshop - Prepress	3
GCT 287	Digital Workflow	3
		29

Other Required Courses

GCT 170	Maya - Basic	3
GCT 173	Maya - Modeling	3
WEB 130	GoLive - Basic	
or		3
WEB 140	Dreamweaver - Basic	
WEB 162	Fireworks	
or		3
WEB 163	Photoshop - Web	
WEB 230	GoLive - Advanced	
or		
WEB 239	Dreamweaver - Adv.	3
or		
GCT 199	Graphic Internship	
		15

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester	
ART 160, 162 or 164	3
ENG 161	3
GCT 100	1
GCT 115	3
GCT 150	3
GCT 160	3
	16

Spring Semester	
ENG 162, 163 or 164	3
GCT 130	3
GCT 253	3
GCT 261	3
WEB 130 or WEB 140	3
	15

Fall Semester	
GCT 102	1
GCT 170	3
GCT 215	3
GCT 231	3
GCT 285	3
Mathematics Elective	3
	16

Spring Semester	
GCT 173	3
GCT 199 or	
WEB 230 or 239	3
GCT 287	3
WEB 163	3
Mathematics Elective	3
	15

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Eastern Westmoreland Career and Technology Center, and Mon Valley Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Graphic and Web Design, AAS

WEB DESIGN OPTION

Division of Computer Technology/Business

The Web design option explores the design and production environment of creating engaging content and user experiences for print, Web and mobile publishing. Students learn the basic and advanced techniques of graphic and Web design, site planning and management, typography and color theory, storyboarding and animation techniques and audio/video Web media production. Students develop their skills with extensive hands-on experience using design, animation, video and audio tools from Adobe® for creating stunning visual effects as Flash content for integration for Web pages and mobile devices. Key areas addressed in this degree program include the creation of cutting-edge Flash animations and graphic effects, integrating audio and video into Web media, developing basic online game design, building various Web-page components, and designing interactive interfaces and content for Web pages, PDAs, mobile phones and next generation devices.

Career Opportunities

Graduates will have acquired the skills necessary for entry-level positions such as Flash designer, Web designer, digital artist, Interactive designer, Internet marketing designer, digital media producer or project coordinator.

Competency Profile

The curriculum is designed to prepare students to:

- plan and create effective, cohesive design solutions using a variety of Web media
- plan and design interactive projects that demonstrate navigational and organizational methodologies
- create documents for media production such as proposals, treatments, scripts, storyboards, budgets, shot lists and production schedules
- apply project management and teamwork skills to address digital media issues
- use editing software to perform tasks such as adding titles, graphics and special effects
- evaluate the technical proficiency of media productions
- demonstrate academic knowledge required of all graduates including competency in: critical thinking, writing, information literacy, oral communication and quantitative reasoning
- identify career and transfer options and assume a professional role in the workplace

PROGRAM REQUIREMENTS (TOTAL CREDITS — 62)

General Education

ENG 161	College Writing	3
ENG 162	Technical Commun.	
or		
ENG 163	Business Commun.	3
or		
ENG 164	Advanced Composition	
SPC 155	Effective Speech	
or		3
SPC 156	Interpersonal Commun.	
WEB 150	Web Design	3
Mathematics Elective		3
Social Science Elective		3
		18

Major

WEB 120	Flash - Basic	3
WEB 125	Flash - Actionscript	3
WEB 180	Flash - Animation I	3
WEB 200	Web Technologies	3
WEB 220	Flash - Web Media	3
WEB 280	Flash - Animation II	3
WEB 295	Web Architecture	
or		3
WEB 199	Web Internship	
		21

Other Required Courses

GCT 100	Macintosh OS	1
GCT 115	Digital Design-2D	3
GCT 150	Illustrator - Basic	3
GCT 160	Photoshop - Basic	3
MED 103	Podcasting Basics	1
MED 105	Multimedia - Basic	3
Restricted Electives		9
		23

Restricted Electives *– Students need to select one option from below*

Media Option

MED 159	Basic Video Production
MED 180	Digital Audio
MED 290	After Effects

GoLIve Option

WEB 130	GoLive - Basic
WEB 163	Photoshop - Web
WEB 230	GoLive - Advanced

Dreamweaver Option

WEB 140	Dreamweaver - Basic
WEB 162	Fireworks
WEB 239	Dreamweaver - Advanced

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester	
ENG 161	3
GCT 100	1
MED 105	3
WEB 120	3
WEB 150	3
Social Science Elective	3
	16

Spring Semester	
ENG 162, 163 or 164	3
GCT 115	3
MED 159 or WEB 130 or WEB 140	3
MED 180 or WEB 163 or WEB 162	3
WEB 180	3
	15

Fall Semester	
GCT 150	3
GCT 160	3
MED 103	1
MED 290 or WEB 230 or WEB 240	3
WEB 125	3
WEB 200	3
	16

Spring Semester	
SPC 155 or 156	3
WEB 220	3
WEB 280	3
WEB 295 or 199	3
Mathematics Elective	3
	15

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Eastern Westmoreland Career and Technology Center, and Mon Valley Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Graphic and Web Design, AAS

WEB PUBLISHING OPTION

Division of Computer Technology/Business

The Web publishing option is designed to provide students with the knowledge needed to design and implement effective, dynamic Web sites. Students build static and dynamic Web sites utilizing the most current versions of industry standard applications and the scripting and programming languages that drive the Web. As sites take on an ever-more-important position in the operation of business, from commerce to communication, Web publishers play an increasingly significant role in a company's success.

Career Opportunities

Graduates have a range of expertise and interests that determine their selection of occupation within the fields of Web design, Web content management, Web master, Flash development, technical support, corporate communications and Web site production.

Competency Profile

The curriculum is designed to prepare students to:

- demonstrate knowledge of design principles in the creation of images and Web pages for the Internet
- demonstrate proficiency in the design, development and administration of database systems to support workplace needs
- apply animation and digital imaging technologies in the development of Web pages and images for use on the Internet
- utilize appropriate scripting technologies to generate dynamic, interactive Web pages and perform other server and client-side processing functions
- demonstrate proficiency in the installation, configuration, and administration of Web servers and Web sites
- demonstrate knowledge of Internet-based business strategies of marketing, e-commerce and security
- work effectively as part of an information technology team and provide appropriate Web technology support to internal and external clients
- demonstrate academic knowledge required of all graduates including competency in: critical thinking, writing, information literacy, oral communication and quantitative reasoning
- identify career and transfer options and assume a professional role in the workplace

PROGRAM REQUIREMENTS (TOTAL CREDITS — 61)

General Education

CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 162 or	Technical Commun.	
ENG 163 or	Business Commun.	3
ENG 164	Advanced Composition	
SPC 155 or	Effective Speech	3
SPC 156	Interpersonal Comm.	
Mathematics Elective		3
Social Science Elective		3
		18

Major

CPT 196	Access for Windows	3
CPT 201	Web Design/Web Stdrds.	3
CPT 203	XHTML & JavaScript	3
CPT 277	E-Commerce Technology	3
WEB 120	Flash - Basic	3
WEB 140	Dreamweaver - Basic	3
WEB 150	Web Design	3
WEB 162	Fireworks	3
WEB 200	Web Technologies	3
WEB 239	Dreamweaver - Adv.	3
WEB 295 or	Web Architecture	3
WEB 199	Web Internship	
		33

Other Required Courses

BUS 245	Prin. of Marketing	3
GCT 102	Acrobat Essentials	1
MKT 251	Consumer Behavior	3
MKT 254	Advert. and Promo.	3
		10

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester	
CPT 150	3
CPT 201	3
ENG 161	3
WEB 120	3
WEB 150	3
	15

Spring Semester	
BUS 245	3
CPT 196	3
ENG 162, 163 or 164	3
WEB 140	3
WEB 162	3
	15

Fall Semester	
CPT 203	3
GCT 102	1
MKT 251	3
SPC 155 or 156	3
WEB 200	3
WEB 239	3
	16

Spring Semester	
CPT 277	3
MKT 254	3
WEB 295 or 199	3
Social Science Elective	3
Mathematics Elective	3
	15

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Eastern Westmoreland Career and Technology Center, and Mon Valley Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Graphic and Web Design, Certificate

GRAPHIC DESIGN

Division of Computer Technology/Business

The graphic design certificate is designed to equip students with the skills and knowledge required to conceptualize and produce the graphic art and visual materials necessary to effectively communicate visual and conceptual information for a variety of media. Students will explore the many facets of graphic design and art direction, industry-based technology, typography, corporate, editorial and information design, and design theory.

Career Opportunities

Graduates of the graphic design certificate enjoy exciting entry-level positions in the visual/graphic arts industry such as advertising, graphic deign, illustration, digital prepress and signage. Some students may choose to be a self-employed or a freelance artist.

Competency Profile

This curriculum is designed to prepare students to:

- function as a member of a creative team in the research, design and preparation of print communications
- hone skills in creative problem solving to learn how to meet the needs of clients quickly, creatively and economically
- incorporate typography, graphic deign, and illustration techniques in the production of graphic images and publications
- integrate scanned images with digital editing/retouching techniques to create images for commercial printing
- demonstrate working knowledge of layout and design integrating illustrations, photographic images with page layout software

PROGRAM REQUIREMENTS (TOTAL CREDITS — 17)

GCT 100	Macintosh OS	1
GCT 102	Acrobat Essentials	1
GCT 115	Digital Design - 2D	3
GCT 130	InDesign - Basic	3
GCT 150	Illustrator - Basic	3
GCT 160	Photoshop - Basic	3
GCT 261	Photoshop - Advanced	3
		17

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
GCT 100	1	GCT 102	1
GCT 115	3	GCT 130	3
GCT 150	3	GCT 261	3
GCT 160	3		**7**
	10		

Graphic and Web Design, Certificate

2D ANIMATION

Division of Computer Technology/Business

The 2D animation certificate provides students with extensive hands-on experience in the design and delivery of cross-platform, low-bandwidth animations, presentations and Web applications. The program focuses on project requirements, Web design and structure, and stresses the importance of usability, optimization and performance.

Career Opportunities

Graduates will have acquired the skills necessary for entry-level positions such as Web designer, digital artist, Flash designer, Internet marketing designer, digital media producer and project coordinator.

Competency Profile

This curriculum is designed to prepare students to:

- identify important components of effective planning and implement visual design, motion design, optimization and publishing output in a complex Flash application
- function as a member of a creative team in the research, design and preparation of Web communications
- structure Flash documents effectively by using the timeline, layers and movie clips
- incorporate QuickTime, Shockwave and Flash for delivery on CD-ROM and over the Web

PROGRAM REQUIREMENTS (TOTAL CREDITS — 16)

GCT 150	Illustrator - Basic	3
GCT 160	Photoshop - Basic	3
MED 103	Podcasting Basics	1
WEB 120	Flash - Basic	3
WEB 180	Flash - Animation I	3
WEB 280	Flash - Animation II	3
		16

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**		**Fall Semester**	
GCT 150	3	MED 103	1	WEB 280	3
CT 160	3	WEB 180	3		**3**
WEB 120	3		**4**		
	9				

Graphic and Web Design, Certificate

WEB DESIGN

Division of Computer Technology/Business

The Web design certificate program provides students with the technical and creative skills needed for a quality educational background. Students learn a range of production skills including interface design, motion graphics, Web coding, Web graphics, production and interactive design. Students also master industry-standard software and often work in a team-based environment to create content collaboratively.

Career Opportunities

Graduates will have acquired the skills necessary for entry-level positions as a Web designer with Web design and Internet companies, advertising and design agencies, motion picture studios and video production companies.

The Web Design certificate is available as either a classroom or completely online program of study.

Competency Profile

This curriculum is designed to prepare students to:

- plan and create effective, cohesive design solutions using a variety of Web communications
- use current software and technology to create Web site layouts while applying color theory and graphic design principles
- plan and design interactive projects that demonstrate navigational and organizational methodologies
- apply project management and teamwork skills to address industry issues
- develop skills for effective oral and written communication, presentation and critical thinking

PROGRAM REQUIREMENTS (TOTAL CREDITS — 16)

GCT 102	Acrobat Essentials	1
WEB 120	Flash - Basic	3
WEB 140	Dreamweaver - Basic	3
WEB 150	Web Design	3
WEB 162	Fireworks	3
WEB 239	Dreamweaver - Adv.	3
		16

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
GCT 102	1	WEB 120	3
WEB 140	3	WEB 239	3
WEB 150	3		**6**
WEB 162	3		
	10		

Graphic and Web Design, Certificate

WEB DEVELOPMENT

Division of Computer Technology/Business

The Web development certificate offers the student exposure to a variety of Web page development tools and modern programming languages.

Career Opportunities

Graduates of the Web development certificate program can expect to find employment as computer programmers, systems analysts, PC technicians, programmer analysts, technical sales representatives, technical support analysts or Web developers.

Competency Profile

This curriculum is designed to prepare students to:

- design and create Internet and intranet-based Web solutions
- enhance Web sites with interactivity for real-time processing
- identify and correct problems associated with Web sites

PROGRAM REQUIREMENTS (TOTAL CREDITS — 17)

CPT 120	Intro to the Internet	1
CPT 201	Web Dsgn./Web Stndrds.	3
CPT 203	XHTML and JavaScript	3
CPT 206	Server Programming	3
CPT 207	Beginning XML	3
GCT 102	Acrobat Essentials	1
WEB 150	Web Design	3
		17

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
CPT 120	1	GCT 102	1
CPT 201	3	CPT 206	3
CPT 203	3	CPT 207	3
WEB 150	3		**7**
	10		

Graphic and Web Design, Certificate

3D ART/ANIMATION

Division of Computer Technology/Business

3-D computer animation is the world's fastest growing creative technology. A career in animation requires strong artistic skills and familiarity with the latest in computer animation technologies. It also requires the ability to turn creative thoughts into compelling images, using them to effectively communicate an idea. Computer animation, like many creative fields, is fiercely competitive. As the Web, the entertainment industry, and other multimedia outlets continue to grow, there continues to be opportunities for talented 3D artists to work as animators.

Career Opportunities

Graduates of the 3D art/animation design certificate are prepared for entry-level positions as computer gaming producers, as well as positions in film and video studios. Other opportunities for people training in 3D animation exist in commercial production, entertainment, education and the military. Other industries that use 3D animation include interior design, architecture, medical training and naval architecture.

Competency Profile

This curriculum is designed to prepare students to:

- create and refine high quality 3D models that maximize technology and that fulfill the requirements of a project's functional, artistic, and technical specifications
- work well on multiple projects with overlapping schedules
- work directly with clients to understand project requirements, gather necessary reference material, and obtain approval for final project deliverables
- follow art and technical direction
- deliver work product in accordance with established schedule estimates

PROGRAM REQUIREMENTS (TOTAL CREDITS — 16)

GCT 100	Macintosh OS	1
GCT 160	Photoshop - Basic	3
GCT 170	Maya - Basic	3
GCT 173	Maya - Texturing/Modeling	3
GCT 176	Maya - Animation	3
GCT 270	Maya - Advanced	3
		16

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**		**Summer Semester**	
GCT 100	1	GCT 173	3	GCT 270	3
GCT 160	3	GCT 176	3		**3**
GCT 170	3		**6**		
	7				

Heating, Ventilation, Air-Conditioning and Refrigeration, AAS

Division of Technologies/Culinary Arts/Mathematics/Sciences

This program provides students with an in-depth background of the heating, ventilation, air-conditioning and refrigeration industry. By combining theory and practical shop experiences, students will develop the skills needed for design, installation, maintenance and troubleshooting HVAC&R systems for residential and commercial applications.

A special feature of this program is a cooperative work experience which enables students to gain practical experience in the field. The courses are designed to build on the work experience and integrate classroom, shop and employment into a unified learning experience.

Successful completion of this program leads to the associate in applied science degree.

Career Opportunities

Recent graduates of the HVAC&R program have obtained jobs with the following titles: HVAC instructor, service technician, installer, inside salesperson, maintenance technician, contractor and troubleshooter.

Competency Profile

This curriculum is designed to prepare students to:

- work as a team to solve problems
- use control logic to find, fix and repair problems in HVAC&R systems
- utilize tables, graphs, and calculators to design and select equipment
- use computers to determine heating and cooling loads, air distribution systems, and hydronic systems
- identify and demonstrate the proper use of refrigeration and heating hand tools, materials and equipment
- become universally certified under the Clean Air Act, Title VI, Section 608
- design and fabricate duct work from metal as well as fiberglass duct board
- read electrical schematic and ladder diagrams as used in HVAC&R equipment
- use the library and the WCCC computer network to research problems and find solutions to problems in the industry
- communicate effectively and appropriately; record and report information significant to the job

PROGRAM REQUIREMENTS (TOTAL CREDITS — 60/62)

General Education

ENG 161	College Writing	3
ENG 162	Technical Commun.	
or		
ENG 163	Business Commun.	3
or		
ENG 164	Advanced Composition	
MTH 108	Math for the Tech. I	4
Computer Technology Elective		3
Science Elective		3/4
Social Science Elective		3
		19/20

Major

HAC 101	Heating & Cooling Fund.	4
HAC 150	Psychro. & Heat Load Est.	3
HAC 170	HAC&R Control Systems	3
HAC 230	Air Dist. Design & Code	3
HAC 240	Sheet Metal for HAC&R	4
HAC 250	Air-Conditioning I	4
HAC 255	Air-Conditioning II	4
HAC 260	Hydronics	4
		29

Other Required Courses

ELC 105	Elec. Instru. & Measure.	2
ELC 106	Circuit Analysis I	3
PHY 107	Applied Physics	4
Drafting Elective		3/4
		12/13

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester	
ELC 105	2
ELC 106	3
ENG 161	3
HAC 101	4
MTH 108	4
	16

Spring Semester	
HAC 150	3
HAC 170	3
HAC 240	4
Drafting Elective	3/4
Science Elective	3/4
	16/18

Fall Semester	
ENG 162, 163 or 164	3
HAC 230	3
HAC 250	4
PHY 107	4
	14

Spring Semester	
HAC 255	4
HAC 260	4
Computer Elective	3
Social Science Elective	3
	14

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Eastern Westmoreland Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Heating, Ventilation, Air-Conditioning and Refrigeration, Certificate

Division of Technologies/Culinary Arts/Mathematics/Sciences

The heating, ventilation, air-conditioning and refrigeration certificate program provides students the basic skills to work in an entry level position in the HVAC&R field. The class and lab experiences will help the student develop skills in installation, maintenance and troubleshooting for residential as well as commercial applications.

Career Opportunities

Graduates of this program can obtain jobs as service technicians, installers, maintenance technicians or troubleshooters.

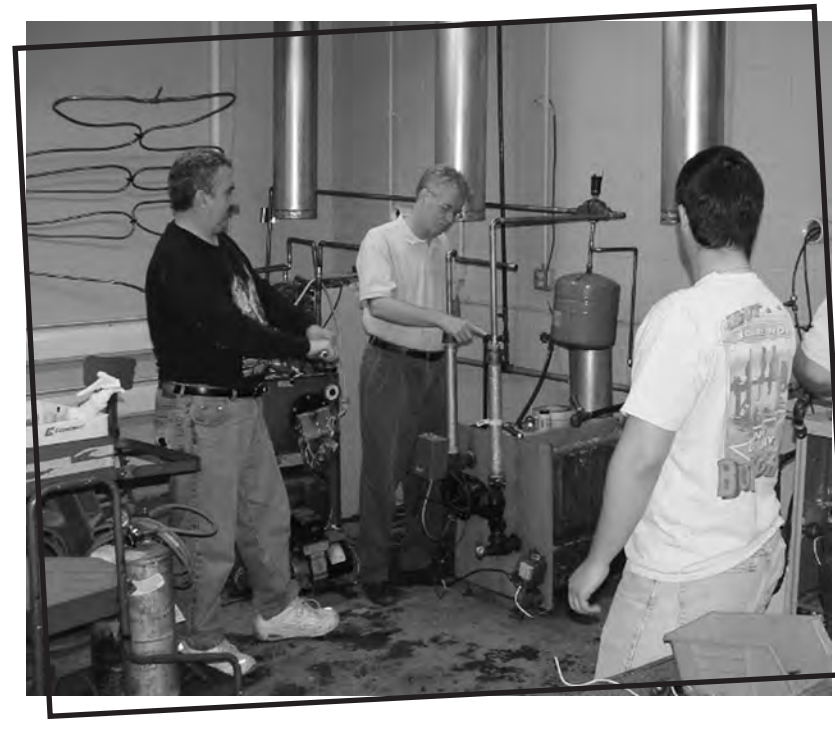
Competency Profile

This curriculum is designed to prepare students to:

- work as a team to solve problems
- identify and demonstrate the proper use of refrigeration and heating hand tools, materials and equipment
- design and fabricate duct work from metal as well as fiberglass duct board
- read schematic and ladder diagrams as used in HVAC&R equipment

PROGRAM REQUIREMENTS (TOTAL CREDITS – 26)

HAC 101	Heating & Cooling Fund.	4
HAC 170	HVAC&R Control Sys.	3
HAC 240	Sheet Metal for HVAC&R	4
HAC 250	Air-Conditioning I	4
HAC 255	Air-Conditioning II	4
HAC 260	Hydronics	4
HAC 290	Refrigeration Recovery	3
		26



RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
HAC 101	4	HAC 170	3
HAC 240	4	HAC 255	4
HAC 250	4	HAC 260	4
	12	HAC 290	3
			14

Horticulture, AAS

LANDSCAPE DEVELOPMENT AND MAINTENANCE
Division of Technologies/Culinary Arts/Mathematics/Sciences

The landscape development and maintenance program focuses on preparing graduates for employment and advancement in the landscape planning, design, installation and maintenance industry. Special emphasis is given to landscape design, planting and transplanting, plant and soil pests identification and control, and maintenance of landscape plants.

Career Opportunities

Graduates of this program may be employed as landscape designers, garden center and nursery workers, landscape service specialists, and full-service landscape technicians.

Competency Profile

This curriculum is designed to prepare students to:

- use knowledge of plant growth and development in decision-making
- use knowledge of plant and soil interactions in decision-making
- identify, effectively use and care for landscape plants
- design landscapes to be both aesthetic and functional
- recognize, prevent, treat and control pests of landscape plants
- solve problems, common in the landscape industry by using knowledge of plants and the environment

PROGRAM REQUIREMENTS (TOTAL CREDITS – 64)

General Education

CHM 107	Intro Concepts in Chem.	4
CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 163	Business Commun.	3
Mathematics Elective		3
Social Science Elective		3
		19

Major

HOR 105	Intro to Horticulture	3
HOR 107	Landscape Drawing	3
HOR 109	Landsc. Equip. & Struct.	3
HOR 110	Intro. to Turfgrass Mgmt.	3
HOR 125	Ornamental Shrubs	3
HOR 126	Ornamental Trees	3
HOR 155	Soils & Soil Fertility	4
HOR 157	Insects/Diseases of Plants	4
HOR 199	Internship	3
HOR 205	Residential Landscaping	3
HOR 207	Advanced Landscaping	3
HOR 215	Annu. & Herb. Perennials	3
HOR 280	Landscape Inst. & Main.	3
		41

Other Required Courses

BIO 145	General Botany	4
		4

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
BIO 145	4	CHM 107	4	HOR 107	3	HOR 109	3
CPT 150	3	ENG 163	3	HOR 126	3	HOR 205	3
ENG 161	3	HOR 125	3	HOR 157	4	HOR 207	3
HOR 105	3	HOR 155	4	HOR 199	3	HOR 280	3
HOR 110	3	Mathematics Elective	3	HOR 215	3	Social Science Elective	3
	16		**17**		**16**		**15**

Hotel/Motel Management, AAS

Division of Technologies/Culinary Arts/Mathematics/Sciences

Hotel/motel management is one of seven majors comprising the college's hospitality program. This curriculum is designed to prepare students for various positions within the lodging industry. Emphasis is given to the development of knowledge and skills in such essential areas as food and beverages, front office management, and management as it applies to the areas of travel, tourism, recreation and property. This program also requires the student to participate in three credits of internship so that classroom learning can be applied or experienced at lodging facilities.

Students are expected to be well groomed in compliance with standards of sanitation. Uniforms, decorative tips and a cutlery set are required for all lab classes. Students will also be required to provide medical proof of good physical health.

Career Opportunities

Students earning an associate degree in this program may be employed in positions such as hotel/motel general operations managers or assistant managers; food, beverage and banquet managers or assistants; customer service represenatives, convention and special event coordinators; sales managers and sales representatives, department managers or assistants for lodging facilities.

Competency Profile

This curriculum is designed to prepare students to:

- recognize the role of management in controlling and supervising the functions of the various departments, properties and activities of lodging operations
- research, analyze and apply marketing objectives and strategies to the operations necessary for the management of lodging facilities
- understand the economic and social impact of travel and tourism to the local, regional and international economies and social structures
- utilize interpersonal and personal skills to manage food and beverage operations within lodging properties using acceptable procedures, practices and acquired skills
- maintain and analyze the records, financial data and systems of operation necessary for the management of lodging systems
- anticipate and satisfy diverse customer expectations
- practice technical skills needed for front office management which includes preparation of daily reports
- develop and monitor standard housekeeping practices within the lodging industry
- utilize computer technology to manage lodging systems
- learn the procedures and responsibilities of departmental teams within a lodging operation

PROGRAM REQUIREMENTS (TOTAL CREDITS — 64)

General Education

CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 163	Business Commun.	3
Humanities Elective		3
Mathematics Elective		3
Social Science Elective		3
		18

Major

FSM 105	Foods I	4
FSM 112	Quantity Foods	
or		
FSM 127	Service Tech.	4
and		
FSM 157	Catering	
FSM 113	Customer Service	3
FSM 118	Sanitation	2
FSM 215	Food Purch. & Menu Mgmt.	3
FSM 218	Hospitality Marketing	3
FSM 219	Hospitality Internship	3
FSM 235	Supervision & Training	3
HMT 160	Exec. Houskpg/Front Off.	3
HMT 161	Recrea. & Entmnt. Mgmt.	3
HMT 170	Casino/Gaming Oper.	3
HMT 262	Lodg. & Property Mgmt.	3
HMT 264	Convent./Meeting Mgmt.	3
		40

Other Required Courses

ACC 105	Financial Recordkeeping	
or		3
ACC 156	Accounting for Managers	
TRV 171	Travel/Tourism Princ.	3
		6

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
CPT 150	3	ENG 163	3	ACC 105 or 155	3	FSM 112	
ENG 161	3	FSM 118	2	FSM 218	3	or	4
FSM 105	3	HMT 160	3	HMT 264	3	FSM 127 & FSM 157	
FSM 113	4	HMT 161	3	TRV 171	3	FSM 215	3
Mathematics Elective	3	HMT 170	3	Humanities Elective	3	FSM 219	3
	16	Social Science Elective	3		**15**	FSM 235	3
			17			HMT 262	3
							16

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Central Westmoreland Career and Technology Center, Eastern Westmoreland Career and Technology Center, Fayette County Area Vocational-Technical School, Lenape Area Vocational-Technical School, Northern Westmoreland Career and Technology Center, and Mon Valley Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Hotel/Motel Management, Certificate

Division of Technologies/Culinary Arts/Mathematics/Sciences

The certificate in hotel/motel management is designed to provide entry and intermediate level skills for employment within the lodging industry. Customer service and computer applications are emphasized. Courses within this program also include information on front office skills, housekeeping management, and lodging and property management.

Career Opportunities

Students earning a certificate in this program may be employed in positions such as hotel assistant managers; food, beverage and banquet managers or assistants; convention and special event coordinators; sales managers, department managers or assistants for lodging facilities.

Competency Profile

This curriculum is designed to prepare students to:

- anticipate and satisfy diverse customer expectations
- utilize interpersonal and personal skills in a lodging facility
- practice technical skills needed for front office management which includes preparation of daily reports
- develop and monitor standard housekeeping practices within the lodging industry
- utilize computer technology to manage lodging systems
- learn the procedures and responsibilities of departmental teams within a lodging operation

PROGRAM REQUIREMENTS (TOTAL CREDITS — 17)

ACC 105	Fin. Recordkeeping	3
CPT 150	Microcomputer Concepts	3
FSM 113	Customer Service	3
FSM 118	Sanitation	2
HMT 160	Exec. Houskpg./Front Office	3
HMT 262	Lodg. & Property Mgmt.	3
		17

Human Services, AAS

Division of Health Professions/Biology

The human services program prepares students for employment in agencies that provide many kinds of support to people in need. The course of study permits students classroom instruction and firsthand knowledge in a human service setting. Students choosing a human service major are motivated by a sincere concern and desire to help others.

As part of the AAS degree in human services, students are required to complete two semesters of field placement known as a practicum (HMS 258 and HMS 259). It is through this experience that human services students acquire some of their most valuable education and experience. The practicums are an opportunity for students to test and use the knowledge and skills they have gained in the classroom and through their own life experiences. It is also very common for students to be offered a job by their practicum placements.

Career Opportunities

Students who complete this program of study may be employed as entry level case aides or caseworkers, resident counselors in youth and adult programs, and other entry level human service positions in nonprofit agencies.

Competency Profile

This curriculum is designed to prepare students to:

- use their local human services system to access services for themselves and others
- identify target populations according to their need for services
- provide basic casework services to clients
- access and use the appropriate technology for providing services to clients
- use appropriate and effective communication skills in the helping environment
- conduct an information-gathering interview with those seeking service
- prepare an assessment of client needs
- use a basic problem-solving method to help individuals address their needs
- organize and facilitate a support, educational or task group
- write a basic social history report
- organize a standard social services record of information and services
- devise an action plan for services for clients
- identify client strengths and weaknesses
- work with clients from a variety of cultures and abilities
- utilize a basic knowledge of substance abuse issues when identifying and treating client problems
- understand how human services are funded and the impact of the political process on programs and services

PROGRAM REQUIREMENTS (TOTAL CREDITS — 62)

General Education

ENG 161	College Writing	3
ENG 163	Business Commun.	
or		3
ENG 164	Advanced Composition	
SOC 155	Principles of Sociology	3
SPC 155	Effective Speech	3
Computer Technology Elective		3
Mathematics Elective		3
		18

Major

HMS 155	Intro to Human Services	3
HMS 156	Comm. for HMS Workers	3
HMS 157	Intvwing./Recrdkpg. Sk.	3
HMS 160	Group Process	3
HMS 162	Prob. Solving/Couns. Sk.	3
HMS 172	Drug/Alcohol Depend.	3
HMS 258	HMS Practicum I	4
HMS 259	HMS Practicum II	4
		26

Other Required Courses

PSY 160	General Psychology	3
PSY 161	Human Growth & Dev.	
or		3
PSY 270	Abnormal Psychology	
Restricted Electives*		12
		18

***Restricted Electives**

CHC 186	Cult./Soc./Dev. of Child
CHC 188	Exceptional Development
CRJ 255	Juvenile Delinquency
HMS 170	Racial/Ethnic Minorities
HMS 171	Intro to Gerontology
PSY 260	Social Psychology
PSY 265	Child Psychology
PSY 270	Abnormal Psychology
SOC 161	Marriage and Family
SOC 162	Contemp. Soc. Problems

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
ENG 161	3	ENG 163 or 164	3	HMS 160	3	HMS 162	3
HMS 155	3	HMS 157	3	HMS 258	4	HMS 259	4
HMS 156	3	HMS 172	3	SPC 155	3	Mathematics Elective	3
PSY 160	3	PSY 161 or PSY 270	3	Computer Tech. Elective	3	Restricted Elective*	6
SOC 155	3	Restricted Elective*	3	Restricted Elective*	3		**16**
	15		**15**		**16**		

Legal Assisting, AAS

Division of Public Service/Humanities/Social Sciences

The legal assisting associate degree program is designed to provide students with the knowledge and skills needed to perform legal services on a paraprofessional level, usually under the direct supervision of a lawyer. Typical tasks include legal research, client interviewing, investigation, drafting of pleadings, motions, memoranda and other documents, and creating and maintaining client files.

Career Opportunities

Legal assistants are employed by law firms, corporations, government agencies and community legal service agencies. Many legal assistants specialize in one area of the law such as corporate law, real estate, labor law, litigation, domestic law, or estates and trusts.

Competency Profile

This curriculum is designed to prepare students to:

- demonstrate effective communication skills, orally, verbally, by actively listening, and by reading and understanding legal documents
- understand and apply mathematical concepts and numerical computational skills utilized in a legal setting
- demonstrate a thorough understanding of diversity in the workplace and in society, citizenship, ethics and human relations
- apply effective critical thinking and problem solving skills in interpersonal situations with clients and other professionals in the workplace
- collect, analyze, synthesize and organize information from clients, personnel in the legal system, and apply good research and investigative skills utilizing the appropriate legal terminology
- utilize effective interpersonal skills with others in the legal environment, including supervisors, clients, and other legal professionals
- demonstrate an ability to change and adapt to changing circumstances, including the continuing learning environment of the legal professional, along with the responsibility to change and adapt themselves, personally and professionally
- demonstrate effective use of technology, including computer-assisted legal research, the Internet, and other technology utilized for research, investigative skills and applications in a legal setting.

PROGRAM REQUIREMENTS (TOTAL CREDITS — 60)

General Education

ENG 161	College Writing	3
ENG 163	Business Commun.	
or		3
ENG 164	Advanced Composition	
Computer Technology Elective		3
Humanities Elective		3
Mathematics Elective		3
Social Science Elective		3
		18

Major

LAS 101	The Legal Assistant	3
LAS 111	Legal Analysis	3
LAS 115	Torts	3
LAS 120	Estates and Trusts	3
LAS 125	Litigation I	3
LAS 140	Domestic Relations	3
LAS 150	Contracts	3
LAS 175	Property Law	3
LAS 210	Legal Writing	3
LAS 215	Legal Research	3
LAS 293	Internship	3
		33

Other Required Courses

CRJ 160	Criminal Law I	3
Restricted Electives*		6
		9

***Restricted Electives**

ACC 155	Accounting I
BUS 249	Labor Relations
CRJ 261	Criminal Law II
LAS 155	Corporations
LAS 160	Bankruptcy Law
LAS 200	Amer. Constitutional Exp.
LAS 225	Litigation II

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
ENG 161	3	ENG 163 or 164	3	LAS 120	3	CRJ 160	3
LAS 101	3	LAS 115	3	LAS 150	3	LAS 140	3
LAS 111	3	LAS 125	3	LAS 175	3	LAS 293	3
Computer Tech. Elective	3	LAS 210	3	LAS 215	3	Restricted Elective*	6
Mathematics Elective	3	Humanities Elective	3	Social Science Elective	3		**15**
	15		**15**		**15**		

Legal Assisting, Diploma

Division of Public Service/Humanities/Social Sciences

The legal assisting diploma program is designed to provide a solid foundation in the principles and practices involved in performing certain paraprofessional services.

Career Opportunities

Graduates of the program typically work in areas involving legal research, preparation of documents, maintenance of files and client interviewing.

Competency Profile

This curriculum is designed to prepare students to:

- use good research skills
- understand basic legal terminology
- gain familiarity with computer operations and applications
- prepare, under supervision, legal documents such as deeds and mortgages

PROGRAM REQUIREMENTS (TOTAL CREDITS — 33)

General Education		
ENG 161	College Writing	3
Computer Technology Elective		3
Mathematics Elective		3
Social Science Elective		3
		12

Major		
LAS 101	The Legal Assistant	3
LAS 111	Legal Analysis	3
LAS 125	Litigation I	3
LAS 175	Property Law	3
LAS 210	Legal Writing	3
LAS 215	Legal Research	3
		18

Other Required Courses	
Restricted Elective*	3
	3

*Restricted Electives
These are listed in the legal assisting associate degree program.

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester	
ENG 161	3
LAS 101	3
LAS 111	3
LAS 175	3
Computer Elective	3
	15

Spring Semester	
LAS 125	3
LAS 210	3
Mathematics Elective	3
Restricted Elective*	3
Social Science Elective	3
	15

Fall Semester	
LAS 215	3
	3

Library Science, Certificate

Division of Public Service/Humanities/Social Sciences

The library science certificate program provides students with the knowledge and skills to work in entry level positions in libraries in a variety of settings.

Career Opportunities

Graduates of this program can expect to obtain employment in libraries or information centers, schools, government agencies, hospitals, corporations, law firms, museums, and professional associations. Individuals who hold a bachelor's degree in any field and complete this certificate program will be eligible to apply for certification as Provisional Librarians in Pennsylvania.

Competency Profile

This curriculum is designed to prepare students to:

- assist library users in locating and evaluating information resources in print and online
- utilize computer and information technology skills to perform tasks associated with the acquisition and preparation of materials for library collections
- perform tasks associated with the circulation of materials, administrative services, and programming for special populations

PROGRAM REQUIREMENTS (TOTAL CREDITS – 16)

CPT 120	Intro to the Internet	1
LIS 100	Intro to Library Science	3
LIS 110	Cataloging & Classifi.	3
LIS 120	Info Sources & Services	3
LIS 130	Materials Sel. (Coll. Dev.)	3
LIS 140	Library Administration	3
		16

Machine Technology, AAS

Division of Technologies/Culinary Arts/Mathematics/Sciences

This program prepares students for employment and advancement in the machine tool field. Machinists are skilled workers who are able to read and interpret prints, use common hand tools, set up and operate metal cutting machines, and use precision measuring instruments. This program curriculum parallels the National Institute of Metalworking Skills Standards. Advanced placement in this program is possible for experienced machinists. Apprenticeship advanced standing credit is available.

Career Opportunities

Graduates of this program can accept jobs with the following titles: mold maker, tool maker, die maker, metal worker, machinist, and foreman.

Competency Profile

This curriculum is designed to prepare students to:

- produce jobs, fixtures, gauges and other devices used in the manufacture of precision metal parts
- construct metal forms (dies) to shape metal in stamping and forging operations
- make metal molds for the die castings and for molding plastics
- assist in designing tools and dies
- appropriately utilize metals and alloys
- interpret prints and sketch orthographically in two and three dimension
- effectively plan and sequence work operations
- communicate effectively and appropriately; record and report information significant to the job
- utilize effective mathematics skills
- apply concepts from physics, engineering and mathematics to the synthesis of durable products

PROGRAM REQUIREMENTS (TOTAL CREDITS – 64)

General Education

CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 162	Technical Commun.	3
MTH 108	Math for the Tech. I	4
PHY 107	Applied Physics	4
Social Science Elective		3
		20

Major

MTT 100	Intro to Metalworking	3
MTT 102	Geo. Dimen. & Toler.	3
MTT 105	Lathe I	3
MTT 110	Mill I	3
MTT 206	Lathe II	3
MTT 211	Mill II	3
MTT 215	Grinding I	3
MTT 220	EDM	3
		24

Other Required Courses

CNC 100	Intro to CNC	3
CNC 200	CNC I	4
CNC 201	CNC II	4
CNC 260	Computer-Aided Manuf.	4
DFT 110	Blueprint Reading	2
DFT 112	Intro Design, Mat. & Proc	3
		20

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
DFT 110	2	CNC 100	3	CNC 200	4	CNC 201	4
DFT 112	3	ENG 162	3	MTT 206	3	CPT 150	3
ENG 161	3	MTT 102	3	MTT 211	3	CNC 260	4
MTH 108	4	MTT 105	3	MTT 215	3	MTT 220	3
MTT 100	3	MTT 110	3	Social Science Elective	3	PHY 107	4
	15		**15**		**16**		**18**

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Central Westmoreland Career and Technology Center, Eastern Westmoreland Career and Technology Center, Northern Westmoreland Career and Technology Center, Fayette County Area Vocational-Technical School, Greene County Area Vocational-Technical School, Mon Valley Career and Technology Center, and Western Area Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Machine Technology, Certificate

Division of Technologies/Culinary Arts/Mathematics/Sciences

The machine technology certificate program provides students with the basic skills to work in an entry level position in the machining field. The class and lab experiences will help the student develop skill in the use of common hand tools, operation of metal cutting machines, and the use of precision measuring instruments.

Career Opportunities

Graduates of this program can obtain jobs as metal workers, machine operators or machinists.

Competency Profile

This curriculum is designed to prepare students to:

- work as a team to solve problems
- produce fixtures, gauges and other devices used in the manufacture of metal parts
- make various processes in the manufacturing of various metal parts
- read and interpret prints

PROGRAM REQUIREMENTS (TOTAL CREDITS – 20)

CNC 100	Intro to CNC	3
DFT 110	Blueprint Reading	2
DFT 112	Intro to Dgn., Mat. & Pro.	3
MTT 100	Intro to Metalworking	3
MTT 102	Geo. Dimen. & Toler.	3
MTT 105	Lathe I	3
MTT 110	Mill I	3
		20

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
CNC 100	3	DFT 112	3
DFT 110	2	MTT 105	3
MTT 100	3	MTT 110	3
MTT 102	3		**9**
	11		

Manufacturing Technology, AAS

CHEMICAL PROCESS TECHNOLOGY OPTION

Division of Technologies/Culinary Arts/Mathematics/Sciences

The chemical process technology option is designed to prepare students to gain entry level positions working as plant operations technicians in the chemical manufacturing industry. Graduates work in positions requiring skills in product flow, quality control and problem solving.

Career Opportunities

Graduates of this program may be employed as chemical lab technicians, quality control technicians, analytical engineers, chemical process operators or process technicians.

Competency Profile

This curriculum is designed to prepare students to:

- maintain safety, health and environmental standards in a plant
- handle, store and transport chemical materials
- operate, monitor and control continuous processes
- apply concepts from chemistry, engineering, electronics, and mathematics to the synthesis of durable products
- provide routine and preventative maintenance and service to processing equipment and instrumentation
- identify, analyze and troubleshoot problems using systems approach
- apply understanding of flexible manufacturing systems to practical situations
- communicate effectively and appropriately; record and report information significant to the job

PROGRAM REQUIREMENTS (TOTAL CREDITS — 62)

General Education

CHM 107	Intro to Con. Chem. I	4
CPT 150	Microcomputer Con. (C)	3
ENG 161	College Writing	3
ENG 162	Technical Commun.	3
MTH 108	Math for Tech. I	4
Social Science Elective		3
		20

Major

MPT 100	Prog. Logic Control I	4
MPT 112	Intro to Dsgn. Mat. Pro.	3
MPT 170	Industrial Chemistry I	3
MPT 199	MPT Internship	
or		3
MPT 201	Prog. Logic Control III	
MPT 200	Prog. Logic Control II	4
MPT 209	Man. Process Control	4
MPT 240	Intro to Auto Manufac.	3
		24

Other Required Courses

EGR 180	Prin. of Ind. Hydraulics	4
EGR 210	Quality Control	3
ELC 105	Electronic Inst./Meas.(A)	2
ELC 106	Circuit Analysis (B)	3
PHY 150	Energy & Society	3
MTH 160	Intro to Statistics	3
		18

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
MPT 112	3	CHM 107	4	EGR 180	4	EGR 210	3
ELC 105	2	CPT 150	3	MPT 170	3	MPT 199	
ELC 106	3	ENG 162	3	MPT 200	4	or	3
ENG 161	3	MPT 100	4	MPT 209	4	MPT 201	
MTH 108	4	PHY 150	4		**15**	MPT 240	3
	15		**17**			MTH 160	3
						Social Science Elective	3
							15

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Central Westmoreland Career and Technology Center, Eastern Westmoreland Career and Technology Center, and Northern Westmoreland Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Manufacturing Technology, AAS

MANUFACTURING MAINTENANCE APPRENTICESHIP OPTION

Division of Technologies/Culinary Arts/Mathematics/Sciences

This program focuses on the maintenance and repair requirements of the manufacturing industry. Students learn how to operate, maintain and repair electrical and associated machinery and are able to detect, identify and correct any trouble that develops. They use hand and power tools to make repairs that range from replacing a part to a complete overhaul. In addition, students develop and implement building or plant safety procedures.

This program is designed to be taken on a part-time basis.

Career Opportunities

Students enrolled in this program are registered with the U.S. Department of Labor as apprentices. Career opportunities for manufacturing maintenance technicians exist in the areas of industrial maintenance as equipment repair technicians.

Competency Profile

This curriculum is designed to prepare students to:

- measure AC and DC voltages and current using a variety of measuring devices
- demonstrate knowledge of computer technology
- contrast codes, standards, recommendation practices and laws
- recognize and correct safety hazards in the workplace
- repair and maintain hydraulic equipment
- repair and maintain electromechanical equipment
- perform oxyacetylene, arc and TIG welding
- apply concepts from physics, chemistry and mathematics to the synthesis of durable products

- communicate effectively and appropriately; record and report information significant to the job

PROGRAM REQUIREMENTS (TOTAL CREDITS — 62)

General Education

CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 162	Technical Commun.	3
MTH 108	Math for Tech. I	4
PHY 107	Applied Physics	4
Social Science Elective		3
		20

Major

MPT 100	PLC I	3
MPT 121	Manufac. Main. Appren. I	2
MPT 122	Manufac. Main. Appren. II	2
MPT 123	Manufac. Main. Appren. III	2
MPT 221	Manufac. Main. Appren. IV	2
MPT 222	Manufac. Main. Appren. V	2
MPT 223	Manufac. Main. Appren. VI	2
		16

Other Required Courses

ELC 106	Circuits I	3
DFT 110	Blueprint Reading	2
DFT 112	Intro Dsgn. Mat. Proc.	3
EGR 122	Industrial Safety	3
EGR 180	Industrial Hydraulics	4
MPT 200	PLC II	4
PHY 150	Energy & Society	3
WEL 125	Welding I	4
		26

Manufacturing Technology, AAS

MANUFACTURING PROCESS TECHNOLOGY OPTION

Division of Technologies/Culinary Arts/Mathematics/Sciences

The manufacturing process technology option is designed to prepare students to gain entry level positions working with automated systems. Graduates work in positions requiring skills in product flow, quality control and problem solving.

Career Opportunities

Many positions are available as manufacturing technicians, automation technicians, electromechanical technicians, plant technicians, method analysis technicians, and testing and quality control technicians.

Competency Profile

This curriculum is designed to prepare students to:

- test, operate, program, modify and repair automated manufacturing systems
- schedule production, test materials, integrate systems
- perform quality control functions and make appropriate adjustments
- apply concepts from chemistry, engineering, electronics, mathematics and drafting to the synthesis of durable products
- identify, analyze and troubleshoot problems using systems approach
- apply understanding of flexible manufacturing systems to practical situations
- communicate effectively and appropriately; record and report information significant to the job

PROGRAM REQUIREMENTS (TOTAL CREDITS — 63)

General Education

CHM 107	Intro to Con. Chem. I	4
CPT 150	Microcomputer Con.	3
ENG 161	College Writing	3
ENG 162	Technical Commun.	3
MTH 108	Math for Tech. I	4
Social Science Elective		3
		20

Major

MPT 100	Prog. Logic Control I	4
MPT 112	Intro to Dsgn. Mat. Pro.	3
MPT 199	MPT Internship	
or		3
MPT 201	Prog. Logic Control III	
MPT 200	Prog. Logic Control II	4
MPT 209	Man. Process Control	4
MPT 240	Intro to Auto Manufac.	3
		21

Other Required Courses

EGR 180	Prin. of Ind. Hydraulics	4
EGR 210	Quality Control	3
ELC 105	Electronic Inst./Meas.	2
ELC 106	Circuits I	3
MTH 160	Intro to Statistics	3
PHY 107	Applied Physics	4
PHY 150	Energy & Society	3
		22

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
MPT 112	3	CHM 107	4	PHY 107	4	EGR 210	3
ELC 105	2	CPT 150	3	EGR 180	4	MPT 199 or MPT 201	3
ELC 106	3	ENG 162	3	MPT 200	4	MPT 209	4
ENG 161	3	MPT 100	4	MTH 160	3	MPT 240	3
MTH 108	4	PHY 150	3		**15**	Social Science Elective	3
	15		**17**				**16**

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Central Westmoreland Career and Technology Center, Eastern Westmoreland Career and Technology Center, and Northern Westmoreland Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Manufacturing Technology, AAS

NANOFABRICATION MANUFACTURING OPTION

Division of Technologies/Culinary Arts/Mathematics/Sciences

The nanofabrication manufacturing option is designed to prepare students to gain entry level positions working in the nanomanufacturing/semiconductor manufacturing industry. Students will study manufacturing at WCCC for three semesters and complete their degree requirements at the Nanofabrication Facility at Penn State University. Graduates work in positions requiring skills in product flow, quality control and problem solving.

Career Opportunities

Many positions are available as manufacturing technicians with industries that include semiconductor manufacturing, opto electronics, biomedical applications and microelecro mechanical devices.

Competency Profile

This curriculum is designed to prepare student to:

- properly operate equipment used in basic nanofabricator manufacturing
- schedule production, test materials, integrate systems
- perform quality control functions and make appropriate adjustments
- apply concepts from chemistry, engineering, electronics and mathematics to the synthesis of durable products
- identify, analyze and troubleshoot problems using systems approach
- apply understanding of nanofabrication manufacturing systems to practical situations
- communicate effectively and appropriately; record and report information significant to the job

PROGRAM REQUIREMENTS (TOTAL CREDITS — 68)

General Education		
CHM 107	Intro to Con. Chem. I	4
CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 162	Technical Commun.	3
MTH 108	Math for Tech. I	4
Social Science Elective		3
		20

Major		
MPT 112	Intro to Dsgn. Mat. Proc.	3
MPT 211	Mat. Sfty. Equip. for Nan.	3
MPT 212	Basic Nanofab. Proc.	3
MPT 213	Thin Film in Nanofab.	3
MPT 214	Lithog. for Nanofab.	3
MPT 215	Mat. Modif. in Nanofab.	3
MPT 216	Char. Pkg. & Test. of Nan.	3
		21

Other Required Courses		
ELC 102	Electronic Devices	4
ELC 105	Electronic Instr. & Mea.	2
ELC 106	Circuit Analysis I	3
ELC 114	Digital Techniques	4
ELC 206	Microprocessors	4
PHY 107	Applied Physics	4
PHY 150	Energy & Society	3
MTH 160	Intro to Statistics	3
		27

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		Spring Semester		Fall Semester		Spring Semester	
ELC 105	2	ELC 102	4	CHM 107	4	MPT 211	3
ELC 106	3	ELC 114	4	CPT 150	3	MPT 212	3
ENG 161	3	ENG 162	3	ELC 206	4	MPT 213	3
MPT 112	3	PHY 150	3	MTH 160	3	MPT 214	3
MTH 108	3	Social Science Elective	3	PHY 107	4	MPT 215	3
	15		**17**		**18**	MPT 216	3
							18

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Central Westmoreland Career and Technology Center, Eastern Westmoreland Career and Technology Center, and Northern Westmoreland Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Medical Assisting, Diploma

Division of Health Professions/Biology

The medical assisting program prepares the graduate to assist the physician with the care and treatment of patients in both administrative and clinical procedures. Some of these administrative functions include patient reception and scheduling appointments, word processing and forms preparation, ordering and maintaining supplies and equipment, and maintaining patient records. Examples of clinical functions include assisting with general physical examination and related patient procedures, collection and processing of laboratory specimens, administering medications, and instructions to patients as specified by the physician.

Career Opportunities

In this role, the medical assistant may be employed in doctor's offices, clinics and health maintenance organizations.

Special Admission and Selection Criteria

- Applicants must be graduates of an accredited secondary school program or hold a GED equivalency certificate prior to selection. Evidence of proficiency in keyboarding and word processing are program prerequisites. A proficiency examination can be completed by submitting a request to the Division of Computer Technology/Business. This requirement also can be met by successfully completing OFT 110 Document Processing I.
- Applicants must complete and submit a WCCC New Student Information Form and an Allied Health Programs Application to the Admissions Office by June 1 prior to the fall semester for which enrollment is anticipated to be guaranteed consideration. Since this program requires a supervised clinical placement, enrollment may be limited. Applicants who are selected will be scheduled for an interview with the division chair of Health Professions/Biology prior to program enrollment.
- Applicants must also take the computerized placement test (Accuplacer) and have successfully completed any required developmental courses prior to program acceptance. All developmental courses and high school coursework must be completed with a minimum grade of C prior to program acceptance. (C minus grade not accepted.)
- Applicants who have completed credit courses must have a 2.0 GPA. Only courses necessary to meet the Medical Assisting program requirements are considered when calculating GPA. If the GPA is less than 2.0, one or more of the courses can be repeated in order to meet this requirement. The student must maintain a 2.0 GPA in order to progress in the program.
- Applicants who are accepted must have successfully completed CPR/Basic Life Support for Health Care Providers Annual Certification and a first aid training program prior to program enrollment.
- Applicants who are accepted must submit satisfactory results from pre-entrance physical, dental, hearing, and eye examinations obtained at the applicant's expense. Specific information regarding the examination will be provided to selected applicants.
- Applicants who are accepted must purchase student liability insurance coverage upon program enrollment.
- Applicants must provide evidence of Criminal Record Check and Pennsylvania Child Abuse History Clearance (Act 33-34) at the candidate's expense. Any child abuse record results in denial of admission to the medical assisting program. Any felony conviction within the past 10 years results in denial of admission to the medical assisting program. Any misdemeanor will be evaluated based on the nature of the offense, length of time since the offense, and explanatory letter/materials submitted by applicant. (Any punishment over one year indicates a felony according to federal sentencing guidelines.)

Competency Profile

This curriculum is designed to prepare students to:

- perform the administrative and clinical functions of the medical assistant with accuracy and skill
- perform the duties of the medical assistant within the legal and ethical framework of accepted patient care practice
- maintain a confidential and professional demeanor while performing the role of the medical assistant
- handle emergency patient situations if they arise

PROGRAM REQUIREMENTS (TOTAL CREDITS — 43)

General Education

BIO 107	Human Biology	3
PSY 160	General Psychology	3
		6

Major

MAS 100	Intro to Med. Assisting	4
MAS 105	Adminis. Procedures	2
MAS 110	Clinical Procedures	4
MAS 120	Practicum	3
		13

Other Required Courses

ALH 120	General Pharmacology	3
ALH 122	Medical Terminology	3
CPT 150	Microcomputer Concepts	3
OFT 130	Applied Med. Term.	3
OFT 150	Medical Billing Mgmt.	3
OFT 160	Medical Ins. Forms	3
OFT 250	Diagnostic Med. Coding	3
OFT 260	Procedural Med. Cod.	3
		24

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Fall Semester	
ALH 122	3
BIO 107	3
CPT 150	3
MAS 100	4
OFT 250	3
	16

Spring Semester	
ALH 120	3
MAS 105	2
MAS 110	4
OFT 130	3
OFT 160	3
OFT 260	3
	18

Summer Semester	
MAS 120	3
PSY 160	3
OFT 150	3
	9

Multimedia and Photography, AAS

MULTIMEDIA TECHNOLOGY OPTION

Division of Computer Technology/Business

The multimedia technology option is designed to prepare students for employment in commercial, industrial and educational settings as audiovisual technicians. Program graduates are prepared to provide for the operation of various multimedia equipment. Students will acquire production skills in the areas of instructional graphics, television, audio recording, digital photography and interactive multimedia. Under supervision, students complete an internship experience in which they apply theoretical knowledge to workplace situations. Students will have the opportunity to select either the Windows or the Macintosh area of concentration.

Career Opportunities

Career opportunities for multimedia technology graduates exist within in-house corporate audiovisual departments as well as in advertising agencies and sound or video production houses. A large number of individuals working in the media field are self-employed free-lancers working on a variety of creative and technical multimedia projects.

Competency Profile

This curriculum is designed to prepare students to:

- systematically design, produce, and analyze nonbroadcast media and messages such as computer presentation, video, multi-image, graphics/print, photography and interactive computer-based media
- apply knowledge of the theory, application, utilization and management of nonbroadcast communication technologies
- communicate effectively and appropriately using vocabulary indicative to the technology
- design and implement computer-based imagery by producing effective presentations
- apply communication principles to training and communications within organizations
- effectively function with associates as a member of a visual communications production team
- operate various types of standard as well as specialized media related equipment
- practice appropriate safety procedures inherent to the industry
- evaluate instructional media and organizational communication

PROGRAM REQUIREMENTS (TOTAL CREDITS — 64)

General Education

ENG 161	College Writing	3
ENG 162	Technical Commun.	
or		
ENG 163	Business Commun.	3
or		
ENG 164	Advanced Composition	
MED 110	Digital Presentation	3
SPC 155	Effective Speech	
or		3
SPC 156	Interpersonal Comm.	
Mathematics Elective		3
Social Science Elective		3
		18

Major

MED 103	Podcasting Basic	1
MED 105	Multimedia - Basics	3
MED 155	Intro to Multimedia	3
MED 156	Television Production I	3
MED 158	History of Cinema	3
MED 170	Digital Photography	3
MED 255	Public Relations	3
MED 256	Advertising	3
MED 257	Television Production II	3
MED 271	Adv. Digital Photography	3
MED 299	Internship	3
		31

Areas of Concentration

Apple Final Cut Studio for Macintosh

MED 180	Soundtrack Pro	3
MED 205	Final Cut Pro I	3
MED 206	DVD Studio Pro	3
MED 210	Final Cut Pro II	3
MED 212	Motion	3
		15

OR

Adobe Video Studio for Windows

MED 240	Audition	3
MED 250	Premiere Pro Basics	3
MED 260	Encore	3
MED 270	Premiere Pro II	3
MED 290	After Effects	3
		15

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
ENG 161	3	MED 110	3	ENG 162, 163 or 164	3	MED 210 or 270	3
MED 103	1	MED 156	3	MED 206 or 260	3	MED 212 or 290	3
MED 105	3	MED 158	3	MED 256	3	MED 271	3
MED 155	3	MED 205 or 250	3	MED 257	3	MED 299	3
MED 170	3	MED 255	3	Mathematics Elective	3	Social Science Elective	3
MED 180 or 240	3	SPC 155 or 156	3		**15**		**15**
	16		**18**				

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Eastern Westmoreland Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Multimedia and Photography, AAS

PHOTOGRAPHY OPTION

Division of Computer Technology/Business

The photography option prepares students to function in entry level positions within commercial, industrial and educational settings. Students will acquire production skills in state-of-the-art computer-based photographic imaging. Under supervision, students complete an internship experience in which they apply theoretical knowledge to workplace situations.

Career Opportunities

Career opportunities for photography graduates exist with advertising agencies, studios, service bureaus and corporate in-house photographic/advertising/public relations departments. A large portion of individuals working in this field are self-employed persons working on various creative and technical projects.

Competency Profile

This curriculum is designed to prepare students to:

- produce a portfolio which demonstrates the ability to implement theory with practical situations
- employ processes and methods to produce photo imagery significant to the job
- communicate effectively and appropriately using vocabulary indicative of the technology
- design and implement computer-based imagery by producing effective digital presentations
- demonstrate the ability to meet deadlines of required assigned tasks
- effectively function with associates as a member of a visual communications production team
- operate various types of standard as well as specialized photographically related equipment
- practice appropriate safety procedures inherent to the industry
- effectively network with art directors, designers, printers and others within the field

PROGRAM REQUIREMENTS (TOTAL CREDITS — 63)

General Education		
ENG 161	College Writing	3
ENG 162	Technical Commun.	
or		
ENG 163	Business Commun.	3
or		
ENG 164	Advanced Composition	
MED 110	Digital Presentation	3
SPC 155	Effective Speech	
or		3
SPC 156	Interpersonal Comm.	
Mathematics Elective		3
Social Science Elective		3
		18

Major		
MED 103	Podcasting Basics	1
MED 105	Multimedia Basics	3
MED 159	Basic Video Prod.	3
MED 160	Basic Photography	3
MED 161	Portrait Photography	3
MED 170	Digital Photography	3
MED 199	Internship	3
MED 200	Portfolio Development	3
MED 205	Final Cut Pro I	3
MED 206	DVD Sudio Pro	3
MED 255	Public Relations	3
MED 256	Advertising	3
MED 263	Photojournalism	3
MED 265	Color Photography	3
MED 266	Studio/Location Photog.	3
MED 271	Adv. Digital Photography	3
		46

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		Spring Semester		Fall Semester		Spring Semester	
ENG 161	3	ENG 162, 163 or 164	3	MED 205	3	MED 199	3
MED 103	1	MED 159	3	MED 256	3	MED 200	3
MED 105	3	MED 161	3	MED 265	3	MED 206	3
MED 110	3	MED 255	3	MED 271	3	MED 263	3
MED 160	3	SPC 155 or 156	3	Mathematics Elective	3	MED 266	3
MED 170	3		**15**	Social Science Elective	3		**15**
	16				**18**		

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Eastern Westmoreland Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Multimedia and Photography, Certificate

ADOBE VIDEO STUDIO OPTION

Division of Computer Technology/Business

The Adobe Video Studio certificate option provides students with an intensive experience in Windows-based video, audio and DVD digital software.

Career Opportunities

Graduates of the Adobe Video Studio certificate program can expect to find employment as computer support specialists in the field of multimedia as technicians and/or customer sales or service representatives.

Competency Profile

This curriculum is designed to prepare students to:

- organize and incorporate basic images in the creation of complex graphics
- produce motion animations and special video effects
- effectively utilize software to encode, author and burn DVDs
- identify, analyze, manipulate and fix common audio problems

PROGRAM REQUIREMENTS (TOTAL CREDITS — 16)

MED 103	Podcasting Basics	1
MED 240	Audition	3
MED 250	Premiere Pro I	3
MED 260	Encore	3
MED 270	Premiere Pro II	3
MED 290	After Effects	3
		16

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
MED 103	1	MED 260	3
MED 240	3	MED 270	3
MED 250	3	MED 290	3
	7		**9**

Multimedia and Photography, Certificate

APPLE FINAL CUT STUDIO OPTION

Division of Computer Technology/Business

The Apple Final Cut Studio certificate option provides students with an intensive experience in Apple Mac OS based video, audio and DVD digital software.

Career Opportunities

Graduates of the Apple Final Cut Studio certificate program can expect to find employment as computer support specialists in the field of multimedia as technicians and/or customer sales or service representatives.

Competency Profile

This curriculum is designed to prepare students to:

- organize and incorporate basic images in the creation of complex graphics
- produce motion animations and special video effects
- effectively utilize software to encode, author and burn DVDs
- identify, analyze, manipulate and fix common audio problems

PROGRAM REQUIREMENTS (TOTAL CREDITS — 16)

MED 103	Podcasting Basics	1
MED 180	Soundtrack Pro	3
MED 205	Final Cut Pro I	3
MED 206	DVD Studio Pro	3
MED 210	Final Cut Pro II	3
MED 212	Motion	3
		16

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
MED 103	1	MED 206	3
MED 180	3	MED 210	3
MED 205	3	MED 212	3
	7		**9**

Multimedia and Photography, Certificate

PHOTOGRAPHY OPTION

Division of Computer Technology/Business

The photography certificate option provides students with an intensive experience in traditional and digital photographic techniques and processes.

Career Opportunities

Graduates of the photography certificate program can expect to find employment as photographers, photographic technicians, customer sales or service representatives.

Competency Profile

This curriculum is designed to prepare students to:

- incorporate basic lighting manipulation skills in the creation of complex images
- produce a portfolio demonstrating the ability to handle various photographic situations
- effectively utilize the computer as a photographic tool

PROGRAM REQUIREMENTS (TOTAL CREDITS — 16)

GCT 100	Macintosh OS	1
MED 160	Basic Photography	3
MED 170	Digital Photography	3
MED 265	Color Photography	3
MED 266	Studio/Location Photo.	3
MED 271	Adv. Digital Photography	3
		16

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**		**Fall Semester**	
GCT 100	1	MED 265	3	MED 266	3
MED 160	3	MED 271	3		**3**
MED 170	3		**6**		
	7				

Multimedia and Photography, Certificate

VIDEO/TELEVISION OPTION

Division of Computer Technology/Business

The video/television certificate option provides students with an intensive experience in video and television production techniques and processes.

Career Opportunities

Graduates of the video/television certificate program can expect to find employment as entry level video camera and editing technicians, customer sales or service representatives.

Competency Profile

This curriculum is designed to prepare students to:

- utilize applicable production procedures to produce broadcast media
- operate linear/non-linear video related equipment
- design and implement commercial/industrial audio-video productions

PROGRAM REQUIREMENTS (TOTAL CREDITS — 16)

GCT 100	Macintosh OS	1
MED 156	Television Prod. I	3
MED 180	Soundtrack Pro I	3
MED 205	Final Cut Pro I	3
MED 210	Final Cut Pro II	3
MED 257	Television Prod. II	3
		16

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
GCT 100	1	MED 180	3
MED 156	3	MED 210	3
MED 205	3	MED 257	3
	7		**9**

Nursing, AAS and Diploma

Division of Health Professions/Biology

The nursing program is a two-level articulated curriculum. This unique nursing curriculum provides four options: (1) to exit after the first three semesters of Level I with a diploma in practical nursing; (2) to complete selected courses in both Level I and Level II to obtain the associate degree in nursing; and/or (3) to complete all the courses in Level I and Level II to obtain both the diploma in practical nursing as well as the associate degree in nursing; and (4) LPNs may seek advanced placement to the associate degree in nursing (ADN) program. Admission to the nursing program is selective and enrollment is limited by the clinical placement necessary to complete the nursing course requirements. **All applicants must meet specific criteria before being admitted to any of the program options.**

Admission Procedures to the Practical Nursing Program or Level I of the Associate Degree Nursing Program

Applicants to the Practical Nursing (PN) Program or Level I of the associate degree nursing program must complete and submit a WCCC Application for Admission and Allied Health Programs Application to the Admissions Office by **January 5** prior to the fall semester for which enrollment is being requested. The forms must be accompanied by official transcripts from all secondary schools attended, GED programs and any other formal educational programs attended beyond high school. It is the student's responsibility to obtain all high school and college transcripts. Those who apply must take a preadmission examination administered by WCCC. It is the student's responsibility to ensure that all of the required information to complete their application is in the Admissions Office no later than January 5. Applicants will be notified of eligibility to test and test dates once all required information has been submitted. Test scores will be ranked in descending order and candidates will be selected until available seats are filled.

Initial Admission Criteria for Applicants to the PN Program & Level I of the ADN Program

All applicants must be graduates of accredited secondary school programs, or high school seniors enrolled in accredited secondary school programs, or those who will hold a GED equivalency certificate prior to selection. Applicants are required to submit a final official high school transcript (which shows graduation date) and/or GED to complete the admission process. Admission to the nursing program requires completed academic work equal to a standard high school program with a minimum of 16 units, including four units of English, three units of social studies, two units of mathematics (one of which is algebra) and two units of science with a related laboratory or the equivalent. It is required that the two units of science be chemistry and biology. This high school course work must be completed with a minimum grade of "C" prior to taking the pre-admission examination. If high school algebra, chemistry and biology were not successfully completed, the pre-admission requirements can also be met by completing MTH 052, CHM 107 and BIO 107. **Science courses (BIO 171, BIO 172, and BIO 265) required in the nursing program must be completed with a C grade or better. For transfer purposes, science credits will only be accepted if completed within the past 10 years.** ***Note: Science courses (BIO 171, BIO 172 and BIO 265) are required in the nursing program, but are not a preprequisite for taking the pre-admission examination.***

All applicants must take the computerized placement test (Accuplacer) and have successfully completed any required developmental courses with a minimum grade of C by January 5 and prior to taking the pre-admission examination. Applicants who have completed credit courses must have a 2.5 GPA before admission testing. Only courses necessary to meet the nursing program requirements are considered when calculating the GPA. If the GPA is less than 2.5, one or more of these courses can be repeated in order to meet this requirement. Transfer courses are not calculated in the GPA.

The Pennsylvania State Board of Nursing reserves the right to deny a license to any candidate who has been convicted of any felonious act. Conviction includes a judgment, an admission of guilt or a plea of nolo contendere, probation without verdict, or incomplete ARD. Further, the Board shall not issue a license to any applicant who has been:

1. convicted of a felonious act prohibited by the act of April 14, 1972 (P.L. 233, No. 64), known as The Controlled Substance, Drug, Device and Cosmetic Act; or
2. convicted of a felony relating to a controlled substance in a court of law of the United States or any other state, territory or country unless:
   a. at least 10 years have elapsed from the date of the conviction;
   b. the applicant satisfactorily demonstrates to the board significant progress in personal rehabilitation since the conviction such that licensure should not create a substantial risk of further violations; and
   c. the applicant otherwise satisfies the qualifications contained in this act.

Admission Criteria required in the PN & Level I of the ADN Program

Admission to both nursing programs requires the applicant to submit information regarding criminal conviction and/or crimes of moral turpitude. Upon initial acceptance into the program, a criminal background check and child abuse history must be obtained at the applicant's expense. Individuals who are residents of Pennsylvania for less than one year must submit a current FBI clearance. These records must be submitted to the nursing program within two weeks of the date of notification of initial program acceptance. Admission is conditional pending receipt and evaluation of the background information to determine whether there is any conviction which may bar the student from admission to the nursing program.

Child Abuse Clearance

Any record results in denial of admission to the nursing program.

Criminal Background Check

Any felony conviction within the past 10 years results in denial of admission to the nursing program. Any misdemeanor will be evaluated based on the nature of the offense, length of time since the offense, and explanatory letter/materials submitted by applicant. (Any punishment over one year indicates a felony according to federal sentencing guidelines.)

Final Admission Criteria

Accepted applicants will be required to attend a mandatory group interview and information session as the final step in the admission process. Specific information regarding the following additional program requirements will be provided to applicants at that time. These include:

- Complete physical examination, lab studies, proof of immunizations, and urine drug screen
- Report of eye, hearing and dental examinations
- CPR-Basic Life Support for Health Care Providers Annual Certification required
- Evidence of a nurse liability insurance policy
- **All of the above must be submitted to the nursing program by June 15 or program acceptance will be withdrawn.**

Advanced Placement for Licensed Practical Nurses (LPNs) in the Associate Degree Nursing Program

Graduate practical nurses and licensed practical nurses may apply for advanced placement into the second year of the associate degree nursing program. Applicants who are graduate practical nurses or licensed practical nurses must hold a current Pennsylvania Practical Nursing license before being fully accepted into the ADN nursing program. LPNs who have not been in acute care clinical practice within the past five years must successfully complete a nurse refresher course before being accepted into the nursing program. Applicants who are practical nurses must complete and submit a WCCC New Student Information Form and Allied Health Programs Application to the Admissions Office by January 5 prior to the fall semester for which enrollment is anticipated.

Admission to the nursing program is selective and enrollment is limited by the clinical placement necessary to complete the nursing course requirements. Certain criteria must be met before testing. Those who apply must take the Nursing ACE I PN-RN Foundations of Nursing and the Nursing ACE I PN-RN Childbearing/Care of Child Examinations administered by WCCC. Eligible applicants will be notified of the fee and testing date.

Advanced Placement Admission Criteria for LPNs

Applicants must be graduates of accredited secondary school programs, or those who hold a GED equivalency certificate prior to selection. Admission to the nursing program requires completed academic work equal to a standard high school program with a minimum of 16 units, including four units of English, three units of social studies, two units of mathematics (one of which is algebra) and two units of science with a related laboratory or the equivalent. It is required that two units of science be chemistry and biology. If high school algebra, chemistry, and biology were not successfully completed with a C or better, the pre-admission requirements can also be met by completing MTH 052, CHM 107 and BIO 107.

LPNs seeking advanced placement must also take the computerized placement test (Accuplacer) and have successfully completed any required developmental courses and/or high school coursework with a minimum grade of C. Applicants who have completed credit courses must have a 2.0 GPA. Only courses necessary to meet the nursing program requirements are considered when calculating the GPA. If the GPA is less than 2.0, one or more of these courses can be repeated in order to meet this requirement. Transfer courses are not calculated in the GPA.

Proof of completion of the following via the high school transcript or enrollment in the equivalent course must be submitted before being eligible to test:

- High school transcripts and college transcripts (if applicable)
- High school algebra or MTH 052 with a letter grade of C or above
- High school biology or BIO 107 with a letter grade of C or above or Anatomy and Physiology as noted on LPN transcript
- High school chemistry or CHM 107 with a letter grade of C or above

All of the course requirements listed below must be recorded on your WCCC transcript before being eligible to test. Please note that the overall GPA must be 2.0.

- BIO 171 Anatomy and Physiology I
- BIO 172 Anatomy and Physiology II
- PSY 160 General Psychology
- PSY 161 Human Growth & Development
- ENG 161 College Writing

Science courses (BIO 171, BIO 172 and BIO 265) required in the nursing program must be completed with a C grade or better. For transfer purposes, science credits will only be accepted if completed within the past 10 years.

Other required information that must be on file before being eligible to test includes:
- LPN Program transcript
- Copy of current Pennsylvania LPN license
- Evidence of completion of a State Board approved IV therapy course within the past two years or have competency verified by current employer. LPNs currently practicing IV skills at their place of employment can show evidence by employer verification.

The Pennsylvania State Board of Nursing reserves the right to deny a license to any candidate who has been convicted of any felonious act. Conviction includes a judgment, an admission of guilt or a plea of nolo contendere, probation without verdict, or incomplete ARD. Further, the Board shall not issue a license to any applicant who has been:

1. convicted of a felonious act prohibited by the act of April 14, 1972 (P.L. 233, No. 64), known as The Controlled Substance, Drug, Device and Cosmetic Act; or
2. convicted of a felony relating to a controlled substance in a court of law of the United States or any other state, territory or country unless:
   a. at least 10 years have elapsed from the date of the conviction;
   b. the applicant satisfactorily demonstrates to the board significant progress in personal rehabilitation since the conviction such that licensure should not create a substantial risk of further violations; and
   c. the applicant otherwise satisfies the qualifications contained in this act.

Admission Criteria required for LPNs applying to the ADN Program

Admission to the nursing program requires the applicant to submit information regarding criminal conviction and/or crimes of moral turpitude. Upon initial acceptance into the program, a criminal record check and child abuse history must be obtained at the applicant's expense. Individuals who are residents of Pennsylvania for less than one year must submit a current FBI clearance. These records must be submitted to the nursing program within two weeks of the date of notification of initial program acceptance. Admission is conditional pending receipt and evaluation of a criminal background check to determine whether there is any conviction which may bar the student from admission to the nursing program.

Child Abuse Clearance

Any record results in denial of admission to the nursing program.

Criminal Background Check

Any felony conviction within the past 10 years results in denial of admission to the nursing program. Any misdemeanor will be evaluated based on the nature of the offense, length of time since the offense, and explanatory letter/materials submitted by applicant. (Any punishment over one year indicates a felony according to federal sentencing guidelines.)

Final Admission Criteria

Accepted applicants will be required to attend a mandatory group interview and information session as the final step in the admission process. Specific information regarding the following additional program requirements will be provided to applicants at that time. These include:
- Complete physical examination, lab studies, proof of immunizations, and urine drug screen
- Report of eye, hearing and dental examinations
- CPR Basic Life Support for Health Care Providers Annual Certification required
- Evidence of a nurse liability insurance policy
- **All of the above must be submitted to the nursing program by August 1 or program acceptance will be withdrawn.**

Competency Profile – (Practical Nursing)

This curriculum is designed to prepare the graduate to:
- apply caring constructs and knowledge from the physical, biological and behavioral sciences into the practice of practical nursing
- gather data and intervene as part of the nursing process according to an established plan of care to meet the basic human needs of individuals and their families
- perform technical aspects of practical nursing practice competently
- use basic therapeutic communication skills when providing nursing care
- perform incidental teaching within an established plan of care
- use effective communication skills when interacting with members of the health care team
- use caring behaviors in contacts with individuals and their families
- use a systematic approach to problem solving in the practice of practical nursing
- provide care within the legal and ethical solving in the practice of practical nursing
- provide care within the legal and ethical framework of licensed practical nursing practice recognizing the influence of political, economic, societal and cultural factors

- use learning opportunities for continued growth and development as a practical nurse
- manage the care of a group of individuals in the extended care setting under the supervision of a registered professional nurse

Competency Profile – (Associate Degree Nursing)

This curriculum is designed to prepare the graduate to:

- integrate caring constructs and research findings as well as knowledge from the physical, biological and behavioral sciences into the practice of nursing
- use the five steps of the nursing process to assess, diagnose, plan, implement and evaluate care to meet mutually identified needs of individuals and their families
- perform technical aspects of professional nursing practice competently
- use therapeutic communication skills when providing nursing care
- act to promote health and prevent disease as part of the comprehensive plan of care
- use effective communication skills when collaborating with multidisciplinary health team members
- use caring behaviors in contacts with individuals and their families
- think critically when making judgments and decisions related to professional nursing practice
- implement collaborative and independent nursing actions within the legal and ethical framework of registered professional nursing practice
- analyze political, economic, societal and cultural influences on professional nursing practice
- use resources to enhance self-development and professional growth
- manage the care for a group of individuals in a variety of settings

PROGRAM REQUIREMENTS (COMBINED PN/ADN PROGRAM CREDITS – 85)

General Education

BIO 171	Anatomy & Physiology I	4
CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 164	Advanced Composition	3
PSY 160	General Psychology	3
Mathematics Elective		3
		19

Major

NSG 110	Intro to Nsg. & Health Care	1
NSG 111	Foundations of Nsg. Care	8
NSG 120	Basic Care/Acute Set.	6
NSG 121	Basic Care/Selected Set.	5
NSG 122	Mental Health Concepts	1
NSG 130	PN Role/Extend. Care Setting*	4
NSG 131	Basic Care/ Chldbrng Fam.*	3
NSG 132	Basic Care/Infant, Child & Fam.*	3
NSG 210	Role of the ADN	2
NSG 220	Nsg. Care/Chldbrg Fam.	3
NSG 230	Nsg. Care/Infant, Child & Fam.	3
NSG 240	Psych./Mental Hlth. Nsg. Care	3
NSG 260	Adv. Care/Chronically Ill	3
NSG 270	Adv. Care/Acutely Ill	3
NSG 280	Manager of Nsg. Care	4
	(PN)	**31**
	(ADN)	**42**

Other Required Courses

BIO 172	Anatomy & Phsiology II	4
BIO 265	Microbiology	4
PSY 161	Human Growth & Dev.	3
SOC 155	Prin. of Sociology*	3
		14

*These courses are required for those students seeking the PN Diploma

RECOMMENDED SEQUENCE

Students enrolled in the nursing program must meet the course requirements specified in the program of study in effect at the time of graduation.

LEVEL I

Fall Semester	
BIO 171	4
ENG 161	3
NSG 110	1
NSG 111	8
PSY 160	3
	19

Spring Semester	
BIO 172	4
NSG 120	6
NSG 121	5
NSG 122	1
PSY 161	3
	19

Summer Semester	
* NSG 130	4
* NSG 131	3
* NSG 132	3
* SOC 155	3
	13

*These courses are required for students seeking the PN Diploma

Practical Nursing Diploma – Total 51 credits

LEVEL II

Fall Semester	
BIO 265	4
ENG 164	3
NSG 210	2
NSG 220	3
NSG 230	3
NSG 240	3
	18

Spring Semester	
CPT 150	3
NSG 260	3
NSG 270	3
NSG 280	4
Mathematics Elective	3
	16

Associate Degree in Nursing – Total 72 credits

Office Technology, AAS

OFFICE ADMINISTRATION OPTION

Division of Computer Technology/Business

This option is designed to prepare students for administrative positions in an office setting. Course work is presented in general education, office technology, business procedures and computer technology.

Career Opportunities

Graduates of the office administration option of the office technology AAS degree program can expect to find employment as administrative assistants, executive office managers, office managers, executive secretaries, receptionists, personnel clerks and word processors. Opportunities are available in large corporations, small business offices, insurance offices, nonprofit organizations, legal offices and government offices.

Competency Profile

This curriculum is designed to prepare students to:

- demonstrate skill in office coordination and administration
- develop advanced keyboarding, document processing, skills and information management skills
- develop competency in word processing, spreadsheet, database application and information management skills
- effectively integrate all Microsoft Office applications
- apply knowledge of the Windows operating system, the Internet and the Outlook personal information manager software
- develop oral, written and listening communication skills
- produce properly formatted business or legal correspondence with accuracy and speed
- transcribe from written and printed copy and voice-recorded dictation with accuracy and speed
- proofread and edit copy with a high degree of accuracy and speed
- use appropriate office procedures in records information management, telephone communications, electronic and hard-copy mail, meetings and conferences, travel arrangements and financial matters
- adapt to the changing nature of technology, equipment and procedures while retaining appropriate office practices, and work independently or in teams to demonstrate effective interpersonal and problem-solving skills, attitudes and work habits
- demonstrate knowledge of professional behavior and ethics

PROGRAM REQUIREMENTS (TOTAL CREDITS — 62)

General Education

CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 163	Business Commun.	3
SPC 155	Effective Speech	
or		3
SPC 156	Interpersonal Comm.	
Mathematics Elective		3
Social Science Elective		3
		18

Major

OFT 110	Document Processing I	3
OFT 120	Document Processing II	3
OFT 140	Office Procedures	3
OFT 185	PowerPoint	1
OFT 190	Word for Windows	3
OFT 195	Excel for Windows	3
OFT 196	Access for Windows	3
OFT 210	Office Technologies	3
OFT 220	Office Transcription	3
OFT 280	Office Management✦	3
		28

✦*capstone course*

Other Required Courses

ACC 105	Financial Rcrdkpg.	3
ACC 120	Quickbooks	1
BUS 160	Intro to Business	3
BUS 260	Small Business Mgmt.	3
CPT 201	Web Design/ Web Standards	3
CPT 259	User Support Oper.	3
		16

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
CPT 150	3	BUS 160	3	ACC 105	3	ACC 120	1
ENG 161	3	OFT 185	1	CPT 201	3	BUS 260	3
OFT 110	3	OFT 120	3	OFT 196	3	CPT 259	3
OFT 140	3	OFT 190	3	OFT 220	3	OFT 210	3
Mathematics Elective	3	OFT 195	3	Social Science Elective	3	OFT 280	3
	15	ENG 163	3		**15**	SPC 155 or 156	3
			16				**16**

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Eastern Westmoreland Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Office Technology, AAS

MEDICAL ADMINISTRATION OPTION

Division of Computer Technology/Business

This option combines specific course work in human biology, medical billing and medical coding. During the last semester, students apply their skills in a simulated work setting to develop technical competence. This curriculum is designed to prepare students for the Certified Coding Specialist - Physician's Office (CCS-P) national certification examination conducted by the American Health Information Management Association (AHIMA), the Certified Coding Assistant (CCA) offered by AHIMA for entry level inpatient coders, and Certified Medical Transcriptionist (CMT) professional certification exams. With experience, these individuals will be prepared to take the advanced level Certified Coding Specialists (CCS) exam available through AHIMA.

Career Opportunities

Graduates of the medical administration AAS degree program can expect to find employment as administrative assistants, medical office managers, medical records assistants, medical transcriptionists, medical secretaries, nursing services clerks, unit secretaries, executive secretaries, ward clerks, billing clerks, medical records technicians and medical coders, release of medical information technicians, cancer registrars, medical information abstactors, quality improvement assistants and heath information managers.

Competency Profile

This curriculum is designed to prepare students to:

- demonstrate skills in office coordination and administration
- analyze and record billing transactions and insurance claims using a computerized medical program
- apply correct coding techniques in billing and preparing insurance claims
- demonstrate competency in accounting skills and in processing financial records
- develop skills in keyboarding, word processing, written communication, medical terminology, medical billing, coding and reimbursement
- produce and compose formatted business correspondence with speed and accuracy
- proofread and edit copy with a high degree of speed and accuracy
- transcribe written and printed copy, and voice-recorded dictation
- use appropriate office procedures in public relations, records information management, telephone communication, electronic and hard copy mail, meetings and conferences, travel arrangements, routine financial matters, and principles of management for office efficiency
- develop skills in using the Internet, electronic mail and the Windows operating system
- demonstrate knowledge of professional behavior ethics

PROGRAM REQUIREMENTS (TOTAL CREDITS — 61)

General Education

CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 163	Business Commun.	3
SPC 155	Effective Speech	
or		3
SPC 156	Interpersonal Commun.	
Mathematics Elective		3
Social Science Elective		3
		18

Major

OFT 110	Document Processing I	3
OFT 120	Document Processing II	3
OFT 130	App. Med. Terminology	3
OFT 145	Medical Office Proced.	3
OFT 150	Med. Billing Mgmt.	3
OFT 151	Adv. Office Applica.	3
OFT 160	Med. Ins. Forms	3
OFT 230	Medical Transcription I	3
OFT 240	Medical Transcription II	3
OFT 250	Diag. Medical Coding	3
OFT 260	Procedural Med. Coding	3
OFT 285	Medical Office Mgmt.✦	3
		36

✦*capstone course*

Other Required Courses

ALH 122	Medical Terminology	3
BIO 107	Human Biology	3
CPT 120	Intro to the Internet	1
		7

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
ALH 122	3	ENG 163	3	OFT 145	3	OFT 240	3
BIO 107	3	OFT 120	3	OFT 160	3	OFT 250	3
CPT 120	1	OFT 130	3	OFT 230	3	OFT 260	3
CPT 150	3	OFT 150	3	Mathematics Elective	3	OFT 285	3
ENG 161	3	OFT 151	3	Social Science Elective	3	SPC 155 or 156	3
OFT 110	3		**15**		**15**		**15**
	16						

Office Technology, Diploma

MEDICAL TRANSCRIPTION

Division of Computer Technology/Business

The medical transcription diploma combines course work in human biology, medical terminology, transcription, office duties, keyboarding and word processing. During the last semester, students apply their skills in a simulated medical work setting to develop professional and technical competencies. This curriculum is designed to prepare students for the Certified Medical Transcriptionist (CMT) professional certification exam.

Career Opportunities

Graduates of the medical transcription diploma program can expect to find employment as administrative assistants, medical office managers, medical records assistants, medical transcriptionists, medical secretaries, nursing services clerks, unit secretaries, ward clerks and medical records technicians.

Competency Profile

This curriculum is designed to prepare students to:

- develop skills in keyboarding, word processing, medical terminology and medical transcription
- collect, prepare, file, store and retrieve information
- develop skills using the Internet, electronic mail and the Windows operating system
- produce formatted business correspondence with speed and accuracy
- transcribe various types of materials from tapes using microcomputers
- compose, proofread and edit copy with a high degree of accuracy and speed
- work independently or in teams to demonstrate effective interpersonal and problem-solving skills, attitudes and work habits

PROGRAM REQUIREMENTS (TOTAL CREDITS — 33)

General Education

CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 163	Business Commun.	3
Mathematics Elective		3
		12

Major

OFT 110	Document Processing I	3
OFT 120	Document Processing II	3
OFT 130	Applied Med. Termin.	3
OFT 230	Medical Transcription I	3
OFT 240	Medical Transcription II	3
		15

Other Required Courses

ALH 122	Medical Terminology	3
BIO 107	Human Biology	3
		6

RECOMMENDED SEQUENCE

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
ALH 122	3	BIO 107	3	OFT 230	3	OFT 240	3
CPT 150	3	ENG 163	3	Mathematics Elective	3		**3**
ENG 161	3	OFT 120	3		**6**		
OFT 110	3	OFT 130	3				
	12		**12**				

Office Technology, Diploma

OFFICE ADMINISTRATION

Division of Computer Technology/Business

The office administration diploma program offers course work in office administration, office procedures and computer applications.

Career Opportunities

Graduates of the office administration diploma program can expect to find employment as administrative assistants, office managers, executive secretaries, receptionists, personnel clerks and word processors. Opportunities are available in large corporations, small business offices, insurance offices, nonprofit organizations, legal offices and government offices.

Competency Profile

This curriculum is designed to prepare students to:

- key documents using touch-typing with a high degree of speed and accuracy
- operate an electronic calculator and understand filing principles and office procedures
- develop an understanding of the Windows operating system, electronic mail and the Internet
- achieve proficiency using Microsoft Office spreadsheet, word processing, database, presentation and desktop publishing software applications
- compose and edit business correspondence, reports and forms

PROGRAM REQUIREMENTS (TOTAL CREDITS — 31)

General Education		
CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 163	Business Commun.	3
Mathematics Elective		3
		12

Major		
OFT 110	Document Processing I	3
OFT 120	Document Processing II	3
OFT 140	Office Procedures	3
OFT 185	PowerPoint	1
OFT 190	Word for Windows	3
OFT 195	Excel for Windows	3
OFT 210	Office Technologies	3
		19

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester	
CPT 150	3
ENG 161	3
OFT 110	3
OFT 140	3
OFT 185	1
Mathematics Elective	3
	16

Spring Semester	
ENG 163	3
OFT 120	3
OFT 190	3
OFT 195	3
OFT 210	3
	15

Office Technology, Certificate

MEDICAL ADMINISTRATION

Division of Computer Technology/Business

The medical administration certificate program is designed for students who are interested in office administration and the medical field. Course work combines medical terminology, medical office procedures, keyboarding and word processing.

Career Opportunities

Graduates of the medical administration certificate can expect to find employment as administrative assistants, medical office managers, medical records assistants, medical secretaries, nursing services clerks, unit secretaries and medical records technicians.

Competency Profile

This curriculum is designed to prepare students to:

- collect, prepare, file, store and retrieve information
- develop skills in using the Internet, electronic mail and the Windows 2000 operating system
- use correct medical terminology in medical reports with an introduction to transcription
- type routine letters, correspondence, reports and forms using microcomputers

PROGRAM REQUIREMENTS (TOTAL CREDITS — 18)

ALH 122	Medical Terminology	3
OFT 110	Document Processing I	3
OFT 120	Document Processing II	3
OFT 130	Applied Medical Term.	3
OFT 145	Medical Office Proc.	3
OFT 230	Med. Transcription I	3
		18

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
ALH 122	3	OFT 120	3
OFT 110	3	OFT 130	3
	6	OFT 145	3
			9
		Fall Semester	
		OFT 230	3
			3

Office Technology, Certificate

MEDICAL CODING

Division of Computer Technology/Business

The medical coding certificate program combines knowledge of medical billing procedures and medical terminology to provide career skills in medical coding, billing and in the processing of insurance claims. This curriculum is designed to prepare students for the Certified Coding Specialist - Physician's Office (CCS-P) national certification examination conducted by the American Health Information Management Association (AHIMA), and the Certified Coding Assistant (CCA) offered by AHIMA for entry-level inpatient coders.

Career Opportunities

Graduates of the medical coding certificate can expect to find employment as medical office managers, medical records assistants, medical secretaries, nursing services clerks, billing clerks, medical records technicians, medical coding clerks and medical claims processors.

Competency Profile

This curriculum is designed to prepare students to:

- analyze and record billing transactions and insurance claims
- practice positive interpersonal and communication skills to effect routine office duties
- determine correct medical coding for medical procedures

PROGRAM REQUIREMENTS (TOTAL CREDITS — 21)

ALH 122	Medical Terminology	3
OFT 110	Document Processing I	3
OFT 130	Applied Medical Termin.	3
OFT 150	Medical Billing Mgmt.	3
OFT 160	Medical Ins. Forms	3
OFT 250	Diagnostic Med. Coding	3
OFT 260	Procedural Med. Coding	3
		21

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
ALH 122	3	OFT 130	3
OFT 110	3	OFT 160	3
OFT 150	3	OFT 250	3
	9	OFT 260	3
			12

Office Technology, Certificate

OFFICE ADMINISTRATION

Division of Computer Technology/Business

The office administration certificate is designed to provide a concentration in keyboarding and the Microsoft Office software products. Office applications covered include Word, Excel, Access, PowerPoint and Outlook.

Career Opportunities

Graduates of the office administrative certificate program can expect to find employment as administrative assistants, office managers, executive secretaries, receptionists, personnel clerks and word processors.

Competency Profile

This curriculum is designed to prepare students to:

- develop keyboarding, word processing, spreadsheet, database and presentation skills
- apply knowledge of the Windows operating system, electronic mail and the Internet
- effectively integrate all Microsoft Office applications

PROGRAM REQUIREMENTS (TOTAL CREDITS — 19)

CPT 150	Microcomputer Concepts	3
OFT 110	Document Processing I	3
OFT 120	Document Processing II	3
OFT 140	Office Procedures	3
OFT 185	PowerPoint	1
OFT 190	Word for Windows	3
OFT 195	Excel for Windows	3
		19

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
CPT 150	3	OFT 120	3
OFT 110	3	OFT 190	3
OFT 140	3	OFT 195	3
OFT 185	1		**9**
	10		

Radiology Technology, AAS

Division of Health Professions/Biology

The radiology technology program offers the academic preparation and clinical training needed for a career as a radiologic technologist (radiographer). While many radiographers provide services in a hospital setting, others provide services in stand-alone medical imaging centers, mobile radiography providers and private physician offices. Radiography is the gateway to most other specialized imaging modalities. With additional education through either employer based training or formal education, radiographers can progress to careers in Computed Tomography, Magnetic Resonance Imaging, Angiography, Mammography and Quality Management. The program includes clinical experience in various off campus locations that provide radiologic imaging services.

Students who complete the radiology technology program satisfactorily are eligible to apply to take the American Registry of Radiologic Technologists (ARRT) national certification exam.

Career Opportunities

Students completing this program will be qualified to enter the work world as an entry level radiographer. Radiographers may find employment opportunities with hospitals, stand-alone medical imaging centers, mobile imaging providers and private practice physicians.

Special Admission and Selection Criteria

Since this program requires a clinical placement, enrollment is selective and enrollment is limited by the clinical placement necessary to complete the radiology technology course requirements. Specific criteria for admission and selection are listed below.

- Applicants must be graduates of an accredited secondary school program, or high school seniors enrolled in an accredited secondary school program, or those who hold a GED equivalency certificate prior to selection.
- High school preparation should include one year each of biology, physics, chemistry, and algebra. If these courses were not taken in high school, BIO 107, PHY 107, CHM 107 and MTH 052 must be completed prior to testing for the radiology technology program and must be completed with a C grade or better (C minus grade not accepted.)
- College prerequisite coursework includes completion of BIO 171-Anatomy and Physiology I, with a minimum grade of C (C minus grade not accepted.)
- Applicants must complete and submit a WCCC Application for Admission and Allied Health Programs Application to the Admissions Office by **January 5** prior to the fall semester in which enrollment is anticipated. The forms must be accompanied by official transcripts from all secondary schools attended, GED programs, and any other formal education program attended beyond high school.
- Applicants must take the computerized placement test (Accuplacer) and have successfully completed any required developmental courses and/or high school course work with a minimum grade of C prior to taking the radiology technology admission examination. (C minus grade not accepted.) Also, applicants who have completed credit courses must have a 2.5 or better GPA prior to taking the radiology technology admission examination. Only courses necessary to meet the radiology technology program requirements are considered when calculating the GPA. If the GPA is less than 2.5, one or more of these courses can be repeated in order to meet this requirement before testing.
- Students who have attempted developmental courses in math or science three or more times will not be considered for admission.
- Applicants to the radiology program should review the ARRT rules and regulations and the ARRT standard of ethics prior to submitting their application. Information can be found on the ARRT website http://www.arrt.org.
- Those who apply must take a Radiology Technology Admissions Test administered by WCCC. Applicants will be notified of testing dates. Candidates will be selected until available seats are filled.
- Admission to the radiology technology program requires the applicant to submit information regarding criminal conviction and/or crimes of moral turpitude. Upon initial acceptance into the program, a criminal record check and child abuse history must be obtained at the applicant's expense. Individuals who are residents of Pennsylvania for less than one year must submit a current FBI clearance. These records must be submitted to the radiology program within two weeks of the date of notification of initial program acceptance. Admission is conditional pending receipt and evaluation of the background information to determine whether there is any conviction which may bar the student from admission to the radiology program.

Child Abuse Clearance

Any record results in denial of admission to the radiology program.

Criminal Record Check

Any felony conviction may result in denial of admission to the radiology technology program. Any misdemeanor will be individually evaluated. Conviction of a felonious act may result in the American Registry of Radiologic Technologist denying the applicant to sit for certification examination.

Urine Drug Screen

A positive drug screen may result in denial of admission to the radiology technology program or continuation in the radiology technology program.

Essential Cognitive, Physical and Behavior Functions for the Radiology Technology Program

Radiology technology students must be able to meet the following physical and mental abilities for successful completion of the radiology technology program:

- Must have the physical ability to move radiography equipment and manipulate the X-ray tube, which is located 70-80 inches above the floor
- Lift and/or support at a minimum 75 pounds in order to lift and carry X-ray accessories
- Have the ability to appropriately position patients for radiographic procedures and safely transfer patients who may weigh in excess of 300 pounds
- Must be able to push a portable X-ray machine for bedside radiography
- Ability to articulate clear verbal commands to the patient while the patient is being positioned for a procedure from a distance of 7-12 feet
- Have the ability to select and calculate proper X-ray exposure factors based on exam type and patient body habitus
- Must be able to manage stressful situations that relate to patient care, procedure and technical standards
- Must be able to evaluate radiographs for proper patient positioning, proper exposure factors, and other essential factors for the purpose of image quality control
- Have sight corrected, to observe patients from a distance of 5-20 feet, ability to read and adjust the X-ray control panel, and position patients correctly
- Have hearing corrected, with the ability to hear patients at a distance of 5-12 feet
- Have sufficient tactile ability in order to asses a patient's pulses, in addition to changes in a patient's physiologic status (i.e. changes in edema, skin temperature, etc.)
- Have the ability to smell odors that may signify a change in the physiologic status of a patient or an unsafe environmental condition
- Have the ability to read and comprehend written classroom material, medical documents, and institution procedures and policies
- Have the ability to write legibly in English in a style that is readable
- Must be able to accurately calculate in order to prepare medications, administer proper dosage of radiographic contrast material, and count pulse and respirations
- Must be able to move freely with full manual dexterity of both upper and lower extremities, have unrestricted movement of neck, shoulder, back and hips in order to assess, observe and perform emergency patient care, assist with all aspects of patient care, and be able to touch the floor for the removal of environmental hazards
- Must not be highly allergic to contrast media, latex products, and film processing chemicals (developer or fixer)
- Can not be dependent on any chemical or substance
- Have the ability to react appropriately and quickly in emergency situations
- Must be poised, well groomed and neat in appearance, discreet, tactful, diplomatic, professional, versatile, ethical and dependable
- Must have the ability to comprehend written and verbal instructions correctly in academic and clinical health care settings
- Must exhibit the capacity for reasoned judgment and calm in a health care environment
- Must not have physical or mental medical disorders that limit the ability to perform the duties of a radiology technology student
- Must be stable emotionally; this type of work involves life and death situations
- Must show honesty and integrity in all matters
- Enjoy working with people and patient contact

Students will be removed from the program if a health condition significantly limits the student from performing the routine functions of a radiology technology student and/or present a danger to the safety and health of patients.
After starting the radiology technology program, students will immediately notify the program director if any of these stated functions change. An evaluation may occur to determine if students are able to continue in the program.

Student Pregnancy

Voluntary Declaration

Students who become pregnant during their enrollment in the radiology technology program have the ability to decide whether or not to notify the program. Students who decide to notify the program must do so in writing to the program director. Students who do not voluntarily disclose their pregnancy are considered not pregnant.
Upon disclosure of pregnancy, students may:

- Remain in the program on a full-time basis without modification, as requested by the student
- Remain in the program on a full-time basis with modification of clinical assignments for the first trimester, as requested by the student
- Withdraw from the radiology technology program

Safety Practices for the Pregnant Radiation Worker

The American Society of Radiologic Technologist states, "Customary radiation safety practices for pregnant radiation workers shall be followed." The recommendation suggests referencing the following:

- 10 CFR Part 20.1208
- NRC Regulatory guides #8.2, 8.7, 8.13, 8.29, 8.34, 8.36, may be obtained from the NRC via the Public Document room at 1-800-397-4209 or via the Electronic Reading room ADAMS access system on their website at www.nrc.gov
- Pregnancy Disability Law, P.L. 95-555
- EEOC "Guidelines on sex discrimination and questions and answers"
- ICRP Publication #84. Pregnancy and Medical Radiation
- NCRP report #116

Note: The WCCC Library holds the above reference material

In compliance with NCR regulation 10 CFR Part 20.1208, "Dose to an Embryo/Fetus," requires licensees to "ensure that the dose to an embryo/fetus during the entire pregnancy, due to occupational exposure of a declared pregnant woman, does not exceed 0.5 rem (5 mSv)."

These exposure limits will apply until:

- The student gives birth
- The student revokes in writing to the program director her previously declared pregnancy
- The student informs the program director in writing that she is no longer pregnant

For students who formally declare their pregnancy

- Past dosimetry reports will be reviewed
- Pregnant students will be required to purchase a second film badge to be worn at waist level and under any radiation protective apparel
- Review of radiation safety practices for pregnant radiation workers
- Notification to clinical instructors of pregnancy
- If students choose, they have the opportunity for clinical assignments that do not include fluoroscopy and portable radiography during their first trimester
- Students will submit a statement from the physician stating that the student is cleared to continue on in the program
- Students will submit monthly statements from their physician to continue after the sixth month
- Review of student's monthly radiation dosimetry report

If the student makes the decision to withdraw from the radiology technology program, she may be reinstated the following year providing space is available and she continues to meet admission criteria of the radiology technology program.

Final Admission Criteria

Accepted applicants will be required to attend a mandatory information session as the final step in the admission process. Specific information regarding the following additional program requirements will be provided to applicants at that time. These include:

- Complete physical examination, lab studies, proof of immunizations, and urine drug screen
- CPR-Basic Life Support for Health Care Providers Annual Certification required
- Evidence of a student's liability insurance policy

All of the above must be submitted to the radiology program by June 15 or program acceptance will be withdrawn.

Competency Profile

This curriculum is designed to prepare students to:

- provide radiographic imaging services within a healthcare setting for a diverse patient population with an awareness of cultural diversity within the community
- use the principle of ALARA to minimize radiation exposure to the patient, one's self and the general population
- operate all radiologic imaging equipment safely, effectively and efficiently
- expose, process and evaluate all types of radiologic images
- apply computation skills to provide safe X-ray exposure to patients
- develop competency in assessing patients and devising ways to image compromised patients
- use computers and computerized equipment in the process of imaging and caring for patients
- provide imaging procedure patient education
- respect patient confidentiality and follow HIPPA guidelines
- practice radiography in a manner consistent with the ARRT ethical guidelines
- use effective communication skills when collaborating with multidisciplinary health team members
- develop interpersonal and communication skills to effectively interact with diverse population groups
- provide appropriate life-support measures for medical emergencies that may be encountered in a radiologic imaging setting
- use resources to enhance self-development and professional growth

Radiology Technology, AAS

(CONTINUED)

Division of Health Professions/Biology

Purpose

The radiology technology program provides students with a complete educational experience for those who wish to become health-care providers. The radiology technology program provides each student opportunities to learn and develop competence in patient care, communication skills, critical thinking, and technical skills that will permit the student to become a Diagnostic Radiologic Technologist. Integrated educational activities include lecture, laboratory activities, case studies, and hands-on clinical training.

Program Mission

Our mission is to provide students with a variety of educational activities and experiences that will prepare them with a level of expertise required to become competent and successful radiographers.

Program Goals

- to produce graduates prepared for entry into the health care field
- to produce graduates who have demonstrated the skills, professional values, and ethics to function as entry-level radiographers
- to produce graduates with the ability to think independently and value lifelong learning
- to produce graduates with the ability to effectively communicate with patients and other health care providers
- to produce graduates prepared for the American Registry of Radiologic Technologist examination

PROGRAM REQUIREMENTS (TOTAL CREDITS - 73)

General Education

CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 162	Technical Commun.	3
MTH 157	College Algebra	3
PSY 160	General Psychology	3
Humanities Elective		3
		18

Major

PHY 125	Physics for Radiology	3
RAD 110	Intro to Rad. Tech., Patient Care & Pharm.	3
RAD 120	Intro to Radiographic Procedures	3
RAD 130	Prin. of Radiologic Image Capture & Display	3
RAD 140	Radiographic Procedures II	3
RAD 150	Prin. of Radiologic Image Capture & Display II	3
RAD 155	Clinical Education I	3
RAD 210	Radiographic Procedures III	3
RAD 215	Clinical Education II	3
RAD 220	Radiation Protection & Biology	3
RAD 230	Rad. Imaging Equip., Anlyss, & Qlty Cont.	3
RAD 235	Clinical Education III	3
RAD 240	Radiographic Pathology	2
RAD 245	Clinical Education IV	3
RAD 250	Radiology Technology Capstone	3
RAD 255	Clinical Education V	3
		47

Other Required Courses

BIO 171	Anatomy & Physiology I	4
BIO 172	Anatomy & Physiology II	4
		8

RECOMMENDED SEQUENCE

Prerequisite	
BIO 171	4
	4
Fall Semester	
BIO 172	4
RAD 110	3
RAD 120	3
RAD 130	3
	13

Spring Semester	
ENG 161	3
PHY 125	3
RAD 140	3
RAD 150	3
RAD 155	3
	15
Summer Semester	
RAD 210	3
RAD 215	3
	6

Fall Semester	
MTH 157	3
RAD 220	3
RAD 230	3
RAD 235	3
Humanities Elective	3
	15

Spring Semester	
CPT 150	3
ENG 162	3
PSY 160	3
RAD 240	2
RAD 245	3
	14
Summer Semester	
RAD 250	3
RAD 255	3
	6

Restaurant/Culinary Management, AAS

Division of Technologies/Culinary Arts/Mathematics/Sciences

Restaurant/culinary management is one of seven majors comprising the college's hospitality program. This curriculum is designed to prepare students for various levels of management positions in the food service industry. In addition to classroom and food laboratory experience, students are required to complete an internship. Students are expected to be well groomed in compliance with standards of sanitation. Uniforms, decorative tips and a cutlery set are required for all lab classes. Students will also be required to provide medical proof of good physical health. This program is accredited by the Accrediting Commission of the American Culinary Federation Foundation.

The restaurant/culinary management associate degree program can be completed through an agreement with Nemacolin Woodlands Resort. For more information, contact the WCCC Admissions Office, 724-925-4077.

Career Opportunities

Graduates of the restaurant/culinary management program may accept positions as: general operations manager, catering manager, restaurant sales representative, restaurant manager, assistant restaurant manager, food service director, assistant food service director, food purchasing agent, party planner, dining room manager, sales and marketing manager, training and development specialist or customer service manager.

Competency Profile

This curriculum is designed to prepare students to:

- learn the procedures and responsibilities of departmental teams within a foodservice operation
- anticipate and satisfy diverse customer expectations
- research, prepare, season and cook according to recipe and local, regional and international traditions and diversity: soups, sauces, salads, meats, fish, poultry, game, vegetables and desserts using acceptable standards of sanitation and safety
- prepare quantity foods with emphasis on food cost controls as part of a production team
- research, evaluate, write and maintain menus; purchase orders; local, regional and international recipes; production schedules and inventories
- research and adhere to sound practices for sanitation and safety
- utilize the high-tech approach to maintain acceptable systems of operation
- research and analyze and apply marketing objectives and strategies to food service operations
- supervise a food service operation team utilizing personal and interpersonal skills

PROGRAM REQUIREMENTS (TOTAL CREDITS — 60/62)

General Education

CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 163	Business Commun.	3
Humanities Elective		3
Mathematics Elective		3
Social Science Elective		3
		18

Major

FSM 103	Intro. to Hospitality Ind.	3
FSM 105	Foods I	4
FSM 112	Quantity Foods	
or		
FSM 127	Service Techniques	
and		
FSM 157	Catering	4
FSM 113	Customer Service	3
FSM 117	Wait Staff Training	1
FSM 118	Sanitation	2
FSM 119	Bev./Dining Rm. Mgmt.	1
FSM 159	Nutrition	
or		3/4
BKP 243	Healthy Cooking Trends	
FSM 213	A la Carte Kitchen	4
FSM 215	Food Pur. & Menu Mgt.	3
FSM 218	Hospitality Marketing	3
FSM 219	Hospitality Internship	3
FSM 235	Supervision & Trng.	3
		37/38

Other Required Courses

Restricted Electives*	5/6
	5/6

***Restricted Electives**

These include courses having the following prefixes: BKP, CUL, DTT, FSM, HMT, TRV

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
ENG 161	3	CPT 150	3	FSM 213	4	FSM 235	3
FSM 103	3	ENG 163	3	FSM 215	3	FSM 218	3
FSM 105	4	FSM 112		Humanities Elective	3	FSM 219	3
FSM 117	1	or	4	Restricted Electives*	5/6	Social Science Elective	3
FSM 118	2	FSM 127 & FSM 157			**15/16**		**12**
FSM 119	1	FSM 113	3				
FSM 159 or BKP 243	3/4	Mathematics Elective	3				
	17/18		**16**				

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Central Westmoreland Career and Technology Center, Eastern Westmoreland Career and Technology Center, Northern Wesmoreland Career and Technology Center, Fayette County Area Vocational-Technical School, Lenape Area Vocational-Technical School, and Mon Valley Carer and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Surgical Technology, Diploma

Division of Health Professions/Biology

The surgical technology program prepares individuals to function as integral members of the surgical team by working closely with surgeons, anesthesiologists, registered nurses, and other surgical personnel to deliver patient care before, during, and after surgery. During surgical procedures, the surgical technologist may assist the surgeon by handling the instruments, supplies, and equipment necessary for the surgeon to perform the procedure. Throughout the procedure, scrub, circulating, and second assisting surgical technologists are responsible for maintaining the sterile field and assuring that all members of the surgical team adhere to aseptic technique.

Career Opportunities

The surgical technologist may find employment in hospitals, free standing surgical centers and clinics, and private physician's offices.

Special Admission and Selection Criteria

- Applicants must be graduates of accredited secondary school programs, or those who hold GED equivalency certificates prior to selection. Knowledge of high school biology, chemistry, and basic algebra is required. In the absence of this high school science and math background, BIO 107, CHM 107, and MTH 052 are considered equivalent coursework and must be completed prior to testing for the surgical technology program.

- Applicants must complete and submit a WCCC New Student Information Form and the Allied Health Programs Application to the Admissions Office by February 28 prior to the fall semester for which enrollment is anticipated to be guaranteed consideration.

- Applicants must also take the computerized placement test (Accuplacer) and have successfully completed any required developmental courses prior to program testing. All developmental courses and high school coursework must be completed with a minimum grade of C prior to program testing. (C minus grade not accepted.)

- Applicants who have completed credit courses must have a 2.0 GPA. Only courses necessary to meet the surgical technology program requirements are considered when calculating the GPA. If the GPA is less than 2.0, one or more of theses courses can be repeated in order to meet this requirement before testing.

- Since this program requires a clinical placement, enrollment is limited. Those who apply must take an admission test administered by WCCC. Applicants will be notified of testing dates. Test scores will be ranked in descending order. Candidates will be selected until all available seats are filled. Applicants who are selected will be scheduled for an interview with the division chair of Health Professions/Biology prior to program enrollment.

- Applicants who are accepted must have successfully completed CPR-Basic Life Support for Health Care Providers Annual Certification upon program enrollment.

- Applicants who are accepted must submit satisfactory results from pre-entrance physical, dental, hearing, and eye examinations obtained at the applicant's expense. Specific information regarding the examinations will be provided to selected applicants.

- Applicants who are accepted must purchase student liability insurance coverage upon program enrollment.

- Applicants must provide evidence of a criminal record check and Pennsylvania Child Abuse History Clearance at the candidate's expense. Any child abuse record results in denial of admission to the surgical technology program. Any felony conviction within the past 10 years results in denial of admission to the surgical technology program. Any misdemeanor will be evaluated based on the nature of the offense, length of time since the offense, and explanatory letters/materials submitted by the applicant (Any punishment over one year indicates a felony according to federal sentencing guidelines.)

Competency Profile

This curriculum is designed to prepare students to:

- Demonstrate knowledge of anatomy and physiology and the recognition of pathologic deviations

- Apply the principles of asepsis in a knowledgeable manner both in relation to the operative field and in the handling of all equipment and supplies necessary for the surgical procedure

- Identify emergency situations and institute corrective actions in a calm and efficient manner

- Provide a safe, efficient environment for the patient and the surgical team

Surgical Technology, Diploma

Division of Health Professions/Biology

- Perform within safe guidelines in the presence of the administration of anesthetic agents
- Demonstrate organizational skill and manual dexterity while performing as the scrub person
- Demonstrate a knowledge of and personal regard for the rights of the surgical patient
- Perform as a team member for the common good of the patient and take responsibility for personal actions
- Recognize the need to maintain ongoing competency in the area of surgical technology

PROGRAM REQUIREMENTS (TOTAL CREDITS — 49)

General Education		
BIO 171	Anatomy & Physiology I	4
SPC 156	Interpersonal Comm.	3
		7

Major		
SRG 100	Orientation to Surg. Tech.	3
SRG 101	Found. of Surg. Tech.	6
SRG 110	Surgical Technology I	5
SRG 111	Surgical Tech. Clinical I	4
SRG 120	Surgical Technology II	3
SRG 121	Surgical Tech. Clinical II	4
		25

Other Required Courses		
ALH 122	Medical Terminology	3
ALH 120	Pharmacology	3
BIO 172	Anatomy & Physiology II	4
BIO 265	Microbiology	4
CPT 150	Microcomputer Concepts	3
		17

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester	
ALH 122	3
BIO 171	4
CPT 150	3
SRG 100	3
	13

Spring Semester	
ALH 120	3
BIO 172	4
SRG 101	6
	13

Summer Semester	
BIO 265	4
SRG 110	5
SRG 111	4
	13

Fall Semester	
SPC 156	3
SRG 120	3
SRG 121	4
	10

Travel and Tourism, AAS

Division of Technologies/Culinary Arts/Mathematics/Sciences

Travel and tourism is one of seven majors comprising the college's hospitality program. This program is designed to prepare students for various positions within the tourism industry. The program emphasizes the development of knowledge and skills in areas essential to the industry such as social and economic tourism, ticketing, reservations, convention development, geography, business management, salesmanship and marketing.

In addition to classroom instruction, students will complete a supervised internship at a tourism agency.

Career Opportunities

Graduates will be prepared for entry level employment as travel agents, travel wholesalers, airline and hotel reservation agents, customer service representatives, tour guides, tourist promotion representatives and convention planners.

Competency Profile

This curriculum is designed to prepare students to:

- be aware of the importance of travel and tourism as a major industry in the local community and global environment
- demonstrate knowledge of world geography and cultures
- recognize the economic and social impact of travel and tourism to the local, regional and international economies and social structures
- demonstrate the ability to effectively use personal and remote communications in travel related businesses
- demonstrate problem solving skills in utilizing the principles of salesmanship and marketing
- analyze and solve management problems related to the travel and tourist industry
- recognize the impact of diversity as it relates to the host community and successful tourism
- maintain and analyze records, financial data and systems required in the travel industry
- utilize the latest computer technology to retrieve and manage information as it relates to travel and tourism

PROGRAM REQUIREMENTS (TOTAL CREDITS — 60)

General Education

CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 163	Business Commun.	3
Humanities Elective		3
Mathematics Elective		3
Social Science Elective		3
		18

Major

FSM 113	Customer Service	3
FSM 218	Hospitality Marketing	3
FSM 219	Hospitality Internship	3
FSM 235	Supervision & Training	3
HMT 161	Rec. & Entmnt. Mgmt.	3
HMT 170	Gaming & Casino Oper.	3
HMT 264	Convention/Meet. Mgmt.	3
TRV 170	Travel Career Develop.	3
TRV 171	Travel/Tourism Princ.	3
TRV 173	International Travel	3
TRV 273	Domestic Travel	3
TRV 274	Tour Planning & Sales	3
TRV 275	Travel Reservations	3
		39

Other Required Courses

ACC 105	Financial Recordkeeping	
or		3
ACC 165	Acctg. for Managers	
		3

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
CPT 150	3	ENG 163	3	ACC 105 or 165	3	FSM 218	3
ENG 161	3	HMT 170	3	HMT 264	3	FSM 219	3
FSM 113	3	TRV 173	3	SPC 155 or SPC 156	3	FSM 235	3
TRV 170	3	Mathematics Elective	3	TRV 274	3	HMT 161	3
TRV 171	3	Social Science Elective	3	TRV 275	3	TRV 273	3
	15		**15**		**15**		**15**

The recommended four-semester sequence of courses is advised for most students to improve chances of program completion. Students who have demonstrated previous academic success with approval may begin in the spring semester and complete the program in three semesters.

Turfgrass Management, AAS

Division of Technologies/Culinary Arts/Mathematics/Sciences

The turfgrass management program is designed to provide the depth of understanding and the skills required for entry level employment in golf courses, parks, athletic fields and other turfgrass related occupations. Graduates will be competent technicians able to work in the field of turfgrass maintenance/construction as well as other related fields.

Career Opportunities

Graduates of this program may be employed as golf course superintendent, sports field superintendent, maintenance technicians, construction technicians and groundskeepers.

Competency Profile

This curriculum is designed to prepare students to:

- use knowledge of plant and environment interactions in decision making in turfgrass management
- identify effective use and care of turfgrass
- recognize, prevent, control and treat pests of turfgrass
- use knowledge of plant growth and development and its interactions with environment in maintenance of turfgrass
- maintain and repair turfgrass maintenance equipment
- solve problems common in the turf industry by using knowledge of turfgrasses and their interactions with the environment

PROGRAM REQUIREMENTS (TOTAL CREDITS — 61)

General Education

CHM 107	Intro Concepts in Chem.	4
CPT 150	Microcomputer Concepts	3
ENG 161	College Writing	3
ENG 163	Business Commun.	3
Mathematics Elective		3
Social Science Elective		3
		19

Major

HOR 105	Intro to Horticulture	3
HOR 110	Intro to Turfgrass Mgmt.	3
HOR 115	Turfgrass Equip. Mech. I	3
HOR 116	Turfgrass Equip. Mech. II	3
HOR 125	Ornamental Shrubs	3
HOR 126	Ornamental Trees	3
HOR 150	Spec. Turfgrass Mgmt.	3
HOR 155	Soils and Soil Fertility	4
HOR 157	Insects/Diseases of Plants	4
HOR 199	Internship I	3
HOR 299	Internship II	3
		35

Other Required Courses

BIO 145	General Botany	4
BUS 158	Principles of Mgmt.	3
		7

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester		**Spring Semester**		**Fall Semester**		**Spring Semester**	
BIO 145	4	CHM 107	4	BUS 158	3	HOR 116	3
CPT 150	3	ENG 163	3	HOR 115	3	HOR 150	3
ENG 161	3	HOR 125	3	HOR 126	3	HOR 299	3
HOR 105	3	HOR 155	4	HOR 157	4	Social Science Elective	3
HOR 110	3	Mathematics Elective	3	HOR 199	3		**12**
	16		**17**		**16**		

Welding Engineering Technology, AAS

Division of Technologies/Culinary Arts/Mathematics/Sciences

Those planning careers in welding need manual dexterity, good eyesight and good eye-hand coordination. They should have the ability to concentrate on detailed work for long periods and be physically able to bend, stoop and work in awkward positions.

Successful completion of this program of study leads to the associate in applied science degree.

Career Opportunities

Recent graduates of the welding engineering technology program have obtained jobs with the following titles: welder, welding supervisor, nuclear service technician, QA/QC inspector, QA supervisor and technical sales representative.

Competency Profile

This curriculum is designed to prepare students to:

- apply technical knowledge needed in work situations which involve the welding of materials by effecting a technical level of skills necessary to handle welding and testing equipment associated with the various methods of welding, and selecting the appropriate tools and equipment to perform welding operations
- execute mechanical skills in an effective manner to perform a proper weld by using appropriate tools and equipment; and examine diagnose and execute a proper weld and manipulate welding tools and equipment in an effective and safe manner according to manufacturer's recommended procedures
- organize work and establish work patterns
- solve problems and seek appropriate guidance when confronted with a problematic situation
- communicate effectively, keep appropriate records and report information significant to the job
- demonstrate effective computer skills by using existing software and spreadsheet operations and programming the computer to assist in weld analysis and evaluation

PROGRAM REQUIREMENTS (TOTAL CREDITS — 62)

General Education

CHM 107	Intro Concepts in Chem. I	4
ENG 161	College Writing	3
ENG 162	Technical Commun.	
or		
ENG 163	Business Commun.	3
or		
ENG 164	Advanced Composition	
MTH 108	Math for the Tech. I	4
Computer Technology Elective		3
Social Science Elective		3
		20

Major

WEL 125	Welding I	4
WEL 135	Welding II	4
WEL 207	Advanced Welding I	4
WEL 208	Advanced Welding II	4
WEL 209	Weld. Equipment	3
WEL 220	Inspec. & Code Weld Spcs.	3
WEL 221	Metal Fabrication	4
WEL 224	Materials Evaluation	3
WEL 240	Intro to Auto. Mfg.	3
		32

Other Required Courses

DFT 110	Blueprint Reading	2
MET 105	Welding Metallurgy	4
PHY 107	Applied Physics	4
		10

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester	
DFT 110	2
ENG 161	3
MTH 108	4
WEL 125	4
WEL 220	3
	16

Spring Semester	
CHM 105	4
ENG 162, 163 or 164	3
WEL 135	4
Social Science Elective	3
	14

Fall Semester	
MET 105	4
PHY 107	4
WEL 207	4
Computer Elective	3
	15

Spring Semester	
WEL 208	4
WEL 209	3
WEL 224	3
WEL 221	4
WEL 240	3
	17

Tech Prep Option

Tech Prep articulation agreements exist between WCCC and Central Westmoreland Career and Technology Center, Eastern Westmoreland Career and Technology Center, Northern Wesmoreland Career and Technology Center, Connellsville Area Career and Technology Center, Fayette County Area Vocational-Technical School, Lenape Area Vocational-Technical School, and Westerm Area Career and Technology Center. Contact the WCCC Tech Prep Office for a list of courses articulated or enhanced courses.

Welding Engineering Technology, Certificate

Division of Technologies/Culinary Arts/Mathematics/Sciences

The welding certificate program is a short-term program option that provides students with entry level training for work in welding and flame cutting occupations. Welding 125 and Welding 135 emphasize skill development as well as applied theory and oxy-fuel welding/cutting and shield metal arc welding. Metallurgy and technical drafting courses round out the program of study by emphasizing metal properties, weldability and understanding detail and assembly work drawings. All credits earned can be applied toward the requirements of the degree program in welding engineering technology.

Competency Profile

This curriculum is designed to prepare students to:

- perform oxy-fuel welding/cutting by manipulating welding tools and equipment in an effective and safe manner
- perform shield metal arc welding by manipulating welding tools and equipment in an effective and safe manner

PROGRAM REQUIREMENTS (TOTAL CREDITS — 24)

DFT 110	Blueprint Reading	2
MET 105	Welding Metallurgy	4
WEL 125	Welding I	4
WEL 135	Welding II	4
WEL 209	Weld. Equipment Repair	3
WEL 220	Inspec. & Code Wld. Spcs.	3
WEL 221	Metal Fabrication	4
		24

RECOMMENDED SEQUENCE

Fall Semester		**Spring Semester**	
DFT 110	2	WEL 135	4
MET 105	4	WEL 209	3
WEL 125	4	WEL 221	4
WEL 220	3		**11**
	13		

COURSE DESCRIPTIONS

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COURSE DESCRIPTIONS

All academic courses offered by WCCC are listed below. Course numbers, titles and descriptions are WCCC designations. Courses numbered below 100 may not be used to meet degree requirements. The numbers at the far right of each course title indicate the number of lecture hours per week, lab hours per week and credits per semester.

Example: 3-0-3

3 — lecture hours per week
0 — lab hours per week
3 — course credits

All courses are identified alphabetically by a three-letter program code followed by a three-digit numerical course code. The first digit in the numerical code classifies the course as follows:

0 indicates a developmental course. Developmental courses carry no quality points and may not be used to meet degree requirements.

1 indicates a course which is normally required in the freshman year of study.

2 indicates a course which is normally required in the sophomore year of study.

Before each registration period, the college publishes a schedule of the courses that will be offered in the upcoming semester. Not all courses are offered each semester.

Students should note that many courses have prerequisites and/or corequisites which must be met before registration.

A prerequisite is a course that must be successfully completed prior to registration. A corequisite is a course that must either be successfully completed prior to registration or must be taken during the same semester.

ACC–ACCOUNTING

ACC 105—Financial Recordkeeping **3-0-3**
Introduces accounting and recordkeeping practices for a service enterprise and a merchandising concern. Emphasis is on analyzing and recording financial transactions and preparing financial statements. Not open to accounting and computer technology majors.

ACC 120—Quickbooks **1-0-1**
This course covers small business accounting using Quickbooks software. Topics include creating a chart of accounts, recording customer and vendor transactions and printing reports. In addition, students will set-up a new company and learn to export financial data to Excel.

ACC 155—Accounting I **3-0-3**
Introduces accounting principles and practices, primarily in the context of the sole proprietorship form of business. Emphasis is on analyzing and recording financial transactions and summarizing their effects through the preparation of financial statements. Both the merchandising and service enterprises are examined. Major topics include deferrals and accruals, inventories, plant and intangible assets, cash and receivables, and partnerships.

ACC 156—Accounting II **3-0-3**
Continuation of Accounting I. Topics covered include corporations, cash flow statement, financial statement analysis, managerial accounting concepts, job order costing, process costing, C-V-P analysis, budgetary planning and control, and incremental analysis for decision making.
Prerequisite: ACC 155

ACC 165—Accounting for Managers **3-0-3**
This course is designed to provide business and management majors with the ability to read, understand and use accounting information for making decisions. Topics covered include the business environment; cost concepts and allocation; costing systems; activity-based systems; cost behavior analysis; profit planning; variance analysis; performance measurement; short- and long-term decision making; quality management; and financial statement analysis.

ACC 219—Managerial Accounting **3-0-3**
Interpretation and use of accounting information by management for planning, controlling, decision making and performance evaluation. Topics covered include cost-volume-profit analysis; operational and financial budgeting; short-term decision-making; capital budgeting, performance evaluation and quantitative methods. Microcomputers will be utilized for problem solving.
Prerequisites: ACC 156

ACC 230—Integrated Accounting Software **3-0-3**
Uses a fully integrated accounting software system to set up, manipulate and maintain accounting records. Includes modules covering receivables, payables, inventory, payroll and the general ledger.
Prerequisite: ACC 155

ACC 234—Payroll & Spreadsheet Software **3-0-3**
A study of the skills required of a full-charge bookkeeper. Emphasis is on detailed preparation of a complete payroll system, including study of laws, regulations, tax return preparation, and fringe benefits. Extensive use of computerized payroll system. May lead to possible certification as a payroll professional. Students will also complete comprehensive computerized general ledger packages from initial recording through year-end procedures and financial statements.

ACC 250—Principles of Taxation **3-0-3**
Introduces federal taxation of the individual. Covers income inclusions and exclusions, deductions and losses, personal and business expenses, and property transactions. Completion of individual tax returns is an integral part of the course.
Prerequisites: ACC 155

ACC 251—Tax Preparation Software **3-0-3**
Primarily concerned with using tax software in the preparation of returns, this course covers both federal and state reporting for the taxation of individuals as introduced in ACC 250. Also covers tax reporting for partnerships, S and C corporations, and the computer preparation of returns for those entities.
Prerequisite: ACC 155

ACC 255—Intermediate Accounting I **3-0-3**
Examines the theory and concepts underlying the mechanics of accounting, including a review of the accounting process. Topics covered include: conceptual framework; income statement; balance sheet; cash flow statement; revenue recognition; cash and receivables; inventories-cost and estimation; plant and intangible assets-acquisition, use and retirement.
Prerequisite: ACC 156

ACC 256—Intermediate Accounting II 3-0-3
Continuation of Intermediate Accounting I. Topics covered include: debt financing; equity financing; long-term investments; leases; pensions; income taxes; contingencies; business segments; accounting changes and error analysis; earnings per share.
Prerequisite: ACC 156

ACC 260—Advanced Accounting Issues 3-0-3
This course refines and integrates those issues identified in various accounting courses into one comprehensive unit. Emphasis is shifted from "preparation" to "analysis." The core concept is to teach students to make decisions in uncertain and complex situations. Focus is on critical thinking, research skills and identifying answers to complex questions. Business values and ethics are a vital component of all decisions and are explored in this course. This capstone course encompasses all of the student outcomes found in each of the program's courses.
Prerequisite: ACC 255

ALH–ALLIED HEALTH

ALH 110—Basic Life Support for the Health Care Provider 1-0-1
This course in basic life support for the heath care provider provides the student with core materials for one- and two-rescuer adult cardiopulmonary resuscitation (CPR), foreign body airway obstruction management, pediatric resuscitation and automated external defibrillator. The targeted audience for this program is the healthcare provider, students entering the healthcare field, and also EMS personnel, physician assistants, doctors, dentists, nurses, and respiratory therapists who are required a credential (card) documenting successful completion of a CPR course. A written exam and skills testing is required for successful course completion. Tuition does not include textbook. Students receive certification from the American Heart Association. This course also includes background information about heart disease, risk factors, heart and lung function, current prevention advice and health living principles.

ALH 120—Pharmacology 3-0-3
Introduces the student to current concepts in pharmacology, including basic drug actions, indications and contraindications for drug therapy, toxicity, side effects and safe therapeutic ranges.

ALH 122—Medical Terminology 3-0-3
Studies definitions of medical terms. Greek and Latin word roots, prefixes and suffixes. Emphasis on application of terminology in specialized areas such as cardiology, urology, etc. Also includes discussion of human element, medical laws and equipment, and methods.

ARC–ARCHITECTURE

ARC 101—Building Materials and Estimating 3-0-3
Surveys building materials and characteristics used in the construction industry. Course also covers various construction techniques, principles, and cost estimating.

ARC 102—Contracts and Specifications 3-0-3
Covers the basic principles of written contracts and their format. Topics include specifications, language, techniques, and bidding and contract responsibilities. Study of building codes and building applications for various types of structures.
Prerequisite: ARC 105

ARC 105—Architectural Drafting I 2-4-4
Provides a practical approach as it relates to current common architectural drafting standard practices. The principle objectives are basic understanding of orthographic projection, size description and notation. National building codes UBC, SBC, and BOCA are introduced.

ARC 106—Architectural Drafting II 2-4-4
Provides students with more advanced drafting techniques and competencies by applying information about building components to draw detailed sets of architectural construction drawings and improve perception and awareness of problems related to design.
Prerequisite: ARC 105

ARC 119—Introduction to Surveying 2-2-3
Study includes linear measurements with tape; differential leveling and vertical control measurements; vertical angles with transit; closed traverse work utilizing bearing, azimuth and deflection methods; use of coordinate systems, computation of areas; stadia and topographic surveying. Bench mark and profile leveling for computation and data for application of cut and fill requirements in road or development construction will also be covered.
Prerequisite: MTH 108

ARC 199—Architectural Drafting and Design Internship 1-12-3
Students will obtain experience in the architectural drafting and design field through a combination of occupational instruction and on-the-job training. This course integrates classroom occupational study with a planned supervised practical work experience.
Prerequisite: Permission of instructor

ARC 210—Architectural AutoCAD I 2-4-4
Continues the study of architectural drawing, detailing and illustration through the assimilation of computer software. (AutoCAD, version 2006 will be used.)

ARC 211—Architectural AutoCAD II 2-4-4
A continuation of ARC 210. This course teaches advanced drawing and editing commands that may be used to create 2D architectural drawings. Ordinate dimensions, drawing/plotting scales, symbols/block usage, attributes, Xreferences and paper space applications are covered. (AutoCAD version 2006 will be used.)
Prerequisite: ARC 210

ARC 215—Architectural Presentation 2-4-4
Students will develop and deliver a presentation on a specific project approved by their instructor. Coordination of previous skills on independent projects utilizing manual drafting and computer graphics software for model building and design. (AutoCAD, version 2000)
Prerequisite: ARC 210

ARC 262—Piping, Structural Detailing and Electromechanical Drafting 2-4-4
AutoCAD application course that will include piping, structural detailing, electromechanical details, and working drawings. The student will experience more complicated problems in this course, and will coordinate previous skills for the graphical solutions. (AutoCAD, version 2000)
Prerequisite: ARC 210

ART–ART

ART 155—Introduction to Art 3-0-3
Surveys the history and stylistic development of the visual arts. The student is introduced to the process of formal, compositional analysis as it relates to content and historical context, as well as the changing role of art and artist in culture.

ART 158—American Art 3-0-3
This course introduces the student to the historical and cultural context of American painting, sculpture, architecture and decorative arts. In addition to the history and progression of art of the United States, students will examine the role of Pennsylvania artists have played in the history of American art.

ART 160—2-D Design 1-4-3
Two-dimensional visual art principles will be discovered through the components of problem-solving art applications, lectures and critiques. An important aspect of this course investigates the history and theory of basic design principles as the primary language of visual thinking.

ART 161—3-D Design 1-4-3
The basic elements and principles of design are implemented to create three-dimensional projects. Issues of volume, space, fabrication and construction with a variety of materials are applied to design problem-solving. Students explore three-dimensional space in relation to degree of depth from wall-relief to free-standing forms, and investigates the history and theory of spatial design principles.
Prerequisite: ART 160 or permission of instructor

ART 162—Drawing I **1-4-3**
As the most fundamental of art skills, students will learn to think visually and imaginatively. Drawing from observation is stressed through a sequence of basic rendering techniques, which include the study of spatial relationship structure, light and shadow, linear perspective, proportion and composition.

ART 163—Drawing II **1-4-3**
Students will learn to render more complex forms and conceive of more dynamic responses to a range of drawing issues. Through rendering the skeletal structure, as well as exploration of materials and techniques, students will learn the basic foundation of figure drawing, enriched by lectures on art historical depictions of the role of drawing in traditional and contemporary art.
Prerequisite: ART 162 or permission of instructor

ART 164—Color Concepts **1-4-3**
An introduction to the analysis and application of basic color and light theories, from early theoretical development with paint application, to more recent technological applications. Students develop a working knowledge of the expressive potential of color through numerous theoretical and compositional exercises, and are introduced to color physics, psychology and technology and its broad applications.

ART 165—Painting I **1-4-3**
As an introduction, oil paint is the medium of choice with which students will learn the basic properties of the painters' materials, including canvas stretching and preparation. The painters' craft is stressed with color mixing and application. Within a sequence of painting problems, students reinforce their visual vocabulary by painting from observation, to prime the beginner for more interpretive, imaginative subject matter.
Prerequisite: ART 162 or permission of instructor

ART 166—Painting II **1-4-3**
As an intermediate level course, Painting II will focus on pictorial space, form and individual exploration of ideas, and grounded in a fundamental understanding of the painting medium. The basics of the idea-development will be studied while refining and experimenting with techniques and materials. Students will learn how to execute a series as the first step to creating body of work. An exploration of historical and contemporary paintings and artists will be offered to enhance strategies for generating ideas.
Prerequisite: ART 165 or permission of instructor

ART 168—Beginning Watercolor Painting **1-4-3**
Designed for the art student; a basic understanding of drawing is helpful. This course will cover basic techniques of the paint always working in transparency. Subject matter will vary from still life through portraiture, figure painting and landscape. Depending on the time of year and weather conditions, painting on location outside is possible.
Prerequisite: ART 162

ART 170—Portfolio Development **1-4-3**
This course is designed to prepare a student's work for professional, competitive presentation. The goal is to review and develop a range of student projects into a self-promotional tool for career advancement that gives evidence of a solid range of visual skills presented in a professional manner. Resume and personal web page development, including mounting work, slide documentation, and portfolio organization will be covered to enhance and polish the overall presentation.

ART 181—Screen Printing Techniques **1-4-3**
This course provides a fundamental experience in color theory and color reproduction as it applies to screen printing. Students gain a working knowledge of basic principles and techniques for manual printing of flat substrates and textiles. Includes basic layout and design, scanning and computer generated artwork, prepress and production, trouble-shooting and waste material handling. Technical concerns and compatibility across Macintosh® and Windows® platforms as well as aesthetic and legal issues are covered.

ASL-AMERICAN SIGN LANGUAGE

ASL 101—American Sign Language I **3-0-3**
American Sign Language I is an introduction to the language used by members of the deaf community in the United States. This course focuses on conversation in signs, basic rules of grammar, and cultural aspects of the deaf community.

ASL 102—American Sign Language II **3-0-3**
Continuation of basic American Sign Language and culture study in which students further their ability to describe and discuss everyday matters and situations in a culturally appropriate manner. This course continues to focus on conversation in signs, basic rules of grammar, and cultural aspects of the deaf community. Additional vocabulary, more complex grammatical principles, and communicative strategies which assist the deaf listeners are presented.
Prerequisite: ASL 101

BIO–BIOLOGY

BIO 107—Human Biology **3-0-3**
Explores basic body structure and functions in terms of cellular interactions. The skeletal, muscular and nervous systems integumentary ...and selected disorders and their anatomical and physiological basis are topics for discussion. Also included are discussions of the circulatory, digestive, excretory, endocrine and reproductive systems. Biological terms and meanings of appropriate terms are emphasized along with the relationships between the various organ systems in health and disease.

BIO 120—Environmental Issues **3-0-3**
Assesses man's impact upon the natural world by reviewing a number of current environmental problems. Topics include ozone depletion, the greenhouse effect, habitat destruction and over population. Basic ecological concepts such as food chains, food webs, cycling of materials and energy flow through an ecosystem, and productivity will also be emphasized.

BIO 145—General Botany **3-2-4**
Studies the morphology, anatomy, physiology, life cycles, genetics, taxonomy, and evolution of representative non-vascular and vascular plants, with emphasis on the local flora.

BIO 155—General Biology I **3-2-4**
Introduces biology as a science that deals with the fundamental concepts and processes common to all living organisms. Topics considered include basic ecological principles, biological chemistry, cell structure and function, cellular respiration and photosynthesis.

BIO 156—General Biology II **3-2-4**
Sequel to General Biology I (BIO 155). Includes study of mitosis meiosis, Mendelian/neoMendelian/molecular genetics and deals with the diversity of organisms and their life processes.
Prerequisite: BIO 155

BIO 171—Anatomy and Physiology I **3-2-4**
Explores the basic body structure and functions in terms of cellular interactions. Discussion includes cells, tissues, Integumentary systems, skeletal system, muscular system, nervous system, the endocrine system, and selected disorders and their anatomical and physiological bases.
Prerequisites: CHM 107, CHM 155 or high school chemistry, ENG 080 or satisfactory Placement Test score

BIO 172—Anatomy and Physiology II **3-2-4**
Discusses cardiovascular, lymphatic, digestive, respiratory, urinary and reproductive systems. Also considers the interactions of the various body systems as well as cellular aspects of disease and defense.
Prerequisite: BIO 171

BIO 210—Zoology **3-2-4**
This course introduces students to the science of animals. It presents a survey of the animal kingdom with emphasis on diversity, evolutionary relationships, phylum characteristics, functional adaptation, and environmental interaction. This course is appropriate for science majors and nonscience majors alike.

BIO 265—Microbiology **3-2-4**
Deals with microbial organisms in general by surveying the history, methods and nature of microbiology. Bacteria and viruses are discussed in greater depth, particularly those that cause human disease. Also covered is the beneficial role played by microbes.
Prerequisites: BIO 155 or BIO 171 and CHM 107, CHM 155 or high school chemistry, ENG 080 or satisfactory Placement Test score

BKP–BAKING AND PASTRY

BKP 141—Baking I **2-4-4**
The student learns the fundamentals of quantity baking which involves preparation of yeast rolls, breads, pies, cakes, cookies, tarts and doughnuts. The properties of baking ingredients, use and care of commercial bake shop equipment, and storage and sanitation of baked products are studied. Uniforms, cutlery set and decorative tips required.

BKP 142—Baking II **1-4-3**
A second-level course focusing on the study and preparation of advanced breads, pastries, cakes and desserts. Laboratory preparation is coordinated with related studies in the classroom. Uniforms, cutlery set and decorative tips required.
Prerequisite: BKP 141

BKP 144—Baking III **1-4-3**
Provides the student with experience in the study and preparation of advanced pastries, cakes, pies and tortes. Students are also introduced to Artisian and decorative breads. Emphasis is placed on introducing the student to the most up-to-date products and technologies available. Uniforms, cutlery set and decorative tips required.
Prerequisite: BKP 142

BKP 242—Bakery/Deli Merchandising Techniques **1-4-3**
Study of baking techniques involving merchandising, salesmanship, product presentation, maintenance of product, product evaluation, labeling requirements and product identification. Uniforms are required.

BKP 243—Healthy Cooking Trends **2-4-4**
Allows students to research current nutritional recommendations and produce recipes which reflect sodium reduction, sugar substitution, fat replacement and other nutritional concerns. Nutritional labeling requirements are also investigated. Uniforms, cutlery set and decorative tips required.
Prerequisite: BKP 141 or FSM 105

BKP 245—Decorating Techniques **1-4-3**
Emphasizes the application of design principles to the art of decorating cakes, petit fours, centerpieces, confectionary and specialty pastry items. Uniforms, cutlery set and decorative tips required.

BKP 247—Specialty/Artistic Techniques **2-4-4**
Involves the student in the study and preparation of advanced hot and cold specialty dessert items. Emphasis is placed on both classical and contemporary dishes. Students are also provided with the knowledge and understanding of the utilization of artistic principles to effect chocolate and sugar work for consumption and display. Uniforms, cutlery set and decorative tips required.
Prerequisite: BKP 141

BKP 249—Advanced Decorating Techniques **1-4-3**
Emphasizes advanced decorating techniques. Design cakes using advanced techniques which are appropriate to the theme, occasion, and level of formality. Utilize principles of sanitation and safety in decorative work and design. Evaluate final products based on artistic design principles, uniformity and neatness. Develop a level of professional proficiency in advanced decorating techniques. Uniforms, cutlery set and decorative tips required.
Prerequisite: BKP 245

BUS–BUSINESS

BUS 120—Mathematics of Business **3-0-3**
Provides a basic knowledge and skill in the calculations necessary for a business career, including trade discounts, commissions, sales, payrolls, statistics, depreciation, interest, insurance, annuities, investment, credit and taxes.
Prerequisite: Placement Test

BUS 155—Personal Finance **3-0-3**
This course analyzes the personal and financial situations that confront individuals in our society today. Topics include: basic economics as it relates to individuals, budgeting and financial planning, renting versus owning a home, home financing options, purchasing versus leasing a vehicle, savings and borrowing techniques, liability and health insurance options, investment planning and strategies, retirement and estate planning, and the safety and security implications of purchasing items over the Internet.

BUS 158—Principles of Management **3-0-3**
Theory and principles of organization and management with an emphasis on the management processes of planning, organizing, leading, controlling, and the business functions, concepts, and applications related to the manager's role in a decision-making environment.

BUS 159—Business Finance **3-0-3**
Studies the basic financial management function of a firm. Topical coverage includes financial analysis and planning, working capital management, capital budgeting and selected topics.
Prerequisite: ACC 155 or ACC 165

BUS 160—Introduction to Business **3-0-3**
Survey of the structure of business, its principle activities and typical problems. The course is designed to provide the student with a working knowledge of business terminology. It covers such facets of business as ownership, management, marketing, purchasing, production, human resources, finance, accounting and government regulation.

BUS 190—Credit Management **3-0-3**
This course introduces the student to the concept of credit management as a primary contributor to worldwide economic growth as it makes goods and services available to consumers, businesses and governmental bodies. Topics covered include consumer credit, financing of retail and service credit transactions, real estate credit, credit investigation, credit reporting agencies, business credit, and collection management and control.

BUS 191—Financial Institutions **3-0-3**
This course provides a descriptive analysis of the management and operations of the financial institutions that serve to allocate capital in our economy. Institutional coverage will include commercial banks, thrift institutions, insurance companies, security firms and investment banks, finance companies, mutual funds and pension funds.

BUS 199—Internship **3-0-3**
A coordinated period of supervised work experience in organizations that will offer students the opportunity to acquire competence in their chosen area of specialization.
Prerequisite: Permission of instructor

BUS 205—Business Law I **3-0-3**
Basic principles of law applicable to business action including sources of law, adversary system, crimes, torts, negligence, strict liability, common law essentials of contract law, and basic general legal principles.

BUS 206—Business Law II **3-0-3**
Continuation of fundamental principles and practices as contained in Business Law I. The uniform commercial code and its application to contract law, proprietorships, corporations, agency and employment, real estate, and negotiable instruments.
Prerequisite: BUS 205

BUS 240—Techniques of Selling 3-0-3
Retail, wholesale and specialty selling with emphasis on mastering and applying the fundamentals of selling. Sales presentations are required.

BUS 241—Human Resource Management 3-0-3
Considers the role of human resource management as it relates to recruiting and selection procedures, equal employment opportunity, orientation and training. Emphasis is placed on performance appraisals, job evaluations and the motivation of employees.

BUS 244—Business Statistics 3-0-3
Principles of statistics as applied to business problems. Presentation and analysis of quantitative data in tabular forms; frequency distributions; measures of central tendency and dispersion; probability theory; sampling; tests of significance and regression analysis. It is advised that students have a background in algebra. Prerequisite: Placement Test

BUS 245—Principles of Marketing 3-0-3
Principles and functions of marketing. Topics include marketing research, target marketing, marketing segmentation, marketing-mix strategies. Special emphasis is placed on topics such as: product, pricing, distribution, and promotion decisions.

BUS 246—Risk Management 3-0-3
Portrays an overview of the field of insurance as an institution applying to business, society and government. Presents fundamentals of insurance contracts, such as property and casualty, life and health, and government.

BUS 249—Labor Relations 3-0-3
Relationship of management theory and the viewpoints of the behavioral sciences to problems of managing people in both union and non-union environments. Topics included are labor relations, contract negotiations, administration, collective bargaining and grievance arbitration.

BUS 258—Supervisory Management 3-0-3
Investigates techniques of leadership including the motivation and the creation of incentives for others to follow. The focus will be to improve decision making at work through increased knowledge pertaining to internal and external environmental forces. A new philosophy regarding the supervisor's role as to work assignments and control of employees is developed in this course.

BUS 259—Investments 3-0-3
Analysis of terminology, techniques, vehicles, and strategies for implementing investment goals. Risk-return trade-offs of investments will be presented in a portfolio context emphasizing diversification. Topics covered include: the investment environment, common stocks, fixed-income securities, speculation, mutual funds, real estate investments, tax shelters, saving and investing, savings and home ownership, and investment administration.

BUS 260—Small Business Management 3-0-3
Pertains to the organization and operation of small enterprises in all types of business: merchandising (both retailing and wholesaling), manufacturing and contract construction and the service trades. Topics include: organizational structure and staffing, equipment leasing, capital budgeting, financial leverage and taxation for the small business enterprise. Designed to aid individuals who are seriously considering going into their own business, as well as owners/managers who desire to increase their knowledge of modern small business operation.

BUS 261—International Business 3-0-3
Studies techniques for analyzing and understanding the entry into international business through exporting, licensing, or direct investment. Terminology and conceptual frame work to comprehend the balance of trade, balance of payments, foreign currency exchange, and the International Monetary System.

BUS 262—Effective Entrepreneurship 3-0-3
A practically oriented course focusing on the development of an entrepreneurial venture from idea generation to the opening and operation of a business. Topics include creativity, target market identification, marketing/financial planning, decision-making, recordkeeping, employee coaching and motivation, business valuation, management/control processes, and legal requirements. Designed for the person who desires to develop an entrepreneurial venture.

BUS 263—Small Business Finance 3-0-3
This course introduces the student to the use of financial controls in the administration of small businesses. Topics will include budgeting, profit analysis, development of cash flow statements, cost control, tax planning, economic order quantity analysis, and how to set up records for proper business control.

BUS 264—Small Business Operations 3-0-3
This course introduces the student to the procedures necessary to develop and refine a business plan and to integrate the plan into the start-up of a small business. Procedural operations covered will be the preparation of loan documents, applications for licenses and permits, a fictitious name application, and the development of a business support plan.

BUS 275—Organizational Behavior 3-0-3
This course is designed to examine behavior modeling in the work environment. Topics include: leadership, the motivation of employees, and the understanding of the organizational cultures. Students will gain an understanding of the behavioral parameters of organizations that compete in both domestic and international markets. Knowledge of workforce diversity will be emphasized as a key to improving workplace performance through effective pluralistic organizational work teams. Special emphasis will be placed on conflict in negotiations, communicating through influence, power and politics, and the management of organizational change.

BUS 285—Compensation Management 3-0-3
This course is designed to show students how to create fairness and equity when building a sound and equitable wage structure. Wage and salary administration is developed to enhance employee motivation. Job analysis, job evaluation and performance appraisal are presented as vehicles for advancing the understanding of fairness as it applies to both internal and external wage equity. Pay models are designed to be consistent with the legal framework as it applies to the job market. Competitiveness in performing a job is explored when considering a merit or seniority pay system.

CED–COOPERATIVE EDUCATION

CED 155—Cooperative Education Experience I 1-12-3
A work experience program designed to supplement formalized classroom study with supervised on-the-job learning experiences in college approved work locations. Academic credit may be earned for work experience if the student's job is related to his field of study or vocational goal.
Prerequisite: Completion of 12 hours of course work with a minimum grade point average of 2.0, and approval of the coordinator of job placement and cooperative education.

CED 255—Cooperative Education Experience II 1-12-3
A work experience program for students with clearly defined career objectives in which a work setting integrates academic study and employment activities. Academic credit may be earned under the supervision of a member of the college faculty.
Prerequisite: CED 155, completion of 30 hours of course work with a minimum grade point average of 2.5, and the approval of the coordinator of job placement and cooperative education.

CHM–CHEMISTRY

CHM 010—Preparatory Chemistry 3-0-3
Designed for people with little or no background in chemistry. This course will prepare the student for General Chemistry. Includes topics such as: how to study the discipline of chemistry, basic math concepts used in chemistry, and introductory chemical principles.

CHM 105—Technical Chemistry 3-2-4
Designed to meet the needs of the technically-oriented student. Basic atomic and molecular structure along with periodic relationships are considered. Emphasis is placed on properties, reactivities and reactions in relation to periodic properties. The approach is conceptual in nature with quantitative discussions of stoichiometry and equations. Laboratory exercises are practical applications of the lecture material.

CHM 107—Introductory Concepts in Chemistry I 3-2-4
A study of the basic concepts in chemistry is presented without the emphasis on the mathematical models that are found in the general chemistry courses. Basic atomic and molecular structure are explored with stress on periodic properties and chemical reactions. Stoichiometry, states of matter and solution chemistry are presented while applications of chemistry are emphasized.

CHM 108—Introductory Concepts in Chemistry II 3-2-4
A study of the basic concepts in organic and biochemistry is presented without the emphasis on the theoretical models that are found in the organic chemistry courses. Basic organic chemistry is presented with organic family relationships stressed.
Prerequisite: CHM 107

CHM 155—General Chemistry I 3-2-4
Studies the concepts of atomic structure, chemical periodicity, chemical bonding, molecular geometry, quantum chemistry and principles of chemical reactivity. Stoichiometry, thermodynamics and solution chemistry are presented using a quantitative approach. Gases and the structure of solids and liquids are also studied. High school chemistry or CHM 010 is suggested.

CHM 156—General Chemistry II 3-2-4
Uses chemical kinetics, thermodynamics and equilibrium to study the behavior of chemical systems. Electrochemical principles are used throughout the course. Ionic equilibria with emphasis on acid-base and solubility equilibria are a major consideration. A brief introduction to organic chemistry and appropriate applications are presented.
Prerequisite: CHM 155

CHM 199—Chemistry Internship I 1-12-3
A supervised work experience which serves to link the student's academic experience with practical applications of chemistry at an individual site.

CHM 200—Unit Operations 3-2-4
Designed to acquaint students with basic processes used in the chemical industry. Laboratory work involves the operation of pilot plants. Course topics include: process operations, piping and instrument diagrams, process equipment, process control, plant safety and analytical procedures associated with each pilot plant.

CHM 250—Organic Chemistry I 3-3-4
Presents organic chemistry by using concepts of chemical and physical properties, the reactions and reaction mechanisms to explore several classes of organic compounds. Kinetics studies are used where appropriate to verify the reaction mechanisms. Hydrocarbon families are used to introduce generalized organic reactions, with group reactions of other families presented as well.
Prerequisite: CHM 156

CHM 251—Organic Chemistry II 3-3-4
An extension of Organic Chemistry I. Concepts presented in this course include the relationship of spectroscopy to structure, and discussions of the reactions and properties of a variety of organic compounds. Additional material dealing with mechanisms of reactions is also presented.
Prerequisite: CHM 250

CHM 264—Chemistry for the Health Sciences 3-2-4
Presents chemical concepts that enhance the student's study of the physiological consideration of the human. Topics from general, organic and biological chemistry are presented. Consideration of factors that influence physiological reactions are stressed.
Prerequisite: One year of high school chemistry, CHM 107 or CHM 155

CHM 299—Chemistry Internship II 1-12-3
Requires the student to apply advanced chemical background to practical applications at an industrial site. The student will work in cooperation with a chemistry specialist who will direct the activities of the student to provide experience in the use of the instruments and functioning found in industry.

CIS–COMPUTER INFORMATION SECURITY

CIS 168—Principles of Information Security 3-0-3
This course is designed to introduce the student to the dynamic discipline of information security. Information security covers a broad range of areas from keeping networks secure from hackers to protecting one's own personal information. Areas of study will include ethical, moral, and legal issues; industry- and vendor-specific certifications; encryption and decryption methods and protocols; and the security system design life cycle. Up-to-the-minute developments in information security and network security will also be covered.

CIS 209—LAN Security 3-0-3
This course introduces students to user, hardware, and software security issues associated with local area networks. Topics presented will include user authentication, infrastructure security: devices, media, security topologies, intrusion detection; and software: file system, service packs, patches, directory services and databases.

CIS 210—Internet Security 3-0-3
This course will focus on the theories, terminologies, and principles of information and protection within a wide area network environment. Specific topics will include shopping cart transactions, third-party transactions, Web-hosting security breaches, and principles of data transfer. Students will gain an invaluable understanding of how data moves through the Internet and some measures to protect this data.

CIS 212—Computer Forensics 3-0-3
This course will examine the technical aspects of digital computer evidence: collection, identification, authentication, classification, and presentation. Specific methods for collecting computer related evidence will be covered. The dynamic process of conducting a successful forensics investigation using information as computer evidence is also addressed. Students will investigate software common to the forensics profession.

CIS 250—Network Intrusion Detection 3-0-3
This course will introduce the student to the vulnerabilities of specific types of network services that are the most hacked, including remote access services (RAS), e-mail, Web hosting, wireless networking, and file transfer protocol (FTP). Students will gain an appreciation of the major areas of vulnerabilities and the measures that can be taken to protect the system from outside intrusion.
Prerequisite: CPT 183

CIS 252—Digital Forensics 3-0-3
This course will examine the advanced technical aspects of digital computer evidence detection, collection, identification and preservation. Emphasis will be placed on specific tools and methods for extracting deleted or destroyed computer related evidence. Methods and practices that should be applied by the digital forensic professional are presented. The dynamic process of conducting a successful forensics investigation will be covered from inception to fruition.
Prerequisite: CPT 182

CIS 253—Communications Security 3-0-3
This capstone course will continue to examine security within a wide area network environment as well as reinforce competencies covered in lower level security courses. Students will find out how Websites and servers are vulnerable and they will explore the various ways network technologies can be subverted to allow abusers to steal data while in transit. Topics include: node and service authentication, address spoofing, hijacking, SYN floods, smurfing, sniffing, routing tricks, buffer overruns, and other exploitation of software development errors.
Prerequisite: CPT 238

CNC–COMPUTER NUMERICAL CONTROL

CNC 100—Introduction to Computer Numerical Control **2-2-3**
Designed to extend the skills of a machinist into modern CNC production techniques. Students will be taught manual part programming in Word Address Format. Emphasis will be placed on writing actual part programs for milling and lathe operations.

CNC 199—Computer Numerical Control Internship **1-12-3**
Students will obtain experience in the computer numerical control field through a combination of occupational instruction and on-the-job training. This course integrates classroom occupational study with a planned supervised practical work experience.
Prerequisite: Permission of instructor

CNC 200—Computer Numerical Control I **3-3-4**
Designed to provide the machinist student with a thorough understanding of MasterCAM software (version 9.1) for CNC part programming. Students will be introduced to MasterCAM's unique features that allow for the graphic development of part programs, tool path verification, and post processing of G Coded programs for both lathe and milling operations.
Prerequisite: CNC 100

CNC 201—Computer Numerical Control II **3-3-4**
Designed to provide the student with training and experience in programming, setting-up and machining operations of CNC lathes and CNC milling machines. Both the theory and practice of turning, facing, boring, drilling, threading, grooving, tapping, contouring and pocketing are covered in the course. SmartCAM software will be used to program the machine tools.
Prerequisite: CNC 200

CNC 260—Computer Aided Manufacturing-MasterCAM **2-4-4**
Provides students with a thorough understanding of computer-aided manufacturing (CAM). MasterCAM software will be used to teach students offline CAM programming.

COA–COMMERCIAL ART AND DESIGN

COA 120—Print Technology **3-0-3**
Overview of graphic communications and the printing technologies used to effectively relay visual information. Includes history and development, basic concepts of print communication, major printing processes, current digital imaging technology, and the impact of visual communication technology on society and culture. Technical concerns as well as aesthetic and legal aspects are covered.

COA 140—Advertising Design **3-0-3**
Introduction to contemporary illustration techniques and the techniques of noted illustrators. Enables students to develop a sense of illustrative image creation so that formal and technical elements, such as composition, color and background, can work together to create editorial or narrative impact. Focuses on trends and styles of advertising, with emphasis on working with an art director, deadlines, reproduction requirements and professional attitudes. Technical concerns as well as aesthetic and legal aspects are covered.
Prerequisites: ART 160, GCT 115 or permission of instructor

COA 142—Sign Graphics and Lettering **2-2-3**
Introduction to and exploration of signage design, principles and layouts. Develops and promotes creative problem-solving techniques for corporate and retail identity. Students incorporate design ideas, conceptual thinking, typographic elements, color usage and various imaging techniques. Assignments demonstrate visual solutions for realistic design problems, with emphasis on traditional as well as computer-based solutions. Technical concerns and compatibility across Macintosh® and Windows® platforms as well as aesthetic and legal aspects are covered.
Prerequisite: GCT 100 or permission of instructor

COA 150—Airbrush Techniques **2-2-3**
An introductory course that explores the basic principles of airbrush illustration. Provides a basic overview of the nature of light and color, modulation of values, basic geometric rendering and color illustration techniques. Course projects include custom lettering and illustration for T-shirts, signs and license plates. Students are encouraged to explore various applications of airbrush rendering. Technical concerns as well as aesthetic and legal aspects are covered.

COA 180—Production Procedures **2-2-3**
Introductory to intermediate study of traditional methods, materials and techniques for preparing camera ready art and print-based production. Major topics include layout and printing requirements, image assembly and pre-press, ink and paper, print production and post-production requirements. Technical concerns and compatibility across Macintosh® and Windows® platforms as well as aesthetic and legal aspects are covered.

COA 199—Internship in Commercial Art **1-12-3**
Students gain exposure and insight to the commercial arts/arts management fields through supervised and evaluated on-the-job experience. Students are able to select locations for their internships from instructor-approved sites which encompass Southwestern Pennsylvania- . Seminars are conducted weekly for the students to discuss their experiences. Transportation to off-campus locations is the responsibility of students.
Prerequisite: Permission of instructor and completion of 12 credits in major

COA 249—Portfolio Development **1-4-3**
This course is designed to prepare a student's work for professional, competitive presentation. The goal is to review and develop a range of student projects into a self-promotional tool for career advancement that gives evidence of a solid range of visual skills presented in a professional manner. Resume and personal web page development, including mounting work, slide documentation and portfolio organization will be covered to enhance and polish the overall presentation.

COA 256—Advertising **3-0-3**
A fundamental overview of advertising with an emphasis on researching, developing and implementing advertising campaigns. Class projects use electronic and print media to explore the many different facets of advertising. Technical concerns as well as aesthetic and legal issues are covered. This course is the same as MED 256-Advertising.

COA 285—Screen Printing Techniques **1-4-3**
This course provides a fundamental experience in color theory and color reproduction as it applies to screen printing. Students gain a working knowledge of basic principles and techniques for manual printing of flat substrates and textiles. Includes basic layout and design, scanning and computer generated artwork, prepress and production, trouble-shooting and waste material handling. Technical concerns and compatibility across Macintosh® and Windows® platforms as well as aesthetic and legal issues are covered.

CPT–COMPUTER TECHNOLOGY

CPT 110—Exploring Windows **1-0-1**
This course focuses on the Windows stand-alone operating environment and will enable students to be productive when using the system software. Topics include Windows as a graphical user interface, menus, dialog boxes, file management, maintenance and updating. Students are provided with hands-on experience by using computers in the microcomputer laboratory.

CPT 120—Introduction to the Internet **1-0-1**
An introduction to the Internet, its tools, and resources. This one-credit course is designed to provide a brief history of the development of the Internet, current definitions and explanations of the format of the network today. The course provides expanded instruction of the tools used to navigate the network and presents an overview of how to reach network resources.

CPT 122—Visio 1-0-1
This course will focus on creating visual drawings of information flow using Microsoft Visio software. Visio is a tool used to create diagrams to understand concepts more quickly and to communicate information more effectively in the business/technical environment. Topics include block diagrams, business process diagrams, charts and graphs, database diagrams, flowcharts, network diagrams, organization charts and project schedules.

CPT 143—IP Telephony 3-0-3
This course focuses on the design, installation, configuration and management of IP Telephony systems in the corporate data network environment. Students will learn the underlying theories and protocols of IP Telephony in addition to learning how to set-up, configure and administer an IP Telephony system.

CPT 145—Introduction to Computer Technology 3-0-3
This survey course provides students with an overview of computer technology topics–hardware, software, networking, Internet, data management, system design, ethical issues, mobile computing, programming, and careers in computer technology. It is designed as a first course for students pursuing a degree in the computer field.

CPT 146—Project Management 3-0-3
This course covers project management in a case-oriented problem-solving environment. The course is designed to provide the student with the knowledge and ability to administer multiple projects of varying complexity. The student will be exposed to a full scope of project management including resource allocation, task scheduling, and budgeting. Microsoft Project software will be used to provide project documentation and to automate project tasks.

CPT 150—Microcomputer Concepts 3-0-3
This course introduces students to the microcomputer system and software applications. Students are provided with hands-on experience using Windows, email, the Internet and Office components - Word and Excel.

CPT 151—Advanced Office Applications 3-0-3
This course provides word processing, spreadsheet, database and presentation instruction on microcomputers. Students use the Microsoft Office components: Word, Excel, Access and PowerPoint to create, edit, format and store documents, worksheets, databases and presentations.
Prerequisite: CPT 150

CPT 162—Visual BASIC.NET I 3-0-3
Students will create Windows applications using Visual BASIC.NET. Topics include: good program design, event-based programming, control structures, subroutines and function,

CPT 163—Java Programming I 3-0-3
An introduction to computer programming and the Java language. Topics presented include the logical flow of instructions, control structures and mathematical procedures. Emphasis is placed on the programming process, documentation and Java fundamentals.

CPT 165—COBOL Programming 3-0-3
Covers techniques needed to write computer programs using the COBOL programming language. Programming assignments will include defining file input, printer output, and processing disk files. Subroutines, control breaks, and update techniques are explored.

CPT 171—Telecommunications Fundamentals 5-0-5
This course focuses on the prerequisite knowledge required for individuals desiring to work in the field of telecommunications. The major topics covered in this class are the OSI reference model and how it is utilized in data communications, IP addressing and subnetting, and TCP/IP and how it functions with the network-layer protocols. Additionally the technologies associated with the various implementations of Ethernet (10/100/1000/10G versions) and network cabling (twister pair, fiber-optics, and wireless) will be covered. This course is the first course in a four-course sequence that is designed to prepare students for the Cisco Certified Network Administrator (CCNA) certification exam.

CPT 180—C++ Programming 3-0-3
This course introduces the student to programming using the C and C++ languages. Basic programming techniques, datatypes, flow of execution, functions, and data structures are among the topics that will be covered. Adherence to the ANSI Standards of C and C++ will be emphasized.

CPT 181—Introduction to Telecommunications 3-0-3
Covers telecommunications, its role in the firm and in informal systems and the planning and design of a communications system. Basic communication theory, components of data communication systems, error detection techniques, network protocols and line control procedures, communication carrier facilities and system planning considerations also covered.
Prerequisite: CPT 145 or CPT 150

CPT 182—Operating Systems 3-0-3
This course presents the fundamentals of Windows operating systems. Topics will include historical overview, installation, configuration, operation and troubleshooting.
Prerequisite: CPT 150

CPT 183—Local Area Networks 3-0-3
Designed to provide the concepts, components, terminology and topologies of Local Area Networks (LANs). Training issues will include network concepts, network essentials, maintenance and network administration. Efficient and effective network methodologies are presented to enhance network management fundamentals.

CPT 185—PowerPoint 1-0-1
This course focuses on Microsoft PowerPoint as a professional tool for the development of visual presentations. Topics include creating slide shows, visual elements, formats, printing, importing and delivering effective presentations. File management, editing and Web-based presentations are also covered. Students will be provided with extensive hands-on experience in a modern computing environment.

CPT 190—Word for Windows 3-0-3
Focuses on the Word software, ranging from the most basic word processing tasks to more complicated procedures. Topics include document entry, editing, formatting, cutting and pasting, fonts, glossaries, tables, file merging, graphics and frames. Emphasis will be placed on the topics of document templates, macros, and overall document design to create a more productive use of the package and professional looking documents.
Prerequisite: CPT 150

CPT 195—Excel for Windows 3-0-3
Covers how to build spreadsheets through typical business problems, generate sophisticated graphs and print professional looking reports. Students will learn how to use powerful statistical, mathematic and financial functions. The course will also introduce dynamic linking, macros, and import/exporting with other microcomputer application software.
Prerequisite: CPT 150

CPT 196—Access for Windows 3-0-3
Included as part of the professional Microsoft Office Suite, Microsoft Access is a relational database management system that allows the user to store and retrieve information about related records. This course will focus on a wide range of activities from the fundamentals of good database design and the DBMS terminology to the creation of database applications. Material covered will include: creating tables, forms, queries, reports, macros and modules to handle common business applications.
Corequisite: CPT 150

CPT 198—Fiber-Optic Technologies 3-0-3
This course is designed to provide the fundamentals of fiber optics and the light generating process used to transport digital information as used in data communications and network environments. Topics covered will include single-mode fiber, multi-mode fiber, fiber-optic communications, fiber-optic terminations, polishing, testing, trouble-shooting and measuring signal quality.

CPT 199—Internship 1-12-3
A coordinated period of supervised work experience in organizations that will offer students the opportunity to acquire competence in their chosen area of technical specialization.
Prerequisite: Permission of instructor

CPT 201—Web Design with Front Page 3-0-3
Use a World Wide Web development tool to create, view, edit and manage simple to complex Web sites. This course will focus on a range of activities from site design and navigation to publishing on the Internet. Topics covered include: creating a page and a site, formatting, links, tables, graphics, frames, forms, templates and components.

CPT 203—XHTML and JavaScript 3-0-3
This course introduces the student to the tools and techniques used to develop documents for transmission to external (Internet) and internal (Intranet) clients. Topics include Hyper Text Markup Language (syntax, formatting, forms, tables and linkages) and JavaScript (syntax, object methods and properties, data types, data selection and repetition structures, and Window, Form, Frame, and Document objects).

CPT 206—Server Programming 3-0-3
This course introduces students to Web application programming with scripting languages for server processing. Students create, test and debug Common Gateway Interface (CGI) scripts that may be implemented in HTML pages.
Prerequisite: CPT 203

CPT 207—Beginning XML 3-0-3
This course introduces the student to the Extensible Markup Language (XML), a leading new markup language for creating documents containing structured information. The course will cover .xml specifications and its many applications in Web development. Related .dtd, .css, .xsl, and .xslt files will also be introduced. The document Object Model will be explored along with its capability for extracting information from .xml files.
Prerequisite: CPT 203

CPT 208—Advanced Access 3-0-3
A continuation of CPT 196, this course focuses on application development using Microsoft Access. Topics include event-driven programming, enhancing applications through macros, menus and toolbars, and using Visual Basic for Access to customize application development.
Prerequisite: CPT 196

CPT 211—Routing Technologies 5-0-5
This course is designed to develop the skills students will need to design, build and maintain a small- to medium-sized network. This course will build upon the course material presented in Telecommunications Fundamentals (CPT 171). The course provides students with knowledge of router operations, and will cover the configuration of CISCO routers to operate independently in an enterprise environment. This is the second in a four-course sequence designed to prepare students for the Cisco Certified Network Associate (CCNA) professional certification exam.
Prerequisite: CPT 171

CPT 213—Java Programming II 3-0-3
This course builds on concepts presented in CPT 163, Java Programming I. Topics covered in this course include inheritance, polymorphism, and application development for graphical user interfaces (GUI). Students will use an integrated development environment (IDE) to create applets.
Prerequisite: CPT 163

CPT 214—Wireless Communication 3-0-3
This course introduces the student to the principles of wireless communication, the line-of-sight microwave, line-of-sight laser, and line-of-sight propagation techniques. Specific topics will cover satellite uplink and downlink systems, non line-of-sight communications methods in addition to various line-of-sight technologies. The communications methods addressed in this course will focus on the direct interface with local and wide area networking technologies.
Prerequisite: CPT 183

CPT 219—Fiber Optic Analysis and Design 3-0-3
This course is designed to provide training with the tools needed to understand the design installation and splicing specialization of Fiber Optic Networks. Training is focused on network overview, fiber properties, hanging and routing of hardware, the resolution of environment factors and planning to address optical network management issues. Fusion of: ribbon, discrete, pigtail and mid-span cables. Mechanical splicing, inner duct, splice trays and other hardware and devices will be used to ensure a wide base of installation knowledge. Participants will work "hands-on" during labs with a variety of materials to advance their fiber manipulation skills. This course is designed as a preparation for the Fiber Optic Specialist/Testing certification.
Prerequisite: CPT 198

CPT 222—Fiber Optic Testing and Troubleshooting 3-0-3
This course is designed to provide training in the testing and troubleshooting of fiber optic systems. Classroom lecture, demonstration and repetitive testing with emphasis on analysis with interpretation of actual instrument derived test results is the method of instruction. Topics covered will include repetitive testing of both single-mode fiber, multi-mode fiber, repetitive insertion loss tests on multiple links, repetitive testing with Optical Time Domain Reflectometry. Emphasis will be placed on testing and troubleshooting, measuring signal quality, and reflectance testing. This course is designed to prepare for the fiber optic specialist/testing certification.

CPT 230—Integrated Office Applications 3-0-3
This course demonstrates the integration of the Microsoft Office Professional suite components. Using a case study approach, students will implement advanced features for problem analysis and problem solution. Students entering the course are expected to have mastered basic skills in Word, Excel, PowerPoint and Access. Outlook is introduced.
Prerequisite: CPT 151 or CPT 185, CPT 190, CPT 195 and CPT 196

CPT 235—Database Management Systems 3-0-3
Explore the theory behind data management through the use of a database management system, stressing the importance of good database design. Topics include controlling redundancy, entity-relationship diagrams, normalization and an introduction to SQL.
Prerequisite: CPT 151 or CPT 196

CPT 238—Wide Area Networking 3-0-3
This course is designed to provide the student with an overview of the technology and practices in wide area networking. Included is instruction in the installation, configuration and troubleshooting of internetworking hardware and software.
Prerequisite: CPT 183

CPT 242—Visual BASIC.NET II 3-0-3
Covers techniques currently needed to write advanced Windows programs using Visual BASIC.NET. Advanced programming projects will include error handling, graphics, procedures, multiple forms, processing with files, object linking and embedding (OLE), dynamic data exchange (DDE), and how to control and interact with most PC databases.
Prerequisite: CPT 162

CPT 247—Visual C++ 3-0-3
This course presents object oriented Windows programming using Visual C++ and the Microsoft Foundation class (MFC). Students will learn the basic structure of Windows programs and develop working GUI applications. The course will include the use of Visual Studio's automated tools, AppWizard and ClassWizard, as well as instruction on how objects interact.
Prerequisite: CPT 180

CPT 248—PC Hardware 3-0-3
This course focuses on the fundamentals of the components in a personal computer. Topics will include motherboards, processors, memory, drives, expansion boards and selected peripheral devices.

CPT 249—PC Troubleshooting 3-0-3
This course covers the installation, configuration, operation, and troubleshooting of personal computers using advanced hardware and software concepts and the utilization of information resources found on the Internet. Emphasis will be placed on advanced troubleshooting techniques for the repair and maintenance of personal computers.
Prerequisite: CPT 182 and CPT 248

CPT 256—Linux Desktop 3-0-3
This course is designed as an introduction to the Linux operating system. Course content will include the installation, upgrading, configuration, and troubleshooting of various commercial Linux distributions. Popular Linux utilities and applications will be used. Emphasis will be placed on the use of Linux as a networked application server and Web server.
Prerequisite: CPT 182

CPT 257—Switching Technologies 5-0-5
This course focuses on the basics of switching and switch configuration. The major topics covered in this class are switching technologies; configuring switches for Ethernet networks; configuring VLANs, advanced LAN and LAN switched design as well as advanced coverage on router configuration. Students will also be introduced to Variable Length Subnet Masking (VLSM) and various intermediate routing protocols including Ripv2, single-area OSPF and EIGRP. This course is the third course in a four-course series offered in partnership with CISCO Systems Inc.
Prerequisite: CPT 211

CPT 259—User Support Operations 3-0-3
This is an introductory course that provides those seeking to become help desk professionals with skills ranging from customer service, troubleshooting computer problems, operation of the help desk itself, training computer users and facilities management. It is expected that students have a prior knowledge of basic computer concepts, word processing, spreadsheet and database applications and Internet experience.
Prerequisites: CPT 151, CPT 195 and CPT 196

CPT 261—Windows Desktop Client 3-0-3
This course is designed to provide the student with the knowledge to install, configure, operate, navigate, and administer a Windows desktop client. This is an introductory course designed to provide an overview of networking concepts and how they are implemented in a Windows networking environment. Workstation installation, configuration, operation and maintenance will be covered.

CPT 262—Windows Server 3-0-3
This course is designed to provide the student with the knowledge and ability to administer a Windows client/server network. Students will learn how to design, install, maintain and troubleshoot the services and protocols found in Windows Server.
Prerequisite: CPT 183

CPT 263—Windows Network Infrastructure 3-0-3
This course covers the installation, configuration, and troubleshooting of a Windows network infrastructure. Topics include: DNS, DHCP, remote access, network protocols, WINS and IP routing.
Prerequisite: CPT 183 and CPT 262

CPT 264—Windows Active Directory 3-0-3
This course covers the installation, configuration and troubleshooting of the Windows Active Directory. Topics include change and configuration management, active directory optimization and network security.
Prerequisite: CPT 183 and CPT 262

CPT 271—Oracle SQL I 3-0-3
This course will provide students with an introduction to the SQL query language as it is used in an Oracle database environment. The course content will include creating and modifying queries, the design of effective queries, and query programming
Prerequisite: CPT 196 or CPT 235

CPT 274—A+ Certification Review 2-0-2
Review of testable computer hardware and software material needed to prepare for the Hardware and Software A+ Service Technician Certification exams.
Corequisites: CPT 249

CPT 277—Electronic Commerce Technology 3-0-3
This course focuses on analyzing the impact of emerging trends and technologies in electronic commerce. Specific topics are selected by faculty to reflect the current state-of-the-art in the field.

CPT 281—Oracle SQL II 3-0-3
This course is a continuation of the concepts presented in CPT 271. This course will provide hands-on exercises in more complex query construction and introduce PL/SQL. Topics covered include: creating views, indexes, formatting output, PL/SQL declarations, if statements, looping and cursors.
Prerequisite: CPT 271

CPT 286—System Analysis and Design 3-0-3
System Analysis and Design introduces the student to the tasks performed by systems analysts and the process that is used to complete successful projects. This course presents the life cycle of a computer system, the tools used by the systems analyst in each phase, and the role of the systems analyst within that life cycle. Stressing the importance of functioning as a member of a team, the course presents techniques to successfully manage a project, as well as communication with other members of the team and the organization. It serves as a capstone course, applying all the knowledge the student has gained into a final cohesive project.
Prerequisite: CPT 235

CPT 291—WAN Technologies 5-0-5
This course focuses on the theory and design of wide area networks (WANs). The major topics covered in this course are WAN theory and design; WAN technologies such as PPP, Frame Relay and ISDN; and network troubleshooting as well as coverage in NAT/PAT, and DHCP router configuration. This is the final course offered in partnership with Cisco Systems Inc. Students successfully taking the four-course series offered through this partnership should be well prepared to pass the CCNA exam, which is a highly regarded certification in the telecommunications industry.
Prerequisite: CPT 257

CPT 293—CCNA Exam Prep 1-0-1
This course will highlight the material presented in the four CISCO Telecommunications courses. The course will review the CCNA Exam requirements and prepare students for the exam.
Prerequisite: CPT 291

CRJ–CRIMINAL JUSTICE

CRJ 155—Introduction to Criminal Justice 3-0-3
History, development and philosophy of law enforcement in a democratic society; introduction to agencies of criminal justice; orientation to criminal justice as a career field.

CRJ 160—Criminal Law I 3-0-3
Elements of substantive criminal law relevant to attaining the preservation and protection of life and property; structure, definitions and most applicable pertinent sections of the criminal statutes.

CRJ 162—Police Administration I 3-0-3
Analysis of organizational structure, administration and management practices and operating procedures of law enforcement agencies with emphasis on line and auxiliary service activities.
Prerequisite: CRJ 155

CRJ 163—Criminal Evidence 3-0-3
Principles, duties and mechanics of criminal procedures as applied to important areas of arrest, force, and search and seizure.

CRJ 180—Corrections 3-0-3
Studies special problems and practices in the correctional system. This course includes field trips to institutions and guest lecturers from the field of corrections.

CRJ 195—Introduction to Private Security 3-0-3
A critical look at the nature and the operational techniques of private security. This course will analyze the history, functions and various categories within the private security field. Policies and procedures will be discussed as well as loss prevention measures within the retail business.

CRJ 220—Research Methods in Criminal Justice 3-0-3
An introduction to basic criminal justice methods of research and analysis. Examines various research techniques, data collection strategies, and analytical tools. Research procedures and statistical techniques are introduced.
Prerequisite: CPT 150

CRJ 225—Criminology of Terrorism 3-0-3
Discusses the criminology of terrorism, such as the typologies of terrorism, tactics of terrorism, terroristic profiles and basic organizational structures of terrorist groups. Explores religion and conflict with various cultures relating to terrorism. Explains historical and modern day terrorism and its effects throughout the world.

CRJ 255—Juvenile Delinquency 3-0-3
Historical and current theories of juvenile delinquency treatment and control. Juvenile court operations.

CRJ 261—Criminal Law II 3-0-3
Covers jurisdictional areas of, and procedures used in local, state and federal trial and appellate courts. Includes the functions of grand and special juries; bail procedures; trial and sentencing procedures and the related role of law enforcement agencies. Comparisons are made with the legal systems of foreign countries.
Prerequisite: CRJ 160

CRJ 262—Crime Prevention 3-0-3
Analysis of the nature and extent of crime in the United States and of problems and techniques in preventing crime. Emphasis is on the organization and function of crime prevention agencies and on community resources in preventing crime.
Prerequisites: CRJ 155 and CRJ 255 or 290

CRJ 263—Investigative Concepts 3-0-3
Fundamentals of investigative theory; developing informational processes; principles of interviewing and question construction; instrumentation techniques; identification of persons and things; and investigative operations. Covers the history and psychology of criminal investigation, computer technology as a tool in investigation, and current issues involving invasion of privacy.
Prerequisite: CRJ 155

CRJ 265—White Collar Crime 3-0-3
This course will examine the economic and sociological aspects to white collar crime as well as the criminological aspects to this growing problem in the American criminal justice system. Topics include dealing with administrative, environmental, labor and manufacturing violations, and unfair trade practices. Will also explore crimes dealing with embezzlement, extortion, fraud and conspiracy.

CRJ 276—Community Relations 3-0-3
History and background of community relations programs of police and other law enforcement agencies; public attitudes toward law enforcement agencies; the changing nature of societal controls and the concept of professionalism in law enforcement. Includes studies of case histories of community relations programs by law enforcement agencies.

CRJ 283—Institutional Treatment of Adults and Juveniles 3-0-3
Studies correctional institutions relative to their role in the rehabilitation of individuals. Covers the early history of imprisonment, classification and custody of incarcerates, security measures, and the development and organizational structure of large penal systems.

CRJ 290—Principles of Criminology 3-0-3
Introduces historical and current criminological theories with emphasis on the criminal justice system and its role in crime prevention.

CRJ 296—Introduction to Criminalistics 3-0-3
Covers the scientific aspects of criminal investigations including the application of knowledge from the forensic sciences. Includes the collection and use of fingerprints; firearms and ballistics reports; hair, blood and paint samples; tools, poisons and other organic materials as evidence.
Prerequisite: CRJ 155

CUL–CULINARY ARTS

CUL 121—Apprenticeship I 1-40-2
A supervised and evaluated on-the-job training experience designed to provide practical application of the skills and methodology of the skilled culinarian or restaurant/culinary manager. Job site must be approved by coordinator. Uniforms required.
Prerequisite: Must be enrolled in the chef apprenticeship program or the restaurant/culinary management program in partnership with Nemacolin Woodlands Resort.

CUL 122—Apprenticeship II 1-40-2
A supervised and evaluated on-the-job training experience designed to provide practical application of the skills and methodology of the skilled culinarian or restaurant/culinary manager. Uniforms required.
Prerequisite: CUL 121

CUL 123—Apprenticeship III 1-40-2
A supervised and evaluated on-the-job training experience designed to provide practical application of the skills and methodology of the skilled culinarian or restaurant/culinary manager. Uniforms required.
Prerequisite: CUL 122

CUL 130—Basic Culinary Skills 3-0-3
This course is designed to prepare the student for entry level cook positions. Equipment usage, care and safety will be demonstrated and practiced by the students. Basic preparation skills such as dicing, chopping, mincing, breading, etc., will be demonstrated and practiced by the student. Uniforms, cutlery set and decorative tips required.

CUL 132—Garde Manger 1-4-3
Stresses basic garde manger principles as well as the functions and duties of the department as it relates and integrates into the other kitchen operations. In addition, emphasis is placed on introduction to specialty work which includes ice carving, buffet decorations, and culinary competitions. Uniforms, cutlery set and decorative tips required.
Prerequisite: FSM 105

CUL 135—Speed Scratch Cooking 1-4-3
The student will study and prepare convenience foods used in commercial operations. Emphasis is placed on researching and analyzing the most up-to-date convenience products available. Menus will be evaluated for food and labor costs and as to where convenience products can be introduced without changing quality of product.

CUL 224—Apprenticeship IV 1-40-2
A supervised and evaluated on-the-job training experience designed to provide practical application of the skills and methodology of the skilled culinarian or restaurant/culinary manager. Uniforms required.
Prerequisite: CUL 123

CUL 232—Food Specialties 1-4-3
Advanced food preparation skills to include regional and ethnic cuisine and food trends. Uniforms, cutlery set and decorative tips required.
Prerequisite: FSM 105

DAE, DAS–DENTAL ASSISTING

DAE 100—Dental Anatomy 2-0-2
This course is designed to provide students with a comprehensive study of the morphology and function of the human permanent and primary dentitions and skeletal and dental classifications of occlusion.
(Graduates of the WCCC Dental Assisting or Dental Hygiene programs are not required to take this course. DAS 101 or DAH 104 will be substituted for DAE 100)

DAE—101 Expanded Functions Dental Assisting I 3-6-6
This course is designed to provide students with the knowledge and skills necessary to perform the EFDA functions as delegated by the PA State Board of Dentistry. Lecture and laboratory sessions will present each function in detail and provide students with the opportunity to become competent in the EFDA functions.

DAE 102—Expanded Functions Dental Assisting II 1-8-3
This course is designed to provide students with the opportunity to perform EFDA functions and evaluate their performance through journal writing and class discussion. Clinical experience is arranged through approved dental practices. Liability insurance must be maintained by the student while enrolled in the program. Clinical sessions include a wide variety of restorative experiences on many patients. Two four-hour clinical sessions are required per week for 15 weeks. Students who are able to schedule more than eight hours per week may complete the clinical rotation in less than 15 weeks.
Prerequisites: DAE 100, DAE 101

DAS 100—Introduction to Dental Assisting 4-0-4
This course is designed to give the student an introduction to the scope and depth of dental assisting practice. An introduction to the dental specialties is provided with an emphasis on restorative dentistry procedures.
Corequisites: DAS 101, DAS 103

DAS 101—Oral Anatomy 2-0-2
This course is designed to study the normal anatomy of the oral cavity and the oral facial structures as well as the nerve supply to these areas. Tooth morphology and function are also discussed.
Corequisites: DAS 100, DAH 103

DAS 102—Dental Materials for Dental Assistants 1-2-2
Lecture and laboratory course designed to familiarize the dental assisting student with commonly used materials in dentistry. The focus is on appropriate use of the materials and the correct manipulation of the materials.

DAS 103—Dental Assisting Lab 0-8-4
This course is designed for students to observe, discuss, and practice the clinical skills required to perform dental assisting procedures. Students will apply didactic concepts in a supervised clinical laboratory setting.
Corequisites: DAS 100, DAS 101

DAS 104—Dental Science 4-0-4
This course provides an overview of the dental sciences. Didactic emphasis is placed on pharmacology/pain control, oral histology and embryology, oral pathology and nutrition.
Prerequisites: DAS 100

DAS 105—Dental Radiology for Dental Assistants 2-2-3
This course provides an overview of dental radiology principles and techniques. Topics include X-ray production, radiation safety, exposure technique, film processing, landmark identification and client management. The student will apply didactic concepts in a supervised clinical laboratory setting.

DAS 106—Clinical Dental Assisting I 2-12-5
This course provides didactic and clinical practice experience for the student dental assistant. The didactic portion of this course relates to preventive dentistry and the treatment of patients with special needs. Emphasis is also on the dental specialities of pediatric dentistry, endodontics, oral pathology, oral maxillofacial surgery, orthodontics, periodontics, prosthodontics, and dental public health. Students will be supervised in all phases of dental assisting while rotating through selected departments at the University of Pittsburgh School of Dental Medicine and the WCCC Dental Hygiene Clinic.
Prerequisites: DAS 100, DAS 101, DAS 103
Corequisites: DAS 104

DAS 108—Clinical Dental Assisting II 1-12-4
This course provides didactic and clinical practice experience for the student dental assistant to be competent to begin practice upon program completion. The didactic portion of this course relates to preparation for the Dental Assisting National Board Examinations and successful role implementation upon employment. Emphasis is also placed on the legal and ethical issues in dentistry. Clinical emphasis is on obtaining mastery of dental assisting skills. Students will complete a supervised preceptorship in private dental offices.
Prerequisite: DAS 106

DAS 109—Practice Management 2-0-2
This course presents an overview of the administration and a management of a dental office. The student will be introduced to the use of the microcomputers and their application in a dental office.
Corequisite: DAS 108

DAH–DENTAL HYGIENE

DAH 101—Introduction to Dentistry 2-2-3
Designed to give the student an in-depth study of dental terminology, medical/dental histories, charting, dental instruments, infection control, sterilization, pain control and patient management. Lecture and laboratory sessions introduce the student to each of the dental specialties and provide the student with the knowledge and skills required for application in the clinical setting.
Corequisite: DAH 102

DAH 102—Dental Materials 1-2-2
Lecture and laboratory course designed to familiarize the dental hygiene student with commonly used materials in dentistry. The focus is on properties, proper technique of manipulation, and influence of manipulation upon these properties.
Corequisite: DAH 101

DAH 103—Medical Emergencies 1-0-1
Prepares students to recognize and manage medical emergencies in a dental office. Emphasis is placed on prevention through the use of medical histories and the team approach to emergency situations.

DAH 104—Head, Neck and Dental Anatomy 4-0-4
Designed to reinforce the normal anatomical structures, musculature, blood and nerve supply to the head and neck. The administration of local anesthesia, tooth morphology and function are also discussed.

DAH 105—Dental Radiology 2-2-3
Provides an overview of dental radiology principles and techniques. Topics include x-ray production, radiation safety, exposure technique, film processing, landmark identification and client management. The student will apply didactic concepts in a supervised clinical laboratory setting.
Prerequisite: DAH 104

DAH 106—Nutritional Biochemistry 2-0-2
Introduces the science of nutrition. Sources and functions of nutrients, utilization of food in the body, nutritional requirements for various age groups and rudiments of diet counseling are discussed.

DAH 109—Oral Pathology 2-0-2
Studies the process of diseases with emphasis on diseases and their manifestations in the oral cavity. Recognition and detection of such deviations from normal is stressed. The emphasis is on inflammation, regeneration, repair, immunity, allergy, oral manifestations of disease, tumors and developmental disturbances.

DAH 111—Dental Hygiene Lecture 3-0-3
Provides an introduction to the fundamental concepts of oral health care services, disease control and dental hygiene instrumentation skills.
Corequisite: DAH 112

DAH 112—Dental Hygiene Lab 0-8-4
Designed for students to observe, discuss and practice the clinical skills required to perform oral health care services. Students will apply didactic concepts in a supervised clinical laboratory setting.
Prerequisites: BIO 171 and CHM 264
Corequisite: DAH 111

DAH 113—Oral Histology/Embryology 2-0-2
Studies the embryonic development of the head, face and oral cavity. Histologic structure of the oral tissues with relation to their clinical form and function is discussed.

DAH 114—Periodontics I 3-0-3
Designed to study the periodontium in healthy and diseased states. Emphasis is placed on the anatomy of the periodontium, disease classification and etiology, the assessment and documentation of clinical findings and the role of the dental hygienist in non-surgical periodontal therapy.

DAH 115—Clinical Dental Hygiene I 2-12-5
Provides for the development of the knowledge and clinical skills required to provide oral health care services. Didactic emphasis is placed on disease control and prevention. Students will provide oral health care services in a supervised clinical setting.

DAH 205—Periodontics II 1-0-1
Designed to study the diagnosis and treatment of periodontal disease. Emphasis is placed on the differentiation of various periodontal surgical procedures, wound healing, implantology, pre- and post-operative patient education and preventive maintenance.
Prerequisites: DAH 114 and DAH 115

DAH 206—Clinical Dental Hygiene II 2-16-6
Provides refinement of the knowledge and skills required to provide oral health care services. Didactic emphasis is placed on the provision of services for and the management of patients with special needs. Students will provide oral health care services in a supervised clinical setting.
Prerequisite: DAH 115

DAH 207—Pharmacology 2-0-2
Designed for dental hygiene students to study the physiology, interactions and effects of drugs. Emphasis is placed on drugs commonly used and/or encountered in dental practice.

DAH 208—Clinical Dental Hygiene III 2-16-6
Designed to expand the students' knowledge and clinical skills, enabling them to render comprehensive oral health care utilizing case based methodology, the reflection on ethical and legal obligations of the dental professional and successful role implementation upon employment. Students will provide oral health care services in a supervised clinical setting.
Prerequisite: DAH 206

DAH 209—Community Dental Health 3-0-3
A basic orientation to the principles of community oral health planning and practice. The hygienist's role as an educator and resource person for the community will be emphasized. Students will expand their knowledge and skills necessary to promote oral health care in the community.

DFT–DRAFTING

DFT 105—Technical Drafting I 2-4-4
A beginning course for students who have little or no previous experience in drafting. The principle objectives are: basic understanding of orthographic projection; size description, detail and assembly work drawings; understanding of principles and appropriate applications of descriptive geometry. A.S.A. standards are stressed. Interpretation of industrial sketches and prints is introduced to emphasize accepted drawing practices and to develop an early appreciation of engineering graphics.

DFT 106—Technical Drafting II 2-4-4
A continuation of DFT 105 Technical Drafting I. The instructional units will provide the students with more advanced drafting techniques and competencies. Handbooks and other material sources in adherence to the American National Standards Institute will be utilized.
Prerequisite: DFT 105

DFT 110—Blueprint Reading 1-2-2
Introduces the basics of drafting principles and symbology used for interpreting prints for industry. Actual prints are provided for experience in proper interpretation. Topics include title blocks, material identification, revision systems, sketching, orthographic projection theory, dimensioning and tolerance, detail and assembly drawings, sections, thread representation and specifications and callouts for welding processes.

DFT 112—Introduction to Design, Materials and Processes 3-0-3
Focuses on the study of design, materials and the primary processing methods used in manufacturing. A practical course devoted to the many ways in which raw materials are economically converted into useful products. Discussions of primary processing methods - materials additions, removal, and change - are grouped together, followed by coverage of applications. Properties of various materials will be covered. Students first build a thorough knowledge of similarities and differences in materials, then processing methods, and that foundation carefully sets the stage for an understanding of how to choose the optimal processes for a specific project.

DFT 199—Drafting and Design Internship 1-12-3
Students will obtain experience in the drafting and design field through a combination of occupational instruction and on-the-job training. This course integrates classroom occupational study with a planned supervised practical work experience.
Prerequisite: Permission of instructor

DFT 207—Tool Design 2-2-3
Designing and detailing drawings, cutting tools, dies, jigs, fixtures and forming tools that enable a tool and die maker to make tools capable of producing duplicate parts on a production basis.
Prerequisite: DFT 106

DFT 208—Product Design 2-2-3
Introduces methods of designing a finished product or a simple machine. Student applies the basic design fundamentals and computations needed to produce a product.
Prerequisite: EGR 105 or DFT 112, DFT 207

DFT 258—AutoCAD 2-4-4
AutoCAD teaches students to draw, edit, dimension and plot 2-D machine drawings with AutoCAD 2006 software. Basic operating features and file management functions of Microsoft Windows will also be taught in the course.

DFT 259—Advanced AutoCAD 2-4-4
Advanced AutoCAD covers advanced drawing and editing commands, drawing and plotting scales, symbol and block usage, Xreferences, paper space functions, ordinate dimensions, and customizing toolbars. Approximately 1/3 of the semester will be devoted to covering AutoCAD's 3D solid modeling capabilities.
Prerequisite: DFT 258

DFT 260—Computer-Aided Manufacturing-MasterCAM 2-4-4
Provides students with a thorough understanding of computer-aided manufacturing (CAM). MasterCAM software will be used to teach students offline CAM programming.

DFT 262—Piping, Structural Detailing and Electromechanical Drafting 2-4-4
This course is an AutoCAD applications course that will include piping, structural detailing, electromechanical details, and working drawings. The student will experience more complicated problems in this course, and will coordinate previous skills for a graphic solution. (AutoCAD version 2006 will be used.)
Prerequisite: DFT 258

DFT 265—Solid Modeling with Mechanical Desktop **2-4-4**

Studies the features and applications of mechanical desktop's parametric modeling software. The development and editing of 3-D solid models, 3-D solid assemblies and parametric dimensioning is taught. The display and plotting capabilities of mechanical desktop are also studied. (Mechanical Desktop, version 4)
Prerequisite: DFT 259

DFT 266—Autodesk Inventor **2-4-4**

Autodesk Inventor is created and marketed by Autodesk for mechanical design. Inventor is a 3-D feature-based parametric solid modeling computer software. Inventor may be used to create 3-D solid model parts, engineering drawings of solid model parts, and assemblies of solid parts. Inventor is also capable of creating sheet metal parts and sheet metal part drawings. The primary goal of this course is to teach students how to use Inventor software for solid part modeling. Creating and editing solid parts, creating engineering drawings from solid parts, assembly modeling and creating sheet metal parts will be covered in lectures and lab assignments.

DTT–DIETETIC TECHNICIAN

DTT 111—Introduction to Dietetics **3-0-3**

Orientation to the field of dietetics and dietary management, including related medical terminology. Explores the partnership between dietetic professionals and other related professionals. Transportation to off-campus locations is the responsibility of the student. All new dietetic technician students are required to take this course in their first semester.
Prerequisite or corequisite: FSM 159

DTT 114—Topics in Nutrition and Health **3-0-3**

Modification of the diet to meet the physiological, psychological, social and economic needs of individuals. The changes in physiological processes will be discussed along with the need for altering nutrient intakes that affect this change. Current diet related concerns are discussed.
Prerequisite: FSM 159

DTT 199—Nutritional Services Management Practicum **3-1-12**

This is the capstone practicum required for completion of the nutritional services management option of the dietetic technology program. Under the supervision of a qualified nutritional services manager, students will gain the practical experience needed to fulfill the minimum requirements for entry level clinical and supervisory positions as a nutritional services manager or dietetic assistant. The importance of professional behavior and working with the health care team are emphasized.
Prerequisites: DTT 114, FSM 112, ACC 165, FSM 235 (or concurrent), and permission of instructor

ECE–EARLY CHILDHOOD EDUCATION

ECE 179—Infant and Toddler Development **3-0-3**

Considers the development of the very young child from conception and birth through age two. Physical, motor, perceptual, cognitive, language and affective development are examined from various theoretical perspectives. In addition, the course deals with specific issues related to infancy, including infant day care, programs and curriculum, working parents and public policy.

ECE 180—Child Growth and Development **3-0-3**

Covers the development of children from two to eight years including the language-motor, emotional, cognitive, social and psychological frameworks of development with particular emphasis given to practical examples of theoretical principles. Techniques for observing and enhancing development are emphasized.
Prerequisite: ECE 179 with passing grade

ECE 183—Creative Expression and Communication for Children **3-0-3**

Focuses on planning developmentally appropriate curriculum and environments for young children (ages 2-8). The role of creativity is emphasized. Building on this core, the course focuses on methods, materials, and activities to enhance art, play, music, creative movement, and language arts including storytelling, puppets and flannel boards. The role of the adult in a developmentally appropriate classroom is examined with special attention given to observation of children's behavior. Theories of art and play are studied.

ECE 184—Child Care Practicum I **2-8-4**

Concentrates on the child as a unique individual in his learning environment. Specific areas of study of the practicum student include creative planning skills, observation skills and a positive early childhood education philosophy that encourages independence, creative thinking, self awareness, exploration, and healthy attitudes within the child. Professional behavior is emphasized. Students are required to complete 120 hours in an assigned placement.
Prerequisite: Completion of six Early Childhood Education classes, GPA of 2.5 in major and faculty permission

ECE 185—Introduction to Early Childhood Curriculum **3-0-3**

Designed to promote curriculum planning and evaluation of developmentally appropriate activities for young children in a variety of areas such as health, safety, nutrition, physical education, manipulatives, math, science, social studies and field trips. The role of the adult in the classroom is examined with special attention given to methods of child guidance.

ECE 186—Cultural and Social Development of Young Children **3-0-3**

Exploration of cultural and social variables and their impact on the developing child. Attention is given to family issues such as divorce, working and teen mothers. Also, child abuse, poverty, media, day care, stress and violence are studied. Advocacy and ethics are emphasized.

ECE 187—Child Care Management **3-0-3**

Orientation in the planning and administration of early childhood settings. Issues relating to agency policies, guidelines, roles and functions will be considered. This course emphasizes interpersonal staff relationships, effective parent communication and program evaluation. Historical and social foundation of the field is examined.

ECE 188—Introduction to Exceptional Development **3-0-3**

Examines the growth and development of exceptional children. Special focus is given to educational implications, identification, relevant legal issues, and relations with families. Exceptional persons studied are the gifted and talented; mentally retarded; learning disabled; the visually, hearing, and language impaired; behavior disordered; autistic; ADHD; and physically handicapped.

ECE 190—Child Health, Safety and Nutrition **3-0-3**

Designed for early childhood educators and parents. Describes the components of child health, safety and nutrition. Identifies risks to health and safety. Health promotion, disease prevention, and basic care of the child at each developmental stage are examined.

ECE 193—Children's Literature **3-0-3**

Familiarizes students with a wide variety of literary genres ranging from traditional folk tales and nursery rhymes to modern fiction. Attention will be given to the history and the critical study of children's literature.
Prerequisite: ENG 161

ECE 194—Education of Young Children with Special Needs **3-0-3**

Provides an in-depth study of the education of young children with exceptionalities. Identification and appropriate education of young children with special needs will be the focus. Attention given to legal aspects and inclusion.
Prerequisite: ECE 188

ECE 284—Child Care Practicum II **2-8-4**

An in-depth approach that builds upon the basic principles, theories, methods and concepts of ECE 184, and develops a maturity and enhanced competency in early childhood education. Emphasis will be placed on planning and implementing developmentally appropriate curriculum. 120 hours of practicum experience is required.
Prerequisites: Successful completion of ECE 184 and faculty permission.

ECN–ECONOMICS

ECN 155—Macroeconomics 3-0-3
Introduces the challenging problems of macro or aggregate economics. Deals with the effects of government, business and consumer spending on a nation's economy. Through the analysis of the decisions and actions regarding spending, investment, consumption and saving, one can come to an understanding of inflation, the distribution of wealth, the functions that determine employment and unemployment, and the problems of economic development.

ECN 156—Microeconomics 3-0-3
Concerned mainly with the economic activities of individual consumers and producers, or groups of consumers and producers which are known as markets. Microeconomics looks into the individual decisions to expand production, to hire or fire, to buy a product or not, and explores the efficiency and profitability of the business firm. Contemporary problems are examined in the light of economic analysis.

ECN 158—Basic Economics 3-0-3
Analyzes the relevancy of economics and the issues pertaining to the macro level such as total production, total income, interest and inflationary pressures. Some attention will also be given to the economic behavior of specific units within the economy such as individual businesses, household and the like (microeconomics). The entire course will be placed against the background of the existing social, political and legal environment. Economic issues will be discussed as projections of society's values and political inclinations. Finally, the course will analyze international factors, specifically in the areas of trade and commerce.

EDU–EDUCATION

EDU 155—Foundations of Education 3-0-3
This course engages students in a thoughtful study of the historical and philosophical perspectives of modern education practices. Students will be presented with information and assignments that will expose them to three major points of interest for new teachers, including theory and practice, observation/field experience, and test preparation. Students will use observation, classroom discussion, and lectures to help explore the educational environment. Along with the observations of classes, education majors will study the theory of constructivism along with other cognitive theories. Social, emotional and physical needs of school age children will also be explored. Students will be given the opportunity to prepare for the Praxis exam and remediate deficiencies.

EDU 200—Introduction to Instructional Technology 3-0-3
This course is designed for students in a broad range of teaching areas desiring to implement instructional technologies into the teaching/learning experience. Students who successfully complete the course will differentiate, evaluate, prepare and utilize a variety of instructional media in the classroom such as nonprojected media, audio, film, video and computer-based instruction. The course combines a variety of learning environments such as lecture, discussion, group activities and hands-on production.

EGR–ENGINEERING

EGR 104—Engineering Materials 3-0-3
Surveys the metallic, polymeric and ceramic materials used in industry. The course will familiarize the student with the components of modern construction materials from a standpoint of durability, serviceability and appearance. It focuses on material properties of alloys, iron and steel, nonferrous and ferrous alloys, nonmetallic materials, plastics, ceramics, glass, concrete and wood.

EGR 105—Manufacturing Procedures 3-0-3
Surveys the methods used to convert engineering materials into useful items. Methods surveyed include casting, powder metallurgy, hot and cold working, machining, and surface finishing. Measurement, quality control, and corrosion protection are additional topics.
Prerequisite: EGR 104

EGR 110—Descriptive Geometry 2-2-3
Basic introduction designed to illustrate the graphic solution of engineering problems that can be analyzed in three-dimensional space relationships and delineated according to the principles of orthographic projection.
Prerequisite: DFT 105

EGR 122—Industrial Safety and Health 3-0-3
Introduces the concepts and techniques necessary to safely perform tasks in an industrial environment including: materials handling, electrical equipment, fire prevention, flammable materials, safety signs, medical emergencies, hazardous materials safety.

EGR 180—Principles of Industrial Hydraulics 2-4-4
Incorporates the theory and practical application of hydraulics in the nuclear, robotics and engineering fields. Includes the study of industrial/hydraulic principles; actuators, pumps, air compressors, hoists; servo control valves; timers; switches; relays; flow and pressure control valve; relief valves; spool valves and distribution systems. Troubleshooting, analysis and experiment exercises are conducted on a hydraulic trainer.

EGR 181—Principles of Industrial Pneumatics 2-4-4
Deals with the design and operation of advanced servo systems. It also is concerned with such topics as power generation and regulation, accumulators and pneumatic motors.
Prerequisite: EGR 180

EGR 199—Engineering Technology Internship 1-12-3
Students will obtain experience in the engineering field through a combination of occupational instruction and on-the-job training. This course integrates classroom occupational study with a planned supervised practical work experience.
Prerequisite: Permission of instructor

EGR 210—Quality Control 3-0-3
Covers the fundamentals of industrial quality control including necessary probability and statistics basics, control charts, process capability, sampling, reliability and product liability considerations.

EGR 220—Introduction to Statics and Strength of Materials 3-0-3
Study of principles and analysis of stresses which occur in structural elements subjected to statistic loads. Methods of calculation of reactions, stresses, resultants, shear and moment diagrams and their application in various structural problems. Includes study of force systems. Stresses calculated for tension compression and shear in welded, bolted and riveted joints and safety requirements pertaining to type.
Prerequisite: MTH 108

EGR 227—Kinematics 2-2-3
Includes the study of the principles of the kinematics of machines, graphical analysis of motion in terms of position, displacement, velocity and acceleration of machine parts. The understanding of transferring or altering motion through proper design of cams and linkages.
Prerequisites: MTH 109 and PHY 107

ELC–ELECTRONICS

ELC 100—Programmable Logic Control I 3-2-4
Introduces students to the fundamental industrial processes and their control. This course will also include design, function and applications of various industrial controllers.

ELC 102—Electronic Devices 3-2-4
Includes study of semiconductor diodes, transistors and field effect transistors. The characteristics of these devices and their use in design are studied. Emphasis is given to the transistor as a linear amplifying device.
Prerequisites: ELC 105 and ELC 106

ELC 105—Electronic Instruments and Measurement **1-2-2**

Deals with the basic electronic testing, circuit construction and soldering skills needed by a technician. Demonstrated proficiency in the operation of volt-ohm-milliammeters, oscilloscopes, function generators and construction of electronic circuits from schematic diagrams will be required.

ELC 106—Circuit Analysis I **3-0-3**

Considers the principle electrical quantities; current, voltage and resistance; electrical properties of materials, Ohms law, DC power calculations, series and parallel circuits and series-parallel networks; circuit analysis and conversions, network theorems, measurement instruments and techniques; AC sine wave characteristics, inductive and capacitive circuit and analysis.
Corequisite: MTH 052

ELC 107—Circuit Analysis II **3-0-3**

Mathematical techniques developed in Circuit Analysis I are extended to Advanced DC circuits including capacitive and inductive reactances. Exponential responses are investigated. Methods for determining circuit responses with varying frequency sinusoidal voltage and current sources driving them are investigated. Complex notation and complex algebra are used extensively in solving network problems.
Prerequisites: ELC 106, MTH 108

ELC 109—Electronic Assembly **2-2-3**

Provides students with the necessary skills required to assemble electronic circuit boards from schematics or drawings. Assembly procedures are taught using a combination of classroom and computer-aided instruction.

ELC 114—Digital Techniques **3-2-4**

Concerned with electronic systems based on Boolean algebra using electronic devices in a switching mode. Logic gates are identified and their characteristics described in terms of Boolean algebra. Boolean theorems and manipulative techniques are used to design combinational logic circuits. Significant logic families and their characteristics are described. Number systems and their conversions are investigated with emphasis on those systems most used in the computer field. Logic devices are combined into the three classes of multi-vibrators. Sequential logic combinations of multivibrators, their uses and waveforms are studied. Binary arithmetic and the relevant circuits are investigated. Interfacing of the analog and digital worlds is considered.
Prerequisite: ELC 106

ELC 199—Electronics Engineering Internship **1-12-3**

Students will obtain experience in the electronics engineering field through a combination of occupational instruction and on-the-job training. This course integrates classroom occupational study with a planned supervised practical work experience.
Prerequisite: Permission of instructor

ELC 200—Programmable Logic Control II **3-2-4**

Introduces students to the basic concept of automated manufacturing systems including drive mechanisms and sensing devices. This course will give students a background in today's flexible systems.
Prerequisite: ELC 100

ELC 201—Programmable Logic Control III **2-2-3**

Introduces students to automated-manufacturing system troubleshooting. This course is designed to give students practical experience in problem-solving and applications.
Prerequisite: ELC 200

ELC 202—Linear Electronics **3-2-4**

A continuation from ELC 102 of the study of linear amplification of signals. In this course the frequency effects of reactive circuit components and device reactances are considered. Operational amplifiers are developed and studied as amplifying devices in negative feedback circuits. Applications of negative feedback amplifiers, both linear and nonlinear, are investigated. Voltage regulation in power supply circuits and the techniques involved are studied. Oscillators and the criteria for oscillation are established.
Prerequisites: ELC 102, 107, MTH 109 or 158

ELC 206—Microprocessors **3-2-4**

Students will become familiar with the microprocessor as a circuit device, with its architecture and its role in microprocessor-based systems. The organization of these systems will be investigated to specify the roles of buses and ancillary integrated circuits and input and output functions. Particular attention will be given to the interfacing of the microprocessor system with the outside world in both parallel and serial. The student will learn assembly language programming and the use of an assembler to generate object code.
Prerequisite: ELC 114

ELC 208—Industrial Robotics **3-2-4**

Investigates the field of industrial robotics with particular attention given to the role of electronics. Includes instruction in the principles of which the industrial robot operates. Because of the widespread use of hydraulics and pneumatics as power sources for industrial robots, these subjects are introduced with particular attention given to interfacing with electrical and electronics systems used for control. Electricity as a power source will be covered with emphasis on control devices, systems and circuitry. The electronics technician can be expected to maintain and repair the command and control function of industrial robots, so much of the course will be devoted to this subject. Some specific industrial applications are investigated and future trends are explored.
Prerequisite: ELC 114

ELC 209—Instrumentation and Process Control **3-2-4**

Investigates the electronic techniques that are used for measurement and control in process control systems. Closed-loop systems including transducers, signal conditioning and analog and digital controllers will be considered. The overall objective is to prepare graduates to install, adjust and maintain electronic and related parts of commercial and industrial systems.
Prerequisite: ELC 105, ELC 106

ELC 210—Electric Machines **3-2-4**

Covers the material needed by electronics technicians who wish to work on electric machinery. Includes the principles of magnetic theory, transformer theory, energy conversion, various types of motors and dynamic transfer function. It also deals with the solid-state electronic control of AC and DC motors. Includes Stepper motors which are becoming increasingly important in robotics and computer peripheral devices.
Prerequisites: ELC 107 and MTH 109

ELC 211—Fiber Optics/Laser Technology **3-2-4**

Developed to keep up with advancing technology. While lasers have been around for some time, fiber optics is still relatively new. This course combines the two areas to study communication networks as well as medical applicants, guidance systems and servo systems.
Prerequisite: ELC 114

ELC 212—Computer Systems Technology **3-2-4**

Digital principles and microprocessor principles are brought to practical application in the complete computer system. The computer system, as studied, comprises the central processor unit main memory, secondary memory and input/output peripheral devices. The specific vehicle for study is the IBM-PC or an equivalent personal computer. The computer will be considered as an operating system and as a subject for installation, alignment, troubleshooting and repair.
Prerequisite: ELC 114

ELC 213—Microprocessor Applications **3-2-4**

A continuation of Microprocessors and includes a more in-depth study of peripherals and interfacing, microprocessors with peripheral devices. Students study later generation chips to include 16-bit microprocessors. Special purpose microprocessor-based systems are introduced and related to microcomputer and industrial applications.
Prerequisite: ELC 206

ENG–ENGLISH

ENG 030—Basic Writing **3-0-3**
This first-level composition course covers the fundamentals of grammar, punctuation, mechanics, and sentence and paragraph structure. It is the primary course in the developmental writing sequence, and it prepares students for the intermediate-level developmental writing course in short essay writing. Developmental courses may not be used to fulfill degree requirements.
Prerequisite: Placement Test

ENG 050—Reading and Study Skills **3-0-3**
This course will focus on but not be limited to the basic readiness skills for college-level reading and studying. Skills such as time management, textbook previewing, concentration, vocabulary development, memory development, and study strategies will be stressed. Along with the study skills students will develop skills in identifying topics and main ideas, selection and isolation major supporting details and minor supporting details, and reading test and exam questions. Students will use content specific information to develop sills in reading and studying.
Prerequisite: Placement Test

ENG 070—Intermediate Writing **3-0-3**
A lecture course emphasizing individualized instruction and the development of writing skills needed in all college studies. Includes review and application of the basics of standard written English with an emphasis on practical application in weekly writing assignments. Developmental courses may not be used to fulfill degree requirements.
Prerequisite: ENG 030 or Placement Test

ENG 080—Intermediate Reading **3-0-3**
This course is designed to refine study skills and comprehension ability. Topics include but are not limited to critical reading skills: distinguishing fact from opinion, identifying cause and effect, and effectively using figurative language. Content reading will be emphasized. This course is open to students who test between 50-79 on the Accuplacer test, and those students who have successfully completed ENG 050.
Prerequisite: ENG 050 or Placement Test

ENG 159—Introduction to Theatre **3-0-3**
Provides an introduction to theatre as an art form. Emphasis is placed on historical development, social context and formal analysis of drama as literature as well as popular entertainment. Students gain an understanding of and an appreciation for theatre as a logical development of the human need to dramatize perspective on the immediate world.

ENG 161—College Writing **3-0-3**
Covers the fundamentals of college writing including the paragraph, the expository essay patterns and the argumentative essay. Emphasis is placed on developing a coherent thesis, writing concisely and clearly and adapting one's writing to a particular audience. This course also emphasizes self-editing, mechanics, grammar, spelling improvement and vocabulary development. Provides the basis needed for students to concentrate later on effectively producing a range of writing from technical reports, to business communications, to research and critical papers.
Prerequisites: ENG 070, ENG 080 or satisfactory Placement Test score

ENG 162—Technical Communication **3-0-3**
Stresses the practical application of skills central to all types of communications that technical personnel are called upon to use in their daily work. Includes training in the writing of memos, business letters, instructions, resumes, summaries, proposals, and technical reports such as the progress report. The course also addresses proofreading and editing one's own writing, reading critically in a technical field, developing listening skills, and interacting in discussion and problem-solving groups.
Prerequisite: ENG 161

ENG 163—Business Communication **3-0-3**
Stresses the application of skills central to all types of communications business personnel are called upon to use in their daily work in the office and the marketplace. Includes training in the writing of business correspondence, job related forms and formal reports; proofreading and editing; reading and understanding the vocabulary of the business world; methods of gathering and organizing information; preparing and presenting daily data orally before groups; using the concepts of advertising and public relations and participating in problem-solving discussion groups.
Prerequisite: ENG 161

ENG 164—Advanced Composition **3-0-3**
Further develops and refines the student's abilities in expository and argumentative writing and introduces the methods, techniques and materials of research. The end result in written work of the course is the completion of a research paper done by the student under the supervision and guidance of the instructor. The course continues to stress conciseness and clarity of expression; gathering and organizing ideas and editing to polish mechanical elements such as grammar, spelling, and punctuation.
Prerequisite: ENG 161

ENG 165—Creative Writing **3-0-3**
Acquaints students with the techniques of writing description, poetry and short fiction. Student writings will be viewed as statements of the individual's creative self as well as work to be considered for publication. It is advised that students complete a literature course before taking this course.
Prerequisite: ENG 161 or permission of instructor

ENG 166—Special Topics in Technical Communication **3-0-3**
Presents a systematic method for writing technical reports in a specific career field. Topics will vary according to student needs. Attention will be given to selection of details, organization of data, and perspective of writer, with emphasis placed upon accuracy, specificity, and clarity.
Prerequisite: ENG 161

ENG 240—Science Fiction **3-0-3**
Introduces the foundations, traditions and trends of the genre of science fiction. In examining classic and contemporary works, the course will explore themes such as time travel, social satire, dehumanization, utopia, visions of technical innovations and encounters and aliens.
Corequisite: ENG 161

ENG 245—Creative Writing II **3-0-3**
This course is designed to give the student an additional opportunity to develop creative writing abilities. An array of exercises will help the student to traverse and harness creative power and to express the self by writing out loud. Using the techniques of description, poetry and short story writing learned in English 165, the student will explore longer creative projects: options may involve a chapbook of poetry, a collection of short stories, a novel (or chapters in a novel), an autobiography, a family or town history, or a multi-genre/multimedia work. Imagination, creativity, and discipline in writing will be stressed in all cases.
Prerequisite: ENG 165 (ENG 256 also recommended)

ENG 255—Introduction to Literature **3-0-3**
Introduces students to literary analysis. The course content varies, but relies most heavily on short stories and emphasizes both critical analysis of the works presented as well as the social/historical contexts in which they were written. Students are encouraged to develop their own ideas as they become familiar with various critical approaches to the texts. Students are asked to identify that which constitutes literary value in a text and are encouraged to broaden their definitions of literary culture.
Prerequisites: ENG 070, ENG 080 or satisfactory Placement Test score

ENG 256—20th Century Literary Themes **3-0-3**
This introductory course is a multi-gendered, multicultural approach to some of the major themes of 20th century literature. Social change is shown through texts that represent a broad spectrum of voices. Students are encouraged to question the effects of literary culture on a heterogeneous society as well as the effects of society on literary expression.
Prerequisites: ENG 070, ENG 080 or satisfactory Placement Test score

ENG 258—Survey of World Literature 3-0-3
Covers western and non-western literary classics and their relevant modern counterparts. The types of literature covered include the epic, the tale, the novel, drama, the essay, and poetry. A comparative approach is used in dealing with such themes as war, adventure, love, social customs, and death and the afterlife.
Prerequisites: ENG 070, ENG 080 or satisfactory Placement Test score

ENG 260—American Voices 3-0-3
This is an introductory survey course. Students will examine American literature as an expression of the cultures which produced it. Students will be encouraged to use the literary experience as a means of understanding our individual and collective identity as Americans.
Prerequisites: ENG 070, ENG 080 or satisfactory Placement Test score

ENG 264—Introduction to Journalism 3-0-3
Introduces journalistic principles and practices with an emphasis on the tools and skills used by contemporary reporters in collecting information and writing news articles. The course also includes a study of the news media and their influence on society.
Prerequisite: ENG 161

ENG 270—English Literature Survey I 3-0-3
This course examines the masterpieces of English literature from its earliest inception - with the epic poem "Beowulf" - to the end of the Renaissance. Students will explore the history, psychology, and theology of the people and their literature from earliest Anglo-Saxon times, through the Middle Ages, with emphasis on Geoffrey Chaucer's "The Canterbury Tales." The course also includes the Renaissance, with an emphasis on the life and works of its greatest contributor, William Shakespeare. Through the use of multimedia techniques, students will read, see, and hear what many scholars consider the greatest of Shakespeare's history plays, "Henry V."
Prerequisites: ENG 070, ENG 080 or satisfactory Placement Test score

ENG 271—English Literature Survey II 3-0-3
This course begins with an examination of the 17th century poetry and prose of such classic writers as John Milton, then progresses to the 18th century satire of Jonathan Swift and the poetry of William Blake, before immersing the student in the Romantic Age, with concentration on the poets Shelley, Keats, Coleridge, Wordsworth, and Byron. It may concentrate as well on the Gothic novel as represented by Mary Shelley's classic "Frankenstein" or a variety of other works. English Literature Survey I is not a prerequisite for this course.
Prerequisites: ENG 070, ENG 080 or satisfactory Placement Test score

ENG 275—World Mythologies 3-0-3
A survey course designed to introduce students to definitions of and theories about myth; to discuss and analyze myths of various cultures around the world and through time. The relevance of myth to everyday, modern life will also be stressed. Themes covered will be creation of the cosmos, the natural environment, and humans; ideas about divinity and heroism; concepts about death and the afterlife.
Prerequisites: ENG 070, ENG 080 or satisfactory Placement Test score

ENG 276—African American Literature 3-0-3
Examines the literary contributions of African-American writers beginning with the early works of the Folk Tradition, with an emphasis on its African roots, to the modern influences of Toni Morrison and Maya Angelou. The course will explore the historical and cultural issues, as well as the societal pressures encountered by these writers from slavery through the Harlem Renaissance and beyond. The course will expose students to traditional literary forms of poetry, fiction and drama, but also may include speeches, sermons, and nonfiction as well.

ENG 277—Native American Literature 3-0-3
This course covers Native American contributions to literature beginning with the oral tradition of myths, legends, and songs from various tribes throughout the United States and Canada. It will progress in chronological manner touching on the following areas: historical documents and writings from the colonial period through the end of the 19th century. The course will also emphasize fiction, poetry, and nonfiction of the 20th and 21st centuries.
Prerequisites: ENG 070, ENG 080

ENG 280—History of the English Language 3-0-3
The Story of English telecourse traces the English language from its origins as the language of a small, remote tribe to the most widely used language in the world today. The growth of English is traced geographically, culturally and politically as the powerful impact of this most diverse tongue is analyzed.
Prerequisite: ENG 161

ENG 290—Shakespeare 3-0-3
This course combines an in-depth study of Shakespeare's plays using traditional text, staging/directing techniques and the medium of film.
Prerequisites: ENG 070, ENG 080 or satisfactory Placement Test score

EPS–EARTH AND PLANETARY SCIENCE

EPS 150—Astronomy 3-2-4
An introduction to the solar system with an emphasis on the sun, major and minor planets, earth moon system, etc., and the study of physical laws of motion and properties of light. Some night observation and lab work are an important part of this class.

EPS 160—Earth Science 3-0-3
A physical science course with emphasis on topics from astronomy, meteorology, oceanography, and geology, focusing on the earth as the physical environment in which we live. This course also covers man's impact on the environment.

EPS 163—Introduction to Physical Geology 3-2-4
Deals with materials, land forms and structural features of the earth and the biological, chemical and physical processes that produced them. Topics include water; wind and glaciers; the construction and composition of rocks and minerals; the formation and deformation of rockbeds; earthquakes and volcanoes; and the interior processes and origins of the earth.

FRN–FRENCH

FRN 155—Beginning French I 4-0-4
A beginning language course with emphasis on elementary speaking, reading, writing and comprehension.

FRN 156—Beginning French II 4-0-4
Continuation of FRN 155; increased conversational ability and emphasis on reading and writing French.
Prerequisite: FRN 155

FRN 255—Intermediate French I 3-0-3
A continuation of FRN 156. Although the approach will be a communicative one, writing and reading skills will be developed along with the speaking and listening skills. The course will be organized according to the guidelines for proficiency language learning.
Prerequisite: FRN 156

FRN 256—Intermediate French II 3-0-3
A continuation of FRN 255. Students will continue to improve communication skills with four areas of speaking, listening, reading and writing being stressed. A proficiency oriented approach and materials will be used.
Prerequisite: FRN 255

FSM–RESTAURANT/CULINARY MANAGEMENT

FSM 101—Food Safety Certification 1-0-1
A study of food and the methods needed to control contamination and microbial growth. The principles of HACCP and food safety standards and regulations will be presented. Emphasis is given to developing a working environment which will provide the consumer with wholesome, safe food that conforms to the standards of the regulatory agencies. This course is offered in conjunction with the Educational Foundation of the National Restaurant Association. Upon successfully completing the final Servsafe exam, provided by the Educational Foundation of the National Restaurant Association, the participant is eligible to apply to the Pennsylvania Department of Agriculture for the Food Employee Certification.

FSM 103—Introduction to the Hospitality Industry 3-0-3
An overview of the careers and opportunities in food service, lodging and tourism with an emphasis in employability skills. Individual responsibilities, current industry issues, and future trends are explored. Transportation to off-campus locations is the responsibility of the student.

FSM 105—Foods I 2-4-4
Introduction to food preparation and theory will introduce the student to the application of principles of food cookery. Principles relating to various categories of food preparation will be investigated and then applied in a laboratory situation. Sanitation and safety procedures will be emphasized. Uniforms, cutlery set and decorative tips required for all lab classes.

FSM 112—Quantity Foods 1-6-4
A continuation in food preparation, with cooking in quantities. Teaches the reasons for preparing foods in various ways to satisfy the clientele; also what commercial equipment is available to produce the best quality end product. Major emphasis is placed on menu planning, standardizing recipes and food production. The student is made aware of work simplification, cost control organization and administration. Types of meal service are studied. Student assumes various positions such as manager, cook, baker, etc. in lab periods and operating student-run cafe. Uniforms, cutlery set and decorative tips required.
Prerequisite: FSM 105

FSM 113—Customer Service 3-0-3
Students will be taught to deliver high-quality service in various positions throughout the hospitality and tourism industry. Emphasis will be given to establishing a service strategy, selecting and training service employees, and delivering customer-friendly systems of operation.

FSM 117—Wait Staff Training 1-0-1
Emphasizes techniques and procedures of proper service. The responsibilities, qualifications and conduct of waitstaff personnel will also be presented. The course is designed for students and managers who are interested in the training of food servers. It is also designed for those individuals who are employed in the field or those who are seeking employment as a waitstaff person and have had no training. Dining room attire required.

FSM 118—Sanitation 2-0-2
A study of food and environmental sanitation and safety in food service. Emphasis is given to the study of food-related diseases their origins as well as the precautionary measures that must be taken to prevent these diseases. Providing the consumer with wholesome, safe food that conforms to the standards of the regulatory agencies is stressed. ServSafe is an operations-centered certification course offered by the Educational Foundation of the National Restaurant Association. Upon completion of the course, a final certification exam furnished and corrected by the Educational Foundation of the National Restaurant Association will be administered. A certificate of completion will be forwarded to those obtaining a minimum score of 75% on the exam. This certificate can be used to apply to the Pennsylvania Department of Agriculture for the Food Employee Certification.

FSM 119—Beverage/Dining Room Management 1-0-1
A study of beverage and dining room services. Information will be given on cost and product controls, inventory control, industry standards and personnel training and staffing. Emphasis will be given to liquor liability responsibilities and government agencies. Basics of mixology will also be presented. Dining room attire required.

FSM 120—Wine Appreciation and Service 1-0-1
An in-depth study of wine production and classifications. Emphasis given to pairing of wine and food, formal wine service, and service needed to enhance customer appreciation. Dining room attire required.

FSM 127—Service Techniques 1-0-1
Designed to develop technical service skills for the student interested in front of the house employment in the food service industry. Service skills and techniques which will be emphasized are adaptations of service styles and equipment for the various industry segments, tableside cooking, personal sales, and server responsibilities in relation to the customer. Dining room attire required.

FSM 157—Catering 1-4-3
Introduces the principles, operations and different organizational structures of service catering. Emphasis will be on the menu planning, costing, business records, insurance, government regulatory information, garnishing for merchandising, equipment and personnel training for this type of operation. Lab experience will involve recipe testing and production for a selected number of class catering experiences. Transportation to off-campus locations is the responsibility of the student. Uniforms, cutlery set and decorative tips required.
Prerequisite: FSM 105 or permission of instructor

FSM 159—Nutrition 3-0-3
The student learns the nutrients, their sources and their relation to body functions. Each stage of the life cycle will be studied as it relates to changing nutritional requirements. General nutrition is discussed including the social, economic and psychological implications of food and eating.

FSM 213—A la Carte Kitchen 1-6-4
A combination of learning experiences, self-evaluation and operating systems that pertains to a la carte service. The student will manage and operate the student-run Café. The learning experience with include purchase requisitions, recipes, costing, production schedules and inventory. Uniforms, cutlery set and decorative tips required.
Prerequisite: FSM 105

FSM 215—Food Purchasing and Menu Management 3-0-3
Includes factors to consider in selecting, purchasing, receiving, and storing various foods. Emphasis is given to the development of purchasing policies, procedures, inventory control, storage and menu development and management. Computer application is included in the course.

FSM 218—Hospitality Marketing 3-0-3
Study of the principles of hospitality cost controls. Students become aware of local, state and federal regulations as they apply to the hospitality industry. Promotion, advertising, merchandising, menu design and job description as they relate to the hospitality industry are studied.

FSM 219—Hospitality Internship 1-20-3
A supervised and evaluated on-the-job training experience in a hospitality setting. On-campus seminars are conducted for the students to discuss their experience and career opportunities. Job-site must be approved by instructor. Uniforms, cutlery set and decorative tips may be required.
Prerequisite: Permission of instructor

FSM 225—Hospitality Study Tour I 3-0-3
Allows students to experience the cultural and economic aspects of the hospitality industry in this study location. Actual observation and the study of systems of operation unique to this area will occur and learnings will be applied to the American industry. Travel expenses and fees are the responsibility of the student.
Prerequisite: Permission of instructor

FSM 226—Hospitality Study Tour II 3-0-3
Provides students with a second experience of the cultural and economic aspects of the hospitality industry in this study location. Actual observation and the study of systems of operation unique to this area will occur and learnings will be applied to the American industry. Travel expenses and fees are the responsibility of the student.
Prerequisites: Permission of instructor & FSM 225

FSM 235—Supervision and Training 3-0-3
Involves supervision and training for personnel in the hospitality industry. The course plan of study includes history of management, functions of management, management challenges of the future industry regulations and personal development to achieve goals within the hospitality industry.

FST–FIRE SCIENCE

FST 101—Introduction to Fire Science 3-0-3
A survey of various fields of study in the fire science curriculum, exploring the two major components: suppression and prevention. Topics include: the fire problem and the fire protection organizations; codes and fire safe building design; fire behavior and hazards of materials; extinguishing agents and systems; fire detection devices and municipal fire department organization and administration.

FST 103—Fire Service Administration 3-0-3
Trains the prospective officer in proper management techniques and methods by reviewing classical management theories, records, reports, and evaluations; personnel management; leadership and control; fireground management and the management cycle.

FST 104—Fire Service Hydraulics 3-0-3
Prepares the firefighter to effectively move and apply water in various fireground situations. The principles and rules of hydrostatics and hydrokinetics are taught by instruction in: flow through orifices, water systems and testing; pump theory and operation; fire streams and delivery equipment; fireground hydraulics and calculations; and firefighting foams and equipment.

FST 105—Public Fire Education 3-0-3
Introduces the concepts of fire prevention, with emphasis on public fire education. Inspections, code violations, and recordkeeping are reviewed as part of the six functions of fire prevention.

FST 107—Fire Protection Suppression Systems and Alarms 3-0-3
Prepares the fire science student in the use, application and testing of suppression and detection systems. Water sprinkler systems; CO2, dry chemical, Halon, foam and explosion suppression systems and flame, heat and smoke detection devices are reviewed.

FST 109—Building Codes and Standards 3-0-3
Emphasizes the usage of the BOCA Basic Building Code to attain fire-safe building designs through the use of nationally recognized standards and regulations. Surveys code enforcement and administration responsibilities, use group classifications and construction types, building limitations and special usages, egress design and materials and testing, structural loads and fire protection systems, construction terminology and architectural functions and plans.
Prerequisite: FST 101

FST 110—Fire Apparatus and Equipment 3-0-3
Acquaints fire service personnel with basic apparatus requirements, design, procurement and testing. Code requirements for portable equipment and apparatus are also discussed. Pump theory, chassis design and large-diameter hose are reviewed.

FST 112—Arson Investigation 3-0-3
Instructs fire, police, insurance and private sector personnel about the mushrooming arson and related problems confronting and impacting the entire nation today. Provides instruction in arson awareness and recognition to accomplish early detection of possible crimes and appropriate follow-up investigations.
Prerequisites: FST 101, FST 222

FST 114—Life Safety and Regulatory Requirements for Special Occupancies 3-0-3
Study of the current National Fire Protection Association Life Safety Code 101 and fire protection requirements in special occupancies such as health care, detention and corrections, educational, dormitories, hotels, apartments, board and care homes, and mercantile, business, industrial and storage occupancies. The student learns specific requirements for fire alarms, sprinkler systems, fire drills, test and maintenance of equipment and emergency lighting for these occupancy types. A study of the fire protection regulatory requirements of various Pennsylvania departments and bureaus are also covered.

FST 115—Fire Service Occupational Safety 3-0-3
Presents the requirements and procedures to effectively develop a fire department safety program. Qualifications, responsibilities, and roles of the department and incident safety officer will be reviewed. Physical fitness, training, apparatus, equipment, personal protective equipment, operations and special hazards are covered. Techniques for risk management and program auditing are presented.

FST 201—Hazardous Materials 3-0-3
Teaches principles for the control of hazardous material incidents in the manufacturing, shipping, storage, use and disposal cycle are taught. Topics include: the hazardous material incident; basic chemistry and health hazards; explosives, oxidizers and radioactive materials, cryogenics, compressed gases and flammables; the identification planning, command and decision-making processes and the various transportation modes and hazards.
Prerequisite: FST 101 and knowledge of general chemistry and basic physics

FST 209—Building Construction for the Fire Service 3-0-3
Acquaints the fire science student with the various types of existing building construction and fire's effect upon each type of material used. This includes wooden construction, ordinary construction, mill construction, 19th century "fireproof" buildings, and steel and concrete construction.

FST 211—Survey of Fire Insurance Rating and Loss Control 3-0-3
An overview is given of the insurance industry as it relates to fire insurance rating and loss control. Topics include: the insurance industry and how rates are developed; insurance company divisions; the insurance service office and municipal grading; public water supplies and suppression systems; the public fire department and loss control surveys.

FST 215—Fire Training Officer Development 3-0-3
Instructs fire training officers in the standards and procedures for the training of firefighters and recognized by national standards and agencies with instruction in: the communications process and learning principles; instructional methods; training aids and recordkeeping.
Prerequisite: FST 103

FST 216—Industrial Fire Brigades 3-0-3
A course designed to assist local industrial firms in initiating, developing and implementing the brigades which will be involved with the extinguishment or control of fires until the fire department arrives at the scene. Requirements of the OSHA regulations are reviewed as are recordkeeping, suppression systems and fire prevention activities.

FST 220—Firefighting Tactics and Command 3-0-3
Trains command personnel in the priority of operations, fire spread and behavior and decision making during emergency operations. Topics discussed include the size-up process, rescue and protection of exposures; confining and extinguishing the fire, overhauling the fire, and the procedures of salvage and ventilation.
Prerequisite: FST 104

FST 221—Firefighting Tactics and Command II **3-0-3**
Continuation of fire ground tactics and command with emphasis on large area structures, flammable liquid storage in bulk plants, high rise structures, windowless buildings and buildings under construction. Sectoring, resource management and command at large incidents are covered.
Prerequisite: FST 220

FST 222—Legal Aspects of the Pennsylvania Fire Service **3-0-3**
Acquaints advanced fire science technology students with legal problems and situations encountered with the Pennsylvania fire service. Case studies on breaking and entering, criminal trespass, assault, negligence, contracts and product liability are covered.

FST 224—Plans Review for Firefighters **3-0-3**
Study of engineering drawing principles using blueprint symbols, projections, cross-section and assembly drawings, scaling and dimensioning and use of the BOCA plan review form.
Prerequisite: FST 109

GCT–GRAPHIC DESIGN

GCT 100—Macintosh OS **1-0-1**
Students explore the unique characteristics of the Mac OS work environment from menu commands to keyboard shortcuts, file management, and organization, as well as exploring new Mac OS features, Microsoft Word, and CampusConnections. Basic typing skills recommended.

GCT 102—Acrobat Essentials **1-0-1**
An introduction to converting documents to PDF format, setting navigation for PDFs, setting security options, creating bookmarks, and adding hyperlinks and interactivity to documents using the standard for cross-platform file sharing without sacrificing the original design. Macintosh/Windows and Word skills preferred.

GCT 115—Digital Design - 2D **3-0-3**
Students explore graphic design by learning design techniques, visual thinking, concept development, color, composition, and typography through critique and hands-on exercises. Included is an introduction to Adobe© Flash and Photoshop. Students provide their own backup media and are responsible for archiving their coursework. MAC OS X or Windows XP hands-on experience preferred.

GCT 130—InDesign - Basic **3-0-3**
An introductory study of Adobe InDesign for exploring graphic design, page layout and typesetting, color usage and typography, and digital and commercial prepress requirements in the production of ads, brochures, newsletters and advertisements. Hands-on experience with MAC OS X or Windows XP preferred.

GCT 150—Illustrator - Basic **3-0-3**
An introductory course using Adobe Illustrator's powerful vector graphic tools in the creation of detailed and scalable logos, illustrations, charts, type and symbols that will work efficiently and smoothly in Adobe© Flash, InDesign, and Photoshop. Students provide their own backup media and are responsible for archiving their coursework. MAC OS X or Windows XP hands-on experience preferred.

GCT 160—Photoshop - Basic **3-0-3**
A thorough introduction to Adobe Photoshop's interface and work environment. Students will learn how to select, enhance, distort, color, scale and manipulate scanned images and artwork - and create digital images from scratch to print, media and Web communications. Students provide their own backup media and are responsible for archiving their coursework. MAC OS X or Windows XP hands-on experience preferred.

GCT 170—Maya - Basic **3-0-3**
An introductory course in 3D art and animation that explores the basics of modeling, lighting, texturing and animation using AutoDesk Maya. Students gain an understanding of the interface and capabilities of Maya, as well as basic principles of movement and models. Students provide their own backup media and are responsible for archiving their coursework.
Prerequisite: GCT 160

GCT 173—Maya - Modeling **3-0-3**
This course builds upon the concepts and techniques introduced in Maya-Basic to help students further their skills and establish a solid foundation and understanding of modeling, character setup and animation, texturing, lighting and rendering within Maya. Students provide their own backup media and are responsible for archiving their coursework.
Prerequisite: GCT 170

GCT 176—Maya-Animation **3-0-3**
Building upon the concepts, techniques and skills from GCT 170 and GCT 173, students are guided in focusing their skills on a variety of models from conception and modeling to rigging and animation displaying realistic movement. Students incorporate their rendering knowledge to output a wide range of animation techniques to disk. Students provide their own backup media and are responsible for archiving their coursework.
Prerequisite: GCT 173

GCT 199—Graphics Internship **0-12-3**
Students gain exposure and insight into the selection of occupations within the fields of creative design/marketing and commercial printing/publishing through supervised and evaluated on-the-job experience. Students select locations for their internships from college-approved sites which primarily encompass southwestern Pennsylvania. Online seminars are conducted for the students to discuss their experiences. Transportation to off-campus locations is the responsibility of students.
Prerequisite: Completion of 27 credits in GCT courses

GCT 215—Digital Design - 3D **3-0-3**
An advanced study of graphic design, digital illustration, three-point perspective layout and digital matte painting. Students create visually dynamic photo realistic solutions for product advertising and design, animation and visual effects, and background and set extensions. Students provide their own backup media and are responsible for archiving their coursework.
Prerequisite: GCT 150 and GCT 160

GCT 231—InDesign - Advanced **3-0-3**
Students expand their skills in the use of Adobe InDesign's advanced typesetting techniques, style sheets, master pages, libraries, color palettes, trapping, preflighting, and exporting EPS and PDF files for producing quality high-end output. Student provide their own backup media and are responsible for archiving their coursework.
Prerequisite: GCT 130

GCT 253—Illustrator - Advanced **3-0-3**
Students will create and edit vector-based artwork, with an emphasis on increasing productivity by mastering the pen and path tools, 3D features, typographic effects, library elements, and Web-related features, as well as the integration with Adobe Acrobat, InDesign, and Photoshop. Students provide their own backup media and are responsible for archiving their coursework.
Prerequisite: GCT 150

GCT 261—Photoshop - Advanced **3-0-3**
Advanced study of Adobe Photoshop to hone graphic skills in photomontage, illustrations, retouching, and special effects for entertainment advertising and marketing design projects. This course pushes the limits of imagination from initial concept through practical execution to become a dynamic reality. Students provide their own backup media and are responsible for archiving their coursework.
Prerequisite: GCT 160 or MED 170

GCT 270—Maya - Special Effects 3-0-3
This class is a continuation of GCT 173 Maya - Animation and introduces rendering and dynamics using characters and effects techniques. Students explore the range of special effects topics, including lighting, camera rigging, effects, particles, and rigid bodies. Students provide their own backup media and are responsible for archiving their coursework.
Prerequisite: GCT 173

GCT 285—Photoshop - Prepress 3-0-3
This course begins with an overview of print technologies and workflow. Students incorporate advanced masking and alpha channels, color correcting techniques, and special effects for producing digital and commercial print-ready images. Students explore the interaction between Adobe Acrobat, Illustration, InDesign and Photoshop and the production of TIFF, EPS and PDF files. Students provide their own backup media and are responsible for archiving their coursework.
Prerequisite: GCT 253 and GCT 261

GCT 287—Digital Workflow 3-0-3
Through lectures and hands-on exercises, students learn the technical fundamentals of producing professional-looking print publications: from understanding how printers work, to choosing file formats and fonts, specifying and separating colors, and managing the different phases of the final production workflow. Students provide their own backup media and are responsible for archiving their coursework.
Prerequisite: Completion of 27 credits in major courses.

GEO–GEOGRAPHY

GEO 155—Earth and Man 3-0-3
Interacting relationships between earth and man with special emphasis on physical geography with consideration of geography's cultural aspects.

HAC–HEATING, VENTILATION, AIR-CONDITIONING AND REFRIGERATION

HAC 101—Heating and Cooling Fundamentals 2-4-4
Introduces and explores the mechanical refrigeration cycle as it applies to residential and light commercial refrigeration, heating and air-conditioning equipment. Individual components and controls as they relate to equipment and systems are covered in both the classroom and lab. Students will learn to use HVAC&R hand tools, power tools, gauges and meters to troubleshoot and repair HVAC&R equipment.

HAC 150—Psychrometrics and Load Estimation 3-0-3
This course comprises a study of heat loss and heat gain factors. HVAC&R equipment sizing and selection are covered using ACCA manuals as well as computer sizing and selection software. The study of the properties of air, measurement of air and its effects upon human comfort are also studied.

HAC 170—Heating, Air-Conditioning, and Refrigeration Control Systems 2-2-3
Provides a fundamental understanding of electrical, pneumatic and electrical control circuits as applied to refrigeration, heating and air-conditioning systems. Reading and understanding ladder and schematic diagrams are covered in detail. Troubleshooting circuits using electrical meters and pressure gauges are emphasized in labs. Installation and replacement of controls are also covered.
Prerequisites: ELC 105, 110, HAC 101

HAC 199—Heating, Ventilation and Air-Conditioning & Refrigeration Internship 1-12-3
Students will obtain experience in the heating, ventilation, air-conditioning and refrigeration industry through a combination of occupational instruction and on-the-job training. This course integrates classroom occupational study with a planned supervised practical work experience.
Prerequisite: Permission of instructor

HAC 230—Air Distribution and Codes 2-2-3
Covers design and installation of air-conditioning and heating duct systems for residential and commercial applications. Duct selection and sizing will be studied using ACCA Manual D and computer duct sizing software. Friction charts and duct calculators will be used to aid in the duct design process. Basics of mechanical code will also be examined.
Prerequisite: HAC 101

HAC 240—Sheet Metal for Heating, Air-Conditioning & Refrigeration 2-4-4
Designed to aid the installer in the skills and techniques necessary to layout, fabricate and install ductwork for residential and commercial HVAC systems. Sheet metal and fiberglass ductboard fitting, identification and fabrication are covered. Venting systems and combustion air inlet fabrication and installation are also examined.
Prerequisite: HAC 101

HAC 250—Air-Conditioning I 2-4-4
Residential and commercial heating and air-conditioning equipment installation, operation, troubleshooting and repair are covered in detail. Classroom theory and hands-on labs offer students an understanding of the concepts needed to become HVAC&R technicians. Field site visits to HVAC wholesalers and construction projects are included in this class.
Prerequisite: HAC 101

HAC 255—Air-Conditioning II (Heat Pumps) 2-4-4
Covers the reverse-cycle air-conditioning heat pump. Air source and ground source heat pump system design, installation, troubleshooting and repair are examined. Heat pump control operation, check-out and replacement are covered. Field and lab work on various heat-pump systems are included.
Prerequisite: HAC 250

HAC 260—Hydronics 2-4-4
Covers gas, oil and electric hot water and steam boiler operation, selection, maintenance troubleshooting and repair. Piping systems and fitting selection for boilers and chillers are examined. Residential and commercial system testing, adjusting and balancing are studied as well.
Prerequisite: HAC 250

HAC 270—Residential Plumbing 2-4-4
Encompasses a basic understanding of residential plumbing. Areas to be covered are: plumbing codes, plumbing system design, installation, water and gas piping, worker safety, troubleshooting and repair procedures.

HAC 280—Residential Wiring 2-4-4
Provides the student with an understanding of residential wiring. Areas to be discussed include: electrical safety, design of residential electrical load requirements, National Electrical Code Standards, troubleshooting and repair, installation of wiring, and devices such as entrances, breaker boxes, switches, receptacles and equipment.

HAC 290—Refrigeration Recovery 3-0-3
Designed for students who need training in the proper handling of refrigerants. This course covers proper refrigerant handling and recovery procedures necessary to work in the RHVAC industry. Refrigeration chemistry, containment, labeling, transportation and recovery are studied. Government regulations dealing with proper refrigeration practices as well as industry standards will be examined.

HIS–HISTORY

HIS 155—Early Western Civilization 3-0-3
A survey and analysis of western civilization from its origin through the 17th century. Major political, social, economic and cultural trends and their influence on modern civilization are examined.

HIS 156—Modern Western Civilization 3-0-3
A survey and analysis of western civilization from the 18th century to the present. Nationalism, industrialism, imperialism and major intellectual and social developments are emphasized.

HIS 249—The Civil War **3-0-3**
A survey and analysis of the American Civil War and Reconstruction. This course is a study of the origins and causes of the war, the nature and direction of the war itself, and its results and consequences. Particular attention is given to economic, social, political, military and ideological aspects of the American Civil War.

HIS 255—Early U.S. & Pa. History **3-0-3**
A survey course in United States history from the discovery of the New World to the close of the Civil War. The story of our American heritage told against the backdrop of revolution, expansion, nationalism, industrial growth and sectional strife.

HIS 256—Modern U.S. & Pa. History **3-0-3**
A survey course in United States history from the end of the Civil War to the present. Examination of political, social, economic, and cultural trends with emphasis on the impact of reconstruction, industrialism, progressivism, isolationism, imperialism, conservatism and liberalism.

HIS 257—The World in the 20th Century **3-0-3**
An introduction to the history of the world in the 20th century. This course examines the forces which have produced significant changes in the modern world and integrates the experiences of Asia, Africa and Latin America with that of Europe and America. An assessment is made of the impact of war, peace, racism, nationalism, imperialism, ideology, religion and family upon the peoples and cultures of the 20th century.

HMS–HUMAN SERVICES

HMS 155—Introduction to Human Services **3-0-3**
An introduction to the human services system in the United States. The course will examine how services are developed and provided within both the public and private sector. Students will learn about services to specific target populations in their local area. Students will also learn about career options in the human services field through study and contact with area human services professionals. Information about the personal characteristics, skills and knowledge needed by human service workers will be included in the course. Current topics related to social problems, the use of technology and funding of services will be discussed.

HMS 156—Communication for Human Service Workers **3-0-3**
An introduction to the theories and practices of basic communication skills focusing on interpersonal communication in the helping services. The course is interactive, providing students the opportunity to practice skills.

HMS 157—Interviewing and Recordkeeping Skills **3-0-3**
A follow-up course to HMS 156 with an emphasis on individual interviewing skills in the helping services. This is a key course in the human services program as it teaches essential information gathering and recording skills for the human services worker. It is a very interactive course with much time devoted to practicing interviewing skills with classmates. Recordkeeping skills include learning to distinguish between objective and subjective information, how client files are organized and the methods used to compile a client history and assessment.
Prerequisite: HMS 156

HMS 160—Group Process **3-0-3**
This course provides the basic knowledge needed to be an effective group leader and member. Emphasis is on practical application of group process skills.
Prerequisite: HMS 156

HMS 162—Problem Solving and Counseling Skills **3-0-3**
This course is a follow-up to Interviewing and Recordkeeping Skills. It will teach the student basic counseling and problem solving techniques used in human services.
Prerequisite: HMS 157

HMS 170—Racial and Ethnic Minorities **3-0-3**
This course provides the student with an overview of cultural diversity and the issues that the various ethnic minority groups experience in the U.S.A. The course examines the nature of prejudice and discrimination. The history and role of the U.S.A. of specific ethnic groups are examined. Guest speakers from a variety of social justice and ethnic groups are invited to participate in the class.
Prerequisites: PSY 160, SOC 155

HMS 171—Introduction to Gerontology **3-0-3**
This course provides an introduction to the biological, psychological and social issues facing the aging population. Students will learn the various stages and cycles of aging and how society views and provides services to older adults. Requires interviews with older adults and contact with service providers.

HMS 172—Drug and Alcohol Dependency **3-0-3**
Explores the causes and the physiology of substance dependence. Also focuses on the therapies used to encourage clients to abstain from using drugs or alcohol.

HMS 258—Human Services Practicum I **2-8-4**
Under the supervision of a qualified human services provider, students will gain field experience in an area of interest. In this seminar class, students will discuss ethical and current practice issues related to work in the human services field. The importance of professional behavior and the value of networking within the human services field are emphasized.
Prerequisites: HMS 155, HMS 157 and permission of instructor

HMS 259—Human Services Practicum II **2-8-4**
Includes activities of Practicum I and further develops the student's knowledge of the role as a human service provider. Included in the seminar will be activities related to fundraising and community activism.
Prerequisite: HMS 258 with a grade of C or better, 2.0 QPA required and permission of instructor

HMT–HOTEL/MOTEL MANAGEMENT

HMT 160—Executive Housekeeping and Front Office Procedures **3-0-3**
Covers interoperations of the front office desk and the executive housekeeping departments. Duties and responsibilities of each department and the correlation of these areas to assure management control are presented. Additional topics include such areas as booking reservations, room maintenance and costs, and training of personnel for these areas.

HMT 161—Recreational and Entertainment Management **3-0-3**
Designed to serve as a study of the needs and management of recreational and entertainment facilities common to lodging operations. Maintenance, staffing, marketing and principles of cost controls as they apply to recreation will receive emphasis. Transportation to off-campus locations is the responsibility of the student.

HMT 170—Casino/Gaming Operations **3-0-3**
Identifies the current and future trends affecting the industry. This course also investigates regulations, social and economic impact, and actual operations of casino/gaming facilities. Transportation to off-campus locations is the responsibility of the student.

HMT 262—Lodging and Property Management **3-0-3**
Presents management of hospitality property in the physical aspect, its incumbent problems and utilization of staff and methodology to maintain facilities operation at peak efficiency. Physical maintenance, staffing patterns, training, capital investments, cost analysis, building and equipment renovation and replacement, and job/task analysis are additional areas of concern.

HMT 264—Convention and Meeting Management **3-0-3**
Designed to provide students with the information essential for planning meetings, conventions and other such functions in today's hospitality industry. Discussions include meeting rationale, planning, directing, controlling and evaluating. Students are acquainted with major convention bureaus, cities, hotels and resorts.

HON–HONORS

HON 295, 296, 297, 298—Honors Seminar **3-0-3**
Honors Seminar is a unique type of college course. In this course, the student will design, implement, edit, produce, and report on a project that the student has designed in consultation with a faculty mentor. The project, as described when the student was recruited to participate, is a topic of his or her own choosing. This topic of interest and concentration is one that enlarges on an honors project then allows the student to enrich his or her knowledge in an area of concentration while also engaging in further development of the techniques of research and writing. The key to success in an Honors Seminar course is self-discipline and self-direction in performing the necessary level of work to complete the chosen project. The faculty mentor provides support and guidance as needed. Honors Seminar enriches not only the student's academic experience but their personal sense of accomplishment and autonomy as well.

HOR–HORTICULTURE

HOR 105—Introduction to Horticulture **3-0-3**
Surveys the broad area of horticulture and gives general treatment to vegetable and fruit production while treating ornamental horticulture and plant growth and development in more depth.

HOR 107—Landscape Drawing **2-2-3**
Introduces the proper use of drafting equipment, printing techniques, and scale drawing. This course prepares students for designing landscapes and landscape structures.

HOR 109—Landscape Equipment and Structures **2-2-3**
Focuses on selection, operation, and maintenance of tools and equipment used in landscape and turfgrass installation and maintenance. Treatment is also given to terraces, retaining walls, and similar structures.

HOR 110—Introduction to Turfgrass Management **2-2-3**
This course is an introduction to basic turfgrass principles. It covers the basic theory of plant growth and development. It also covers the major factor in turfgrass needed to produce quality grass.

HOR 115—Turfgrass Equipment Mechanics I **2-2-3**
A study of the basic principles of mechanics of golf course equipment including small and multi-cylinder engines, electric motors, power trains, hydraulic drives and controls.

HOR 116—Turfgrass Equipment Mechanics II **2-2-3**
A study of diagnosis procedures in troubleshooting and repairing turfgrass maintenance equipment. Studies will also include welding, painting and overhauling equipment.
Prerequisite: HOR 115

HOR 125—Ornamental Shrubs **2-2-3**
Covers the characteristics, identification, utilization, and care of commonly used ornamental shrubs.
Prerequisite: HOR 105

HOR 126—Ornamental Trees **2-2-3**
Covers the characteristics, identification, utilization, and care of commonly used ornamental trees.
Prerequisite: HOR 105

HOR 150—Specialized Turfgrass Management **2-2-3**
This course is designed to build on the basic principles of turfgrass science and apply those principles to golf course turfgrass management principles. This course also covers the proper management techniques used in turf areas on recreational and athletic fields.
Prerequisite: HOR 110

HOR 155—Soils and Soil Fertility **3-2-4**
Stresses soil improvement and maintenance. Consideration is given to soil modification, improving and maintaining fertility, fertilizers, and amendments.
Prerequisite: CHM 105

HOR 157—Insects and Diseases of Plants **3-2-4**
Covers the identification, prevention, and control of significant diseases, insects, and other pests of landscape and turfgrass plants. Consideration is given to pest control through variety and type selection and their environmental adaptation.
Prerequisite: BIO 145

HOR 170—Floral Design and Arranging **1-4-3**
Students learn theories about flower arranging and practical skills for designing and making different types of flower arrangements including wedding bouquets, funeral flower baskets, etc.

HOR 199—Horticulture Internship **1-12-3**
A supervised work experience in a horticulture enterprise where students apply their landscaping skills.
Prerequisite: Permission of instructor

HOR 205—Residential Landscaping **2-2-3**
Designed to allow students to combine their landscape drawing and plant materials knowledge in developing small properties and residential plans.
Prerequisites: HOR 107, HOR 125

HOR 207—Advanced Landscaping **2-2-3**
A continuation of HOR 205. Requires students to extend their skills in designing larger properties such as malls, parks, institutional grounds, and courtyards.
Corequisite: HOR 205

HOR 210—Plant Propagation **2-2-3**
Discusses various plant propagation methods including seed propagation, grafting, budding, layering, cutting, division, topping, and tissue culture, etc. Class will focus on the propagation of plants widely used in landscaping.
Prerequisite: HOR 105

HOR 212—Pruning **2-2-3**
Deals with the functions, principles and techniques of pruning. Emphasis will be given to pruning ornamental trees and shrubs as well as fruit trees and vines.

HOR 215—Annuals and Herbaceous Perennials **2-2-3**
Introduces students to selection, identification, utilization, and care of significant annuals and herbaceous perennials used in the landscape.

HOR 235—Vegetable Gardening **2-2-3**
Includes coverage of popular vegetables grown in the home garden as well as garden site preparation and location in the landscape.

HOR 241—Greenhouse Management **2-2-3**
Designed for students to learn about the different types of greenhouses, heating, cooling, environmental control, energy conservation and the use of plant growth regulators in greenhouse production.

HOR 260—Interior Plants **2-2-3**
This course introduces students to the selection, identification, propagation, utilization, and care of plants commonly used in interior plantscaping.

HOR 265—Interior Plantscaping **2-2-3**
Introduces students to the concept of interior plantscaping. The principles of design, installation, and maintenance in interior plantscaping will be discussed.
Prerequisite: HOR 105

HOR 270—Floriculture **2-2-3**
This course deals with the production of the most important greenhouse crops. Emphasis will be given to the productions of chrysanthemums, Easter lilies, poinsettias and bedding plants although many other plants will also be discussed. This course introduces students to the concept of interior plantscaping. The principles of design, installation, and maintenance in interior plantscaping will be discussed.
Prerequisite: HOR 105

HOR 280—Landscape Installation and Maintenance **2-2-3**
This course deals with the installation and maintenance of landscape plants. It introduces different ways of planting trees, shrubs and herbaceous plants, and ways of starting new lawns. Also covers maintenance practices for new and existing landscapes. In addition to the skills and practices, this class goes into the science behind the cultural and maintenance practices commonly employed in the industry.

HOR 289—Turfgrass Management Internship I **1-12-3**
This course gives students an opportunity to use the knowledge and skills learned in other classes in a career setting. Students gain real-life work experiences and practical knowledge through working as an employee of a turf-related business such as a golf course, a lawn care company or a sports facility.
Prerequisite: Permission of instructor

HOR 299—Turfgrass Internship II **1-12-3**
This course gives a student the ability to apply advanced knowledge in a real world working environment. Students will gain valuable knowledge working under the direction of turfgrass specialists.
Prerequisite: HOR 199

HPE–HEALTH AND PHYSICAL EDUCATION

HPE 156—Health and Physical Education **2-2-3**
Lectures deals with wellness, exercise, nutrition, tension control and mental health, sexually transmitted diseases and HIV prevention, cancer and heart disease prevention, date rape awareness, alcohol and drugs, and injury treatment as they relate to a preventative medicine lifestyle. Concepts stressed are flexibility, strength, aerobic exercise, heart and cancer disease and risk factors, proper nutrition, stress management techniques, STD and HIV prevention. In the lab, a pre- and post-fitness evaluation is performed. An individually prescribed exercise program is performed twice a week.

HPE 157—Perspectives in Health **3-0-3**
Examines today's health issues and presents contemporary approaches to maintaining good health. Focuses on such topics as stress, hypertension, nutrition, depression, smoking and sexually transmitted diseases.

HPE 176—Aerobics/Weight Training **0-2-1**
Teaches the correct approach to physiological conditioning of the cardiovascular and muscular systems. Examines proper frequency, intensity and duration of these activities. Nutritional concepts are discussed while students improve cardiovascular, strength, and flexibility fitness levels. Percentage of body fat should also respond to the course.

HPE 178—Fundamentals of Golf **0-2-1**
Teaches the fundamentals to play recreational golf. The proper grip and swing are emphasized along with stance, equipment selection, rules and scoring. Effective strategies of long and short play and golf etiquette will be stressed.

HUM–HUMANITIES

HUM 156—Critical Thinking **3-0-3**
Designed to show an order associated with the learning process. Observation and listening skills are developed as an introduction to critical thinking. Relationship between observation, interpretation, perception and generalizations are considered. Critical thinking and analysis to reach reasonable end points are developed by applying necessary skills to a variety of written and oral topics.

LAS–LEGAL ASSISTING

LAS 101—The Legal Assistant **3-0-3**
A survey of the legal environment including duties, limitations and ethical constraints of legal assistants, professional responsibilities and expectations, sources and relationship of the various bodies of law, along with the structure of national government and the court system. The course will examine substantive areas of law, including torts, contracts, property law, domestic relations, estates and trusts, and business law.

LAS 111—Legal Analysis **3-0-3**
An introductory level course designed to equip the student with the basic skills of legal analysis and research. The student will be exposed to legal analysis in the form of reading, synthesizing, and abstracting judicial opinions; various methods of legal research, including use of the Uniform System of Citation, legal publications and reporters and Shepard's Citations will be explored.

LAS 115—Torts **3-0-3**
A study of the concept of civil wrongs and their treatment in law, to include the intentional torts, negligence and strict liability as applied to persons, property and business. Specific topics to be considered include negligence, strict liability, products liability, intentional torts including assault, battery, defamation, nuisance, and defenses to tort actions.
Prerequisites: LAS 101, LAS 111

LAS 120—Estates and Trusts **3-0-3**
A study of law pertinent to wills, estates and trusts, including intestate succession, will drafting and execution, codicils, uses and effect of different types of trusts, the probate process and distribution. Relevant state statutes will be utilized as well as practical application of materials dealt with.
Prerequisites: LAS 101, LAS 111

LAS 125—Litigation I **3-0-3**
A survey of the process of pursuing a civil action through the legal system. Topics include choice of courts, jurisdiction, venue, pleading and related motions, discovery, pretrial actions, preparation, and trial and appellate procedures. Emphasis will be on the legal assistant's role in gathering and organizing materials; interviewing and investigating; drafting complaints, answers, interrogatories, pleadings; the trial notebook; and assisting during the trial.
Prerequisites: LAS 101, LAS 111

LAS 140—Domestic Relations **3-0-3**
A study of laws affecting family-related matters such as marriage, divorce, separation, child custody/support, adoption and guardianship.
Prerequisites: LAS 101, LAS 111

LAS 150—Contracts **3-0-3**
An introduction to the law of contracts, including offer, acceptance, consideration, performance, breach, and damages. A general theoretical discussion is supplemented with specific concentrations in contract law proceedings.
Prerequisites: LAS 101 or BUS 205 and LAS 111

LAS 155—Corporations **3-0-3**
An introduction to the basic concept of business organizations, including statutory requirements for formation and operation of general and limited partnerships, sole proprietorships, joint ventures, limited liability companies and the various forms of corporations.
Prerequisite: LAS 101

LAS 160—Bankruptcy Law **3-0-3**
A study of the laws governing the bankruptcy process, including voluntary and involuntary petitions, liens, preferences, powers of trustee, rights of creditors, liquidation, and the discharge of bankruptcy. Students will utilize knowledge and skills acquired to prepare a Chapter Seven Bankruptcy Petition.
Prerequisites: LAS 101, LAS 111

LAS 175—Property Law **3-0-3**
An introduction to the law of property, both real and personal. The historical concept of property ownership, transferring of ownership and rights of ownership will be examined. The course will include an in-depth examination of the real estate transaction and necessary documentation, a "hands-on" approach to the title examination, and examination of zoning and other restrictions on land use.
Corequisite: LAS 101

LAS 200—American Constitutional Experience **3-0-3**
A study of the development of our system of government, from the theories and factors involved in creating our Constitution, to the powers of government granted under it. The development of individual rights and liberties as guaranteed by the Constitution will be examined with reference to the interpretation of the Constitution and Bill of Rights by the U.S. Supreme Court.

LAS 210—Legal Writing **3-0-3**
An introduction to the types of research sources, procedures and case documentation for which the legal assistant is typically responsible. Students will learn to prepare common legal documents and develop written briefs for attorneys based on their research.
Prerequisites: ENG 161, LAS 111

LAS 215—Legal Research **3-0-3**
A continuation of LAS 210. The student will be required to complete several major research projects as part of the course, including interoffice memoranda and trial and appellate briefs.
Prerequisite: LAS 210

LAS 225—Litigation II **3-0-3**
A continuation of LAS 125. The course will emphasize a practical application of the skills gained in Litigation I. Students will be involved in the preparation of documents usually associated with the litigation process.
Prerequisite: LAS 125

LAS 293—Internship **1-12-3**
Supervised experience in legal agencies that provide the student with the opportunity to apply legal assistant theory and skills while performing tasks in the legal assistant profession.
Prerequisites: LAS 215 and QPA of 2.0 or better

LIS-LIBRARY SCIENCE

LIS 100—Introduction to Library Science **3-0-3**
Library science is a course designed for the profession of librarianship. It is a profession devoted to applying theory and technology to the creation, selection, organization, management, preservation, dissemination, and utilization of collections of information in all formats.

LIS 110—Introduction to Library Cataloging and Classification **3-0-3**
This course is an introduction course on library technical services, focusing in particularly on library classification systems, with emphasis on LC and Dewey Decimal Classification systems. This will incorporate identifying and creating LC subject headings, creating MARC records, and deciding when to use copy cataloging or when to create original cataloging records.

LIS 120—Information Sources and Services **3-0-3**
This course provides an introduction to reference resources - both print and non-print, including selection criteria and the use of selection tools. Also included is the organization and delivery of references services, including the reference interview.

LIS 130—Collection Development and Materials Selection **3-0-3**
This course provides students with an understanding and working knowledge of the processes and procedures involved in developing and maintaining library collections. It addresses the topics of selection, evaluation, policy development, weeding, and censorship.

LIS 140—Library Administration **3-0-3**
This course addresses the organization and management of libraries. It includes the study of budget preparation, general management and supervision techniques and procedures, decision-making, planning, human resources issues, and facilities and equipment related to library use, ADA regulations, and managing technology.

MAS-MEDICAL ASSISTING

MAS 100—Introduction to Medical Assisting **3-2-4**
Introduces the student to the role of the medical assistant in a variety of patient care settings. Develops communication skills directed toward the role of the medical assistant in receiving, organizing, prioritizing and transmitting information. Develops interviewing skills for obtaining patient histories. Provides an ethical framework in which the medical assistant functions within the health care setting. Acquaints the student medical assistant with the process and requirements for certification.

MAS 105—Administrative Procedures **2-0-2**
Establishes a legal framework related to the duties of the medical assistant. Appropriate documentation of patient information is taught and guidelines are presented for the handling of patient record information. Confidentiality is stressed. Procedures for disposing of controlled substances in compliance with government regulations are addressed. Offers the student an opportunity to understand acceptable practices related to initiating and terminating medical treatment. Emergency office procedures are taught.
Prerequisite: MAS 100

MAS 110—Clinical Procedures **3-2-4**
Covers theory and practical applications of asepsis, medication administration, lab and specimen collection and processing, vital signs, venipuncture, EKG, and preparation of the patient for examination and treatment. The laboratory component of this course provides the student with the opportunity to practice selected skills related to the clinical procedures.
Prerequisite: MAS 100

MAS 120—Practicum **0-15-3**
This course provides a supervised clinical placement to practice the administrative and clinical skills necessary to function as a medical assistant in a physician's office and other designated medical settings. Administrative skills include receptionist duties and appointment scheduling, medical correspondence, record handling, medical transcription, maintaining patient accounts, billing and processing insurance claims. Clinical skills include patient preparation and assisting with diagnostic and surgical procedures, examination assisting, specimen collection and processing, performing basic office diagnostic procedures, medication administration, and aseptic technique.
Prerequisite: MAS 110

MED–MULTIMEDIA AND PHOTOGRAPHY

MED 103—Podcasting Basics **1-0-1**
This introductory course covers the basics of Internet podcasting. Students will learn how to manage audio and video for iPods and download podcasts for use on devices capable of playing MP3s. How to setup a podcasting studio, utilize music and video inexpensively and legally will also be covered.

MED 105—Multimedia Basics **3-0-3**
An introductory level course exploring Apple's iLife software package. Students will produce basic iVideo, iPhotos, iTunes, and iDVD for use on the Web. Students studying web design and multimedia will find this class of value.

MED 110—Digital Presentation **3-0-3**
Introduces the planning and production of visual presentation programs using presentation software. Emphasis is placed on digital computer generated methods of presentation. Input/output devices such as DVD, CD-ROM, laser printers and flatbed scanners are employed in the design and development.

MED 155—Introduction to Multimedia 3-0-3
An introductory course in the exploration of current and past media. Topics include television, radio, recordings, newspapers, magazines, books, movie industry, and other current trends in multimedia technology.

MED 156—Television Production I 2-2-3
Course introduces multi-camera digital video production. Students will learn basic camera operation and principles of studio-based live-switched productions. Basic lighting procedures and fundamental editing, scripting and storyboarding will be presented. Media students with an interest in live television, like news and sports, will find this course useful.

MED 158—History of Cinema 3-0-3
Surveys the development of cinema from its technological origins in the 19th century through its growth as an international medium and an analysis of various film genre.

MED 159—Basic Video Production 2-2-3
MED 159 introduces digital, single-camera video production. Students will learn basic camera operation and use of nonlinear editing. Basic lighting procedures and fundamental scripting/storyboarding will be presented. Students, such as education majors, wishing to incorporate video instruction as an additional means of communication within their classroom may find this class of interest.

MED 160—Basic Photography 2-2-3
A basic course in digital camera use and operation. This course also covers the history of photography, basic digital darkroom, lighting and composition. Digitally oriented with selected projects and exercises to develop digital camera and darkroom skills. Students must have access to a digital camera.

MED 161—Portrait Photography 2-2-3
Course introduces students to basic portrait types. Fundamental lighting set-ups will be examined. Basic instruction in the use of the medium format digital camera will be used to create images both in the studio and of an environmental nature.

MED 170—Digital Photography 3-0-3
This course covers the basic operation of digital camera systems, including computer-based image editing, retouching and enhancement. Adobe Photoshop software is used to produced state-of-the-art images. Students will learn the use of peripheral devices to scan digital images. Basic studio lighting as it applies to digital photography is also explored.

MED 180—Soundtrack Pro 3-0-3
Students will use Apple's audio software to edit sound for use in DVD and nonlinear video projects. Analysis, repair of common audio problems, mixing and adding effects are some of the topics covered using this digital software.

MED 199—Internship 1-12-3
Obtain on-the-job experience in the media industry through working in an operating establishment under the supervision of management personnel. Seminars are conducted for students to discuss their experiences. Students are responsible for transportation to their off-campus sites.
Prerequisite: Permission of instructor and completion of 30 credits in major course requirements

MED 200—Portfolio Development 2-2-3
Review of existing student work and development of additional pieces into a viable self-sales tool for seeking employment. Elements will include: prints/slides, video/audiotape, computer-based presentation and DVD. Assignments will update print and/or multimedia portfolios toward a specific career endeavor. Basic methods of job marketing and self-promotion will be examined. Students will utilize prior lab experience to work independently and collaboratively in the production of requirements.
Prerequisites: MED 265 and MED 170

MED 205—Final Cut Pro I 3-0-3
This is an introductory level course using the computer as an editing tool. Students utilize Apple Final Cut Pro nonlinear editing software to produce various assignments. Editing procedures encompassing video, audio, and still imagery will be employed. Students must have a digital video camera and external hard drive.

MED 206—DVD Studio Pro 3-0-3
Introductory study using software such as DVD Studio Pro, Final Cut Pro and Photoshop to design and produce interactive DVDs for training, education, kiosks and corporate use such as sales. A continuation of MED 205 that incorporates screen design with interactive navigation, sound, text, graphics, photographs and video.
Prerequisite: MED 205

MED 210—Final Cut Pro II 3-0-3
A continuation of MED 205, Final Cut Pro I. Emphasis is on nonlinear Apple Final Cut Pro video editing software. Advanced effect techniques are used to animate, change speeds, apply color corrections and composite images.
Prerequisite: MED 205

MED 212—Motion 3-0-3
This course focuses on the creation of animated text, shapes and special motion effects to create motion video graphics. Students will learn the basics of filter and behavior application to create motion graphic clips for use in Final Cut Pro and DVD Studio Pro.
Prerequisites: MED 205 and MED 210

MED 240—Audition 3-0-3
Students will use Adobe's Audition software to incorporate sound for use in DVD and nonlinear video projects. Basic audio mixing, use of effects and clip arrangement within timelines will be covered.

MED 250—Premiere Pro 3-0-3
Using Adobe Premiere Pro, students will produce Windows-based digital video for use in non-broadcast and DVD.

MED 255—Public Relations 3-0-3
Covers corporate and non-profit public relations, its development, definitions, practice and tools. Utilization of the electronic and print media as a means of enhancing corporate image will be addressed through individual and collaborative assignments.

MED 256—Advertising 3-0-3
A fundamental overview of advertising with an emphasis on researching, developing and implementing advertising campaigns. Class projects use electronic and print media to explore the many different facets of advertising. This course is the same as COA 256-Advertising.

MED 257—Television Production II 2-2-3
This course covers video field production techniques and production. Nonlinear editors and digital video cameras are used to digitally produce student projects and assignments.
Prerequisite: MED 156

MED 260—Encore 3-0-3
Adobe Encore software is used to produce Windows-based DVDs. Elements of audio, video, and special effects are incorporated into DVD projects. Students should have nonlinear editing and audio classroom experience prior to attempting this course.
Prerequisite: MED 250 and MED 240

MED 263—Photojournalism 2-2-3
Photojournalism is an intermediate study in technique and production of images for newspapers, magazines and Internet. A continuation of MED 170 and 205 incorporating digital images used for publication.
Prerequisite: MED 170 and MED 161 or MED 265

MED 265—Color Photography 2-2-3
Covers the technical aspects of camera exposure and darkroom procedures essential to working with color digital materials and processes. Digital darkroom technique and machine processing of various color print and film materials is utilized extensively throughout the course.
Prerequisite: MED 160

MED 266—Studio/Location Photography 2-2-3
Instructs students in studio and location situations as they apply to commercial digital photography. Studies encompass elements of lighting techniques and examination of the medium and large format camera to create images while working from a layout. Portfolio assignments develop skills in illustrative, industrial, architectural, and fashion areas of photography.
Prerequisite: MED 161 or MED 265

MED 270—Premiere Pro II 3-0-3
Students will use Adobe Premiere Pro II to create advanced digital video for use in interactive DVD as well as commercial/industrial projects.

MED 271—Advanced Digital Photography 3-0-3
This is a continued exploration of digital camera systems. Advanced computer-based image manipulation and retouching will be covered using Adobe Photoshop software to produce creative, state-of-the-art portfolio intended images. Studio set-up and lighting instruction will allow students to develop personal digital pieces.
Prerequisite: MED 170

MED 290—After Effects 3-0-3
Emphasis on using Adobe After Effects to incorporate animated, visual, special-effects into Windows-based digital video and DVD projects. Students should have nonlinear editing experience prior to attempting this course.
Prerequisite: MED 250

MET–METALLURGY

MET 105—Welding Metallurgy 3-2-4
A study of the manufacturing of metals and alloys, emphasizing their properties as to weldability. Demonstrates in the use of tensile testor, impact testor, metallograph, metallurgical microscopes and polishing techniques. Also included is the advanced study of properties of metals and alloys with particular emphasis on practical plant problems and processes. Includes a study of heat treatment, casting, plating and rolling. Laboratory studies will include emphasis on the above material.

MKT–MARKETING

MKT 199—Marketing Internship 1-12-3
Students will gain exposure and insight into the marketing/retail industry through supervised and evaluated on-the-job experience. Students will select locations for internships from instructor-approved business sites in southwestern Pennsylvania. Seminars will be conducted weekly for students to discuss their experiences.
Prerequisite: 18 completed credits

MKT 242—Retailing 3-0-3
Principles of retailing as applied to the retailing activities of location, organization, human resources, buying, inventory control, selling, services, expenses and profits.

MKT 251—Consumer Behavior 3-0-3
This course is a comprehensive attempt to understand why people buy things and to appreciate how products, services and consumption activities contribute to the broader social world we experience. Progressive ideas on e-commerce and globalization are presented. Cross-cultural examples are discussed within a framework of marketing theory and strategy.

MKT 252—Public Relations 3-0-3
The purpose of this course is to introduce students to the concepts of effective public relations and prepare them to deal with the situations and arrive at the solutions that distinguish the practice of communication in a world experiencing the unbridled growth of the Internet. At the same time, the integration of the relationship among agencies, clients and the media is incorporated along with the practice and management of public relations.

MKT 253—Global Marketing 3-0-3
This course introduces the student to the principles and practices of global marketing. Emphasis will be placed on the strategic use of the Internet to successfully interact socially, culturally and environmentally in global markets. A strategic environmental approach is employed to outline the major dimensions of the social foundation and financial environment needed to apply basic marketing principles to global business practices.

MKT 254—Advertising and Promotion 3-0-3
Studies the basic facets of advertising including its planning, creation and implementation. Course emphasis is on the development of advertising strategies to meet the challenges of marketing situations. Students investigate the process of budget planning, the practical application of marketing research to the creation of advertising campaigns, media planning, and the coordination of media advertising and promotional techniques as part of the overall marketing strategy of a business enterprise.

MPT–MANUFACTURING TECHNOLOGY

MPT 100—Programmable Logic Control I 3-2-4
Introduces students to the fundamental industrial processes and their control. This course will also include design, function and applications of various industrial controllers.

MPT 112—Introduction to Design, Materials and Processes 3-0-3
Focuses on the study of design, materials and the primary processing methods used in manufacturing. A practical course devoted to the many ways in which raw materials are economically converted into useful products. Discussions of primary processing methods - materials additions, removal and change - are grouped together, followed by coverage of applications. Properties of various materials will be covered. Students first build a thorough knowledge of similarities and differences in materials, then processing methods, and that foundation carefully sets the stage for an understanding of how to choose the optimal processes for a specific project.

MPT 121—Manufacturing Maintenance Apprenticeship I 1-40-2
A supervised and evaluated on-the-job training experience designed to provide practical application of the skills and methodology of manufacturing maintenance.

MPT 122—Manufacturing Maintenance Apprenticeship II 1-40-2
A supervised and evaluated on-the-job training experience designed to provide practical application of the skills and methodology of manufacturing maintenance.

MPT 123—Manufacturing Maintenance Apprenticeship III 1-40-2
A supervised and evaluated on-the-job training experience designed to provide practical application of the skills and methodology of manufacturing maintenance.

MPT 170—Industrial Chemistry I 2-2-3
An introduction to the principles of statistical process control, industrial hygiene, safety and preventative maintenance in the chemical industry. The study of energy systems and their utilization in chemical processing is also considered.

MPT 171—Industrial Chemistry II 2-2-3
Introduction to the procedures, equipment and techniques used in industrial labs. Safety is stressed throughout the course. Additional applications of maintenance and the troubleshooting of equipment is demonstrated.

MPT 199—Manufacturing Process Technology Internship 1-12-3
Students will obtain experience in the manufacturing process technology field through a combination of occupational instruction and on-the-job training. This course integrates classroom occupational study with a planned supervised practical work experience.
Prerequisite: Permission of instructor

MPT 200—Programmable Logic Control II 3-2-4
Introduces students to the basic concept of automated manufacturing systems including drive mechanisms and sensing devices. This course will give students a background in today's flexible systems.
Prerequisite: MPT 100

MPT 201—Programmable Logic Control III 2-2-3
Introduces students to automated-manufacturing system troubleshooting. This course is designed to give students practical experience in problem-solving and applications.
Prerequisite: MPT 200

MPT 209—Instrumentation & Process Control 3-2-4
Investigates the electronic techniques that are used for measurement and control in process control systems. Closed-loop systems including transducers, signal conditioning and analog and digital controllers will be considered. The overall objective is to prepare graduates to install, adjust and maintain electronic and related parts of commercial and industrial systems.

MPT 211—Material, Safety and Equipment Overview for Nanofabrication 2-2-3
The course will provide an overview of basic nanofabrication processing equipment and materials handling procedures. The focus is on procedural, safety, environment and health issues in equipment operation and materials handling. Topics to be covered will include: cleanroom operation, safety and health issues; vacuum pump systems, operation, environmental, safety and health issues (covering direct drive mechanical, roots blowers, turbonmolecular, and dry mechanical systems); furnace operation, safety, environmental and health issues (covering horizontal, vertical, rapid thermal annealing tools); chemical vapor deposition system operation, safety, environmental and health issues (covering gas delivery, corrosive and flammable gas storage and plumbing, regulators, and mass flow controls); and vacuum deposition/etching system operation, safety environment and health issues covering microwave and RF power supplies and tuners, heating and cooling units, vacuum gauges, valves and process controllers). Specific materials handling issues will include DI water, solvents, cleansers, ion implantation sources, diffusion sources, photoresists, developers, metals, dielectrics, and toxic, flammable, corrosive and high purity gases as well as packaging materials.

MPT 212—Basic Nanofabrication Processes 2-2-3
This course will provide an overview of basic processing steps in nanofabrication. The majority of the course details a step-by-step description of the equipment and processes needed to fabricate devices and structures. Processing flow will be examined for structures such as microelectromechanical (MEM) devices, biomedical "lab-on-a-chip" structures, display devices, and microelectronic devices including diode, transistor and full CMOS structures. Students will learn the similarities and differences in both equipment and process flow for each configuration by undertaking hands-on processing.

MPT 213—Thin Films in Nanofabrication 2-2-3
This course will cover thin film deposition and etching practices in nanofabrication. The deposition techniques to be included in the first part of the course will include atmospheric, low pressure, and plasma enhanced chemical vapor deposition and sputtering; thermal evaporation; and beam evaporation physical vapor deposition. Materials to be considered will include dielectrics (nitride, oxide), polysilicon (doped and undoped), metals (aluminum, tungsten, copper), adhesion promoters and diffusion barriers. The second part of the course will focus on etching processes and will emphasize reactive ion etching (single wafer, batch), high-ion-density reactors, ion beam etching and wet chemical etching. Students will receive hands-on experience in depositing and etching dielectric, semiconductor and metal materials using state-of-the-art tools and practicing many of the steps critical to nanofabrication of semiconductor devices including microelectronic, MEMs devices, display structures and structures used in the biotechnology fields.

MPT 214—Lithography for Nanofabrication 2-2-3
This specific course will cover all aspects of lithography from design and mask fabrication to pattern transfer and inspection. The course is divided into three major sections. The first section describes the lithographic process from substrate preparation to exposure. Most of the emphasis will be on understanding the nature and behavior of photoresist materials. The second section examines the process from development through inspection (both before and after pattern transfer). This section will introduce optical masks, aligners, steppers and scanners. In addition, critical dimension (CD) control and profile control of photoresists will be investigated. The last section will discuss advanced optical lithographic techniques such as phase shifting masks and illumination schemes as well as 3-beam, X-ray, EUV and ion beam lithography.

MPT 215—Materials Modification in Nanofabrication 2-2-3
This course will cover in detail the processing steps used in modifying material properties in nanofabrication. Included will be growth and annealing processes utilizing horizontal and vertical furnaces as well as rapid thermal annealing. The impact of thermal processing and thermal processing in defects, gettering, impurities and overall electrical mechanical, optical, electrical and chemical properties will be studied. The student will grow and measure gate and field oxides, implant and activate source and drain regions, and evaluate thermal budget requirements using state-of-the-art tools. Included also will be other modification technologies such as ion implantation, diffusion and surface preparation and treatment. Substrate preparation processing such as slicing, etching, polishing and epitaxial growth will be covered.

MPT 216—Characterization, Packaging and Testing of Nanofabricated Structures 2-2-3
This course will examine a variety of techniques and measurements essential for controlling device fabrication and final packaging. Monitoring techniques such as residual gas analysis (rga), optical emission spectroscopy (OES) and end point detection will be discussed. Characterization techniques such as SEM, XPS/Auger, surface profilometry, advanced optical microscopy, optical thin film measurements, ellipsometry, and resistivity/conductivity to yield analysis and process control will also be stressed. These will include breakdown measurements, junction testing, and C-V and I-V tests and simple transistor characterization. In addition, we will examine mechanical as well as electrical characteristics of some simple MEMs devices and chemical and biological responses of nanofabricated biomedical structures. The student will also learn about the manufacturing issues involved in subjects such as interconnects, isolation and final device assembly. Aluminum, refractory metals and copper deposition techniques and characterization will be discussed in detail along with topics such as diffusion barriers, contact resistance, electromigration, corrosion, stress effects and adhesion. The importance of planarization techniques such as deposition/etchback and chemical/mechanical polishing will be emphasized. Lastly, packaging procedures such as die separation, inspection bonding, sealing and final test for both conventional ICs and novel MEM and biomedical devices will be examined.

MPT 221—Manufacturing Maintenance Apprenticeship IV 1-40-2
A supervised and evaluated on-the-job training experience designed to provide practical application of the skills and methodology of manufacturing maintenance.

MPT 222—Manufacturing Maintenance Apprenticeship V 1-40-2
A supervised and evaluated on-the-job training experience designed to provide practical application of the skills and methodology of manufacturing maintenance.

MPT 223—Manufacturing Maintenance Apprenticeship VI 1-40-2
A supervised and evaluated on-the-job training experience designed to provide practical application of the skills and methodology of manufacturing maintenance.

MPT 240—Introduction to Automated Manufacturing 2-2-3
Provides students with an overview of the hardware and functions of industrial robotics, and hands-on training with a state-of-the-art industrial robot. Lecture topics include robot configuration, tooling, application information, safety considerations and future trends. Laboratory work allows students to create, edit and execute programs on a 5-axis industrial robot.

MTH–MATHEMATICS

MTH 050—Basic Mathematics 3-0-3
Designed for students who need to develop the basic mathematic skills that are essential to success in more advanced college level work. Content material includes computational skills of whole numbers, fractions, decimals, percents, ratios, proportions and elementary algebra. Word problems are strategically placed throughout the course both to motivate and reinforce learning. Developmental courses may not be used to fulfill degree requirements.
Prerequisite: Placement Test

MTH 052—Foundations of Algebra 3-0-3
An introduction to elementary algebra that provides basic principles, concepts and techniques that are necessary for student success in higher level mathematics courses. Content material includes integers, operations with rational expressions, positive and negative exponents, the solution of first and second degree equations, and word problems. Designed for students with little or no algebra background. Developmental courses may not be used to fulfill degree requirements.
Prerequisite: Placement Test

MTH 100—Intermediate Algebra 3-0-3
Designed for students with some previous algebra background. Further enhances these algebraic skills and develops others necessary for achievement in College Algebra. Content materials include solving first and second degree equations, polynomial functions, rational functions, exponents, radicals and topics related to them, scientific notation and word problems.
Prerequisite: MTH 052 or satisfactory Placement Test score

MTH 108—Mathematics for the Technologies I 3-2-4
A course for technologies majors emphasizing application and problem solving. Topics include: review of fundamental algebra; formula transformation; dimensions and units; radicals; systems of linear equations; graphing of data, equations and functions; right triangle trigonometry; and quadratic equations and functions.
Prerequisite: MTH 052 or satisfactory Placement Test score

MTH 109—Mathematics for the Technologies II 3-2-4
A course for technologies majors emphasizing application, problem solving and proof. Topics include: graphs of trigonometric functions, operations with complex numbers, logarithmic and exponential functions and equations, introduction to analytic geometry, algebraic radicals, trigonometric identities, and equations.
Prerequisite: MTH 108 or satisfactory Placement Test score

MTH 157—College Algebra 3-0-3
Topics include an overview of basic skills learned in intermediate algebra with additional emphasis on equation solving; inequalities; systems of equations; complex numbers; graphing techniques for linear, polynomial, and rational functions; circles; absolute value and piece-wise functions.
Prerequisite: MTH 100 or satisfactory Placement Test score

MTH 158—Precalculus Mathematics 3-0-3
Designed to prepare students for calculus. Topics covered include: logarithms and their graphs, trigonometric functions and their graphs, identities, applications, calculator usage, logarithmic and trigonometric equation solving.
Prerequisite: MTH 157 or satisfactory Placement Test score

MTH 160—Introduction to Statistics 3-0-3
An introduction to statistics with an emphasis on application rather than theoretical development. Topics covered include: frequency distributions, measures of central tendency, measures of dispersion, statistical inference, testing of hypotheses, regression and correlations. Elementary research designs are included. It is advised that students have a background in algebra.
Prerequisite: MTH 050 or satisfactory Placement Test score

MTH 161—Modern College Mathematics 3-0-3
A course designed for non-science majors. Topics include limited coverage of algebra and geometry, a discussion of ratios and proportions, and some work with percentages, probabilities and statistics.
Prerequisite: MTH 052 or satisfactory Placement Test score

MTH 172—Analytical Geometry and Calculus I 4-0-4
A first course in calculus and analytical geometry. Topics include limits and derivatives of algebraic and trigonomic functions; applications of derivatives, continuity and basic integration techniques.
Prerequisite: MTH 109, MTH 158 or satisfactory Placement Test score

MTH 173—Analytical Geometry and Calculus II 4-0-4
Continuation of MTH 172. Differential and integral calculus of algebraic and transcendental functions; analytical geometry, techniques of integration and application of the integral, sequences and series, convergence and divergence theorems.
Prerequisite: MTH 172

MTH 180—Elements of Mathematics I 3-0-3
A presentation of the mathematics central to a comprehensive elementary and middle-school mathematics curriculum. The four-step problem solving process is stressed throughout the course. Topics included are sets, numeration, operations and properties of real numbers, number theory, fractions, decimals, percent, ratio and proportion, algebra basics.
Prerequisite: MTH 050 or satisfactory Placement Test score

MTH 185—Elements of Mathematics II 3-0-3
Designed to follow Elements of Mathematics I and continue with more advanced topics in mathematics focusing on the problem solving process. Areas of emphasis include probability and statistics, geometry, computer topics, logic, and measurement.
Prerequisite: MTH 180

MTH 271—Analytical Geometry and Calculus III 4-0-4
This is a continuation of MTH 173. Topics include two and three dimensional vectors, areas and surfaces, multi-variable and partial derivatives, double and triple integrals and applications.
Prerequisite: MTH 173

MTH 272—Differential Equations 3-0-3
First order ordinary differential equations. Linear differential equations with constant coefficients. Solutions of differential equations by use of series. Numerical solutions.
Prerequisite: MTH 271

MTT–MACHINE TECHNOLOGY

MTT 100—Intro to Metalworking 1-3-3
This course designed to introduce the student to the history of machining tools, machine trade opportunities and general shop safety. Classroom and laboratory activities include basic measurement, layout tools and processes, hand tool and bench work, metal cutting saws and drilling machines. The Machinery's Handbook will be used to introduce the student to metal cutting technology and operations.

MTT 102—Geometric Dimensioning & Tolerancing 2-2-3
This course is structured to increase one's ability to accurately interpret machine drawings. Classroom activities include GD&T theory, fits and clearance, surface finishes, advanced technologies, datum relations, true positioning and complex drawings.

MTT 105—Lathe I 1-4-3
This course is designed to provide the student with basic skills in the use of the metal lathe, its parts and applications. Classroom and laboratory activities will include straight turning, facing, single point threading, turning with stock held in chucks and between centers. Students will turn parts to specification while observing appropriate safety procedures.
Prerequisite: MTT 100

MTT 110—Mill I **1-4-3**
This course is designed to introduce the student to the milling machine, its parts, operation and application. Classroom and laboratory activities will include the basic setup and operation of the vertical milling machine, accessories and attachments, speeds and feeds, metal cutting techniques, drilling and reaming. Students will mill parts to specification using appropriate safety procedures.
Prerequisite: MTT 100

MTT 112—Introduction to Design, Materials and Processes **3-0-3**
Focuses on the study of design, materials and the primary processing methods used in manufacturing. A practical course devoted to the many ways in which raw materials are economically converted into useful products. Discussions of primary processing methods - materials additions, removal, and change - are grouped together, followed by coverage of applications. Properties of various materials will be covered. Students first build a thorough knowledge of similarities and differences in materials, then processing methods, and that foundation carefully sets the stage for an understanding of how to choose the optimal processes for a specific project.

MTT 199—Machine Technology Internship **1-12-3**
Students will obtain experience in the manufacturing process technology field through a combination of occupational instruction and on-the-job training. This course integrates classroom occupational study with a planned supervised work experience.

MTT 206—Lathe II **1-5-3**
This course is designed to provide the student with the advanced skills in the use of the metal lathe, its parts and application. This hands-on course requires students to use a variety of advanced metal lathe operations, with stock held in chucks and between centers, using metal cutting techniques to make parts and objects to specifications. These parts will require the student to perform internal and external threading, knurling, boring, faceplate applications, eccentrics and the use of the study rest, follower rest and grinding attachments. The students will also learn taper turning between centers, production turning and taper turning with the taper attachment. Students will be prepared to take the National Institute of Metalworking Skills (NIMS) Level II certification in Turning.
Prerequisites: MTT 105, MTT 102

MTT 211—Mill II **1-5-3**
This course is a continuation of Mill I. Through a combination of lectures and hands-on exercise, Mill II exposes the student to more advanced complex machining on the vertical mill. Topics will include precision hole location, key seats, rotary tables, dividing head operations, cutting deep slots and boring operations.
Prerequisites: MTT 110, MTT 102

MTT 215—Grinding I **1-4-3**
The course is designed to introduce the student to precision grinding operations and their application. This hands-on course requires students to use a variety of surface and form grinders and techniques to make parts and objects to specification. These parts will require the student to learn and understand the following: grinding safety, wheel selection and preparation, surface finishes, the use of grinding fluids, and the proper procedure to grind flat, square, parallel steps, slots and angles. Students will be prepared to take the National Institute of Metalworking Skills (NIMS) Level I certification in Grinding.
Prerequisites: MTT 100, MTT 102

MTT 220—EDM **1-4-3**
This course will give the student an introduction to Electric Discharge Machining (EDM). Included in the course is the safety, theory of EDM, electrode MTL selection, set-ups and hands of operation. This course will also include manufacture of several parts using the EDM machine. Students will be prepared to take the National Institute of Metalworking Skills (NIMS) Level II certification in Plunge EDM.
Prerequisites: MTT 100, MTT 102

MUS–MUSIC

MUS 131—Class Voice I **2-0-2**
An introduction to proper vocal technique. Students develop skills in proper breathing, diction, and posture, and perform for other students in the class. Subsequent to two semesters, students are encouraged to take applied voice lessons.

MUS 155—Introduction to Music **3-0-3**
Introduces the study of the elements of music, instruments of the orchestra, and the lives and works of composers from the Renaissance, Baroque, Classical, Romantic, and Contemporary eras. Corresponding listening selections are provided in class.

MUS 160—Music History I **3-0-3**
Presents the historical unfolding of the major achievements of music in Western culture from Medieval music through the end of the Baroque period. Emphasis will be on the evolution of form, harmonic technique, and style from ancient times to 1750. The student will study and research composers, compositions and styles of the Medieval, Renaissance and Baroque periods.
Prerequisite: MUS 155

MUS 175—College Choir I **2-0-2**
This course is designed for all students. This ensemble provides students the opportunity to rehearse and perform choral music appropriate for all voices. The repertoire includes literature from all music periods and styles. There are no auditions to become a member. Students may audition for solos, duets, or when needed, instrumental selections.

MUS 176—College Choir II **2-0-2**
This course is designed for all students. This ensemble provides students the opportunity to rehearse and perform choral music appropriate for all voices. The repertoire includes literature from all music styles and periods. There are no auditions to become a member. Students may audition for solos, duets, or when needed, instrumental selections.
Prerequisite: MUS 175

NSG–NURSING

NSG 110—Introduction to Nursing & Health Care **.7-1.5-1 ADN .7-2-1 PN**
This course presents an overview of the profession of nursing and health care. The five critical elements of the WCCC Nursing Program: caring, competency, communication, critical thinking and commitment serve as the framework for this course. Concepts and issues related to each element are presented. Opportunities to investigate these issues take place in the campus laboratory.
Corequisites: BIO 171, PSY 160

NSG 111—Foundations of Nursing Care **3-15-8 ADN 3-18-8 PN**
Presents the basic concepts and practice skills that are fundamental to providing nursing care for individuals with basic human needs. An integration of principles from the biological, physical, and behavioral sciences with nursing theory prepares the student to use the nursing process to promote, maintain, and restore health. The teaching of related practice skills takes place in the campus laboratory. The application of the basic care concepts and practice skills occurs in various health care settings.
Corequisites: BIO 171, ENG 161, PSY 160, NSG 110

NSG 120—Basic Medical Surgical Nursing Care in Acute Settings **3-9-6 ADN 3-11-6 PN**
Emphasizes the role of the nurse as provider of care for adults with common well-defined health problems experiencing alterations in basic human needs. The focus is on caring for individuals with alterations in oxygenation, nutrition and elimination, safety and security, activity and rest, and psychosocial-sexual needs. The opportunity to practice related nursing skills, including intravenous therapy, is provided in the campus laboratory setting. Clinical laboratory experiences provide the opportunity for application in acute medical surgical settings.
Prerequisites: NSG 110, NSG 111
Corequisites: BIO 172, PSY 161

NSG 121—Basic Medical Surgical Nursing Care in Selected Settings **3-6-5 ADN 3-7.5-5 PN**
Emphasizes the role of the nurse as provider of care for adults with common well-defined health problems experiencing alterations in basic human needs. The focus is on caring for individuals with alterations in oxygenation, nutrition and elimination, safety and security, activity and rest, and psychosocial-sexual needs. The opportunity to practice related nursing skills is provided in the campus laboratory setting. Clinical laboratory experiences provide the opportunity for application in subacute, oncology and extended care settings.
Prerequisites: NSG 110, NSG 111
Corequisites: BIO 172, PSY 161, NSG 122

NSG 122—Mental Health Concepts **.5-1.5-1**
Offers the student the opportunity to develop knowledge, skills and behaviors essential for providing care for individuals experiencing alterations in psychosocial needs and their families. The focus is on basic mental health theories, concepts and principles that provide the rationale for interventions to promote mental health. The opportunity to develop and practice selected therapeutic communication skills to promote mental health is provided in the campus laboratory setting. Prerequisite: NSG 110
Corequisites: BIO 172, PSY 161

NSG 130—Practical Nursing Role in Extended Care Settings **2-8-4**
Facilitates the student's transition to practical nursing practice. Content related to the practical nursing role as manager of care in extended care settings under the supervision of the registered nurse is explored. Issues related to beginning and maintaining a career of a practical nurse are also examined. Clinical laboratory experiences in area extended care settings provide the opportunity for the student to apply knowledge, skills and behaviors developed in previous nursing courses. This course also provides the student with the opportunity to develop behaviors to manage care of individuals in the extended care setting under the supervision of the registered nurse. This course is required of PN students only.
Prerequisites: First and second semester nursing and support courses
Corequisite: SOC 155

NSG 131—Basic Nursing Care of the Childbearing Family **1.5-6-3**
Introduces the practical nursing student to the basic concepts, skills and behaviors necessary to provide care for childbearing individuals and families. The focus is on the care of childbearing individuals and their families with alterations in basic human needs. Campus laboratory provides the student with opportunity to learn and practice skills necessary for providing basic care. Clinical laboratory experiences in area health care agencies offer opportunities for students to apply basic care concepts and skills. This course is required of PN students only.
Prerequisites: First and second semester nursing and support courses
Corequisite: SOC 155

NSG 132 —Basic Nursing Care of the Infant, Child and Family **1.5-6-3**
Introduces the practical nursing student to the basic care of the infant, child and family. The focus is on anticipatory guidance and care of the infant, child and family with alterations in basic human needs. Common health problems of the infant and child are examined. The practice of related nursing skills takes place in the campus laboratory. Clinical laboratory experiences in area health care and child care settings provide the student with opportunities to apply concepts to the care of infants, children and their families. This course is required of PN students only.
Prerequisites: First and second semester nursing and support courses
Corequisite: SOC 155

NSG 210—Role of the Associate Degree Nurse **1-3-2**
Introduces the student to the role of the professional nurse with an emphasis on provider of care. The roles of the nurse as a manager of care and member of a discipline are introduced. Focus is on the knowledge, skills and behaviors necessary to become a caring, competent and committed nurse who thinks critically and communicates effectively when caring for individuals and their families in a variety of settings. Campus laboratory provides the opportunity to practice activities to promote health, prevent disease and to develop skills related to the role of the professional nurse as provider of care.
Prerequisites: Level I ADN nursing and support courses

NSG 220—Nursing Care of the Childbearing Family **1.5-4.5-3**
Introduces the student to the role of the associate degree nurse as provider of care and member of the discipline when working with childbearing individuals and families. Emphasis is placed on identifying alterations in basic human needs and applying the nursing process to the promotion, restoration or maintenance of health throughout the phases of the childbearing process. Common health problems of newborns and of women in each phase of childbearing are explored. Opportunities to practice related skills are provided in campus laboratory. A variety of health care settings provide the student with clinical experience in the care of the childbearing family.
Prerequisites: Level I ADN nursing and support courses and BIO 265 with a "C" grade or better
Corequisites: Level II nursing and support courses

NSG 230—Nursing Care of the Infant, Child and Family **1.5-4.5-3**
Introduces the student to care of the infant, child and family. The focus is on meeting and maintaining basic human needs and the care of the infant, child and family with alterations in basic human needs. Health promotion, disease prevention, and care of the infant and child with common health problems are studied. The practice of related nursing skills takes place in the campus laboratory. Clinical laboratory experience in area health care and child care settings provides the student with opportunities to apply concepts. The clinical experience in this course requires flexible scheduling. This course will be taught over five weeks.
Prerequisites: Level I ADN nursing and support courses and BIO 265 with a "C" grade or better
Corequisites: Level II nursing and support courses

NSG 240—Psychiatric/Mental Health Nursing Care **1.5-4.5-3**
Emphasizes the utilization of the nursing process in the care of patients with alterations in their psychosocial needs. Focus is on the nurse as provider of care with emphasis on the development of caring communications and teaching/learning concepts in assisting individuals in meeting their basic needs. Campus laboratory is utilized as a forum to practice developing skills. Clinical laboratory experiences in area mental health settings provide the student with opportunities to apply knowledge and caring in the therapeutic nurse patient relationship. This course will be taught over five weeks.
Prerequisites: Level I ADN nursing and support courses and BIO 265 with a "C" grade or better
Corequisites: Level II nursing and support courses

NSG 260—Advanced Medical Surgical Nursing Care of the Chronically Ill **1.5-4.5-3**
Emphasizes the utilization of the nursing process in the care of individuals with alterations in basic human needs by focusing on the chronically ill adult with common health problems. Campus laboratory provides the student with the opportunity to practice physical and psychological assessment techniques and interventions to care for the chronically ill adult. Clinical laboratory experiences are primarily in acute care and home settings; with limited experiences with hospice, rehabilitation and outpatient settings to allow the student to apply care concepts and skills.
Prerequisites: Level I ADN nursing and support courses
Corequisites: Level II nursing and support courses

NSG 270—Advanced Medical Surgical Nursing Care of the Acutely Ill **1.5-4.5-3**

Emphasizes the utilization of the nursing process in the care of individuals with alterations in basic human needs by focusing on the acutely ill adult with complex common health problems. Campus laboratory provides the student with the opportunity to develop an understanding of basic critical care assessment and interventional techniques and to practice basic critical care skills such as rhythm analysis, cardiac monitoring, electrical interventions, hemodynamic monitoring, mechanical ventilation, airway maintenance, and blood gas analysis. Clinical laboratory experience in area acute care facilities allows the student to apply critical care concepts and skills in critical care emergency department settings.
Prerequisites: Level I ADN nursing and support courses
Corequisites: Level II nursing and support courses

NSG 280—Manager of Nursing Care **1-9-4**

Focuses on the role of the professional nurse as a manager of care. It emphasizes management and leadership principles and skills necessary to become competent in directing care for a group of individuals and their families in a variety of settings. Campus laboratory provides the opportunity to practice time management strategies, assertive communication skills, conflict management tactics and critical thinking skills. Clinical laboratory experiences offer the opportunity to apply critical thinking, management, and leadership principles and skills.
Prerequisites: Level I ADN nursing and support courses, Level II ADN courses
Corequisites: Level II support courses

OFT-OFFICE TECHNOLOGY

OFT 100—Basic Keyboarding **1-0-1**

This course instructs students on the basics of touch typing using a microcomputer. Emphasis is placed on correct posture and finger positions. The basic keyboard, including numbers and symbols, is the focus of this one-credit course. Students should be able to type 25 words per minute upon completion of this course.

OFT 110—Document Processing I **3-0-3**

This course instructs students on the correct techniques for keyboarding using a microcomputer and Microsoft Word. The focus of this course is on accuracy, speed, and skill building. This course also covers the design and construction of letter styles, reports and tables with an emphasis on grammar. Students should be able to type a minimum of 35 words per minute upon completion of this course.

OFT 120—Document Processing II **3-0-3**

This course is a continuation of OFT110 with an emphasis on increased speed and accuracy. Production skills are refined through the special application of letters, reports and tables.
Prerequisite: OFT 110

OFT 130—Applied Medical Terminology **3-0-3**

Designed for students enrolled in medical administration, continues the study of medical terminology with emphasis on terminology in specialized areas. Also includes discussions of the human element, medical laws, medical equipment, common disorders and diseases, and laboratory and radiology procedures. An introduction to the technology of medical transcription is included.
Prerequisites: ALH 122 and OFT 110

OFT 140—Office Procedures **3-0-3**

This course is designed to provide a foundation in the skills required by the office professional. The course explores the work environment, the use of technology in the modern office, and performing as part of the administrative team. Office communications and writing skills will be emphasized.

OFT 145—Medical Office Procedures **3-0-3**

General orientation to the field of medical administrative assisting including personal adjustment, human relations, medical ethics, etiquette, administrative procedures, and oral and written communications.
Prerequisite: OFT 110

OFT 150—Medical Billing Management **3-0-3**

Familiarizes students with computerized account management and develops skills in using medical management software. Includes recordkeeping, controlling inventory, patient accounting, billing, insurance form preparation, appointment scheduling, payroll, word processing and database management.

OFT 151—Advanced Office Applications **3-0-3**

This course provides word processing, spreadsheet, database and presentation instruction on microcomputers. Students use the Microsoft Office components: Word, Excel, Access and PowerPoint to create, edit, format, and store documents, worksheets, databases and presentations.
Prerequisite: CPT 150

OFT 160—Medical Insurance Forms **3-0-3**

Designed for prospective medical assistants who handle insurance claims in health care facilities. Patient's records and ledger sheets are used to complete required insurance forms. The students will gain experience in identifying and correcting charge entry errors, as well as using up-to-date medical coding.

OFT 185—PowerPoint **1-0-1**

This course focuses on Microsoft PowerPoint as a professional tool for the development of visual presentations. Topics include creating slide shows, visual elements, formats, printing, importing and delivering effective presentations. File management, editing and Web-based presentations are also covered. Students will be provided with extensive hands-on experience in a modern computing environment.

OFT 190—Word for Windows **3-0-3**

Focuses on the Word software, ranging from the most basic word processing tasks to more complicated procedures. Topics include document entry, editing, formatting, cutting and pasting, fonts, glossaries, tables, file merging, graphics and frames. Emphasis will be placed on the topics of document templates, macros and overall document design to create a more productive use of the package and professional looking documents.
Prerequisite: CPT 150

OFT 195—Excel for Windows **3-0-3**

Covers how to build spreadsheets through typical business problems, generate sophisticated graphs and print professional looking reports. Students will learn how to use powerful statistical, mathematic and financial functions. The course will also introduce dynamic linking, macros and import/exporting with other microcomputer application software.
Prerequisite: CPT 150

OFT 196—Access for Windows **3-0-3**

Included as part of the professional Microsoft Office Suite, Microsoft Access is a relational database management system that allows the user to store and retrieve information about related records. This course will focus on a wide range of activities from the fundamentals of good database design and the DBMS terminology to the creation of database applications. Material covered will include: creating tables, forms, queries, reports, macros and modules to handle common business applications.
Prerequisite: CPT 150

OFT 199—Internship I **1-12-3**

A coordinated period of 130 hours supervised experience in agencies that will offer students an opportunity to perform a variety of procedures and develop technical competence in their area of specialization.
Prerequisites: OFT 110, OFT 140 or OFT 145; GPA of 2.0 overall in major

OFT 210—Office Technologies **3-0-3**

Provides the student with the skills to create and combine text and graphics to produce newsletters, reports, brochures and advertising copy using Microsoft Publisher. This course will also include instruction in the use of Microsoft Outlook as an email, scheduling and note-taking tool.
Prerequisite: OFT 110

OFT 220—Office Transcription 3-0-3
This course will introduce students to office transcription techniques for the translation of recorded correspondence, reports and records to properly formatted documents. The development of professional document editing and proofreading skills using typical administrative documents will be emphasized.
Prerequisite: OFT 110

OFT 230—Medical Transcription I 3-0-3
This course will develop medical transcription skills for speed and accuracy. The translation of recorded medical correspondence, reports and records to properly formatted documents will be covered. Emphasis will be placed on the development of professional editing and proofreading skills using medical documents.
Prerequisites: OFT 120 and OFT 130

OFT 240—Medical Transcription II 3-0-3
This course provides an extension of the transcription skills introduced in Medical Transcription I and focuses on the further development of transcription speed and accuracy in the translation of recorded medical correspondence, reports and records. Students will be exposed to more challenging materials to increase their skill levels to that of a professional medical transcriptionist.
Prerequisite: OFT 230

OFT 250—Diagnostic Medical Coding 3-0-3
This course prepares students for medical coding positions by helping them to understand how to find the correct diagnosis codes using the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM). Students will learn to convert widely accepted uniform descriptions of medical, surgical and diagnostic services rendered by health care providers with numeric codes.
Prerequisite: ALH 122

OFT 260—Procedural Medical Coding 3-0-3
This course prepares students for medical coding positions by helping them to understand how to find the correct procedural codes using CPT (Current Procedural Terminology) and HCPCS. Students will learn to convert widely accepted uniform descriptions of medical, surgical, and diagnostic services rendered by health care providers with five-digit numeric codes.
Prerequisite: ALH 122

OFT 280—Office Management 3-0-3
This capstone course is designed to prepare the student for the workplace by integrating the various office and technical skills acquired in previous office technology courses. The course will provide the student with the opportunity to perfect their skills in a simulated office environment using teamwork, oral presentation and critical thinking skills.
Prerequisites: OFT 110, OFT 140, and 20 hours of office technology courses

OFT 285—Medical Office Management 3-0-3
This capstone course is designed to prepare the student for the workplace by integrating the various office and technical skills acquired in previous medical office technology courses. The course will provide the student with the opportunity to perfect their skills in a simulated medical office environment using teamwork, oral presentation and critical thinking skills, and will include enhanced medical coding and transcription material.
Prerequisites: OFT 110, OFT 145, OFT 250, OFT 260, and 20 hours of office technology courses

OFT 299—Internship II 1-12-3
A coordinated period of 130 hours supervised experience in agencies that will offer students an opportunity to perform a variety of procedures and develop technical competence in their area of specialization. Internship II is only available to students who have completed OFT 199 and are in the final semester of classes.
Prerequisites: OFT 199 and permission of instructor

PHL–PHILOSOPHY

PHL 155—Introduction to Logic 3-0-3
Principles of correct thinking, deductive and indictive inference; use and misuse of language in reasoning. It is recommended that students complete ENG 161 before enrolling in the course.

PHL 160—Introduction to Philosophy 3-0-3
Examines the major philosophical problems of philosophy as discussed by classical, medieval and modern philosophers.

PHL 161—Introduction to Ethics 3-0-3
A study of philosophical, ethical concepts concentrating on one or two philosophers or positions. The course is designed to provide an understanding of the "good life" both in terms of society and the individual as seen by one or more philosophers. The basis of the course is built upon Aristotelian and Platonic concepts with supplemental study of additional ethical works including contemporary philosophies.

PHL 165—Social Ethics 3-0-3
This interdisciplinary course examines contemporary ethical conflicts and provides a founding in the language, concepts, and traditions of ethics. Each unit illuminates a key ethical concept and provides students with the intellectual tools to analyze behavioral responses to moral dilemmas in the fields they choose to pursue, and in the society in which all of us must live.

PHY–PHYSICS

PHY 050—Foundations of Physics 0-2-1
Designed to prepare students for Applied Physics or College Physics. Topics covered include concepts in algebra and trigonometry essential for physics, principles and units of measurement, graphing, and an overview of the physical quantities and concepts studied in introductory physics.
Prerequisite: MTH 052

PHY 107—Applied Physics 3-2-4
An introduction to physics emphasizing application and problem solving. Topics include data analysis, mechanics, thermodynamics, properties of matter, electricity and optics. Laboratory exercises provide reinforcement of concepts as well as experience in experimental techniques.
Prerequisite: MTH 108 or MTH 100

PHY 125—Physics for Radiology 3-0-3
A study of the fundamental physical laws of nature as they pertain to the production and diagnostic uses of X-rays. Topics covered include energy, atomic structure, electricity and magnetism, electric generators and motors, X-rays and radiography.
Prerequisites: High school physics, PHY 107 or PHY 153

PHY 150—Energy and Society 3-0-3
An introduction to the concepts of energy, its resources and consumption patterns in our society. The purpose of the course is to provide a basic understanding of the fundamental physical principles of energy and to analyze the various energy conversion processes currently available. Also explores interrelationships between energy use, industrial progress and environmental consequences, and will present some future energy alternatives.

PHY 153—Introduction to Physics 3-0-3
A one-semester course that introduces the basic principles of physics with an emphasis on concepts and minimal use of mathematics. Topics include classical mechanics, heat, thermodynamics, wave motion and sound. Especially suited for students in elementary education and may serve as a preparatory course for College Physics or Engineering Physics.
Prerequisite: Basic algebra skills

PHY 155—College Physics I 3-2-4
An introduction to the fundamental physical laws of classical mechanics and thermodynamics. Laboratory exercises are provided to reinforce the material presented in lecture and to provide experience in preparing technical reports.
Prerequisites: MTH 108 or MTH 100 and high school physics or Principles of Technology or PHY 050

PHY 156—College Physics II 3-2-4
A continuation of College Physics I including a study of wave motion, optics, electricity and magnetism, atomic and nuclear physics. Laboratory exercises are provided to reinforce the material presented in lecture and to provide experience in preparing technical reports.
Prerequisite: PHY 155

PHY 255—Engineering Physics I **4-2-5**
The first in a two-semester sequence of calculus-based introductory physics courses presenting the principles of classical mechanics and thermal physics. Topics include kinematics, vectors, Newton's laws, energy and momentum, rotational motion, statics, gravitation, simple harmonic motion, thermodynamics and kinetic theory. Laboratory exercises emphasize proper measurement techniques, error analysis and preparation of laboratory reports.
Prerequisite: High school physics or equivalent
Corequisite: MTH 172

PHY 256—Engineering Physics II **4-2-5**
The second in a two-semester sequence of calculus-based introductory physics courses covering the principles of classical electricity and magnetism, and quantum physics. Topics include electrostatics, Gauss's law, capacitance, electric and magnetic fields, inductance, simple AC and DC circuits, electromagnetic waves, Maxwell's equations, optics, introduction to quantum physics, the Bohr atom, and nuclear physics. Laboratory exercises emphasize proper measurement techniques, error analysis and preparation of laboratory reports.
Prerequisite: PHY 255

PHY 258—Modern Physics **3-0-3**
A first course in modern physics. Topics include relativity, quantum effects, radiation, nuclear structure, and solid-state physics.
Prerequisite: PHY 256

POL–POLITICAL SCIENCE

POL 155—American National Government **3-0-3**
The evolution and current practice of the principles, form and operation of our national political system. Emphasis is placed on contemporary issues to illustrate the interaction of the components of the political system.

POL 156—Modern Political Systems **3-0-3**
An introduction to how different governments throughout the world operate. Democratic and authoritarian systems are examined to observe how they respond to the demands of their citizens and how decisions are made. Emphasis on Great Britain, the former USSR, China, and Japan with additional examples from the "developing world."

POL 200—American Constitutional Experience **3-0-3**
A study of the development of our system of government, from the theories and factors involved in creating our Constitution, to the powers of government granted under it. The development of individual rights and liberties as guaranteed by the Constitution will be examined with reference to the interpretation of the Constitution and Bill of Rights by the U.S. Supreme Court.

POL 255—American State and Local Government **3-0-3**
Examines the principles and practice of government and politics in our state and communities in the light of federalism. Particular emphasis is placed on state practice and local government in Pennsylvania.

POL 256—International Relations **3-0-3**
Examines contemporary international controversies and problems in relation to the major forces that shape the policies of nations. Attention is given to the state system, instruments of policy, regionalism, the factors of power and international organizations.

PSY–PSYCHOLOGY

PSY 160—General Psychology **3-0-3**
An introduction to the study of human behavior. Psychology is presented as both a biological and a social science. Facts, principles, processes, theories, and research are explored in the course of study. Practice in (1) application of scientific methods, (2) analysis of human behavior, and (3) synthesis of the components of human behavior.

PSY 161—Human Growth and Development **3-0-3**
Using a developmental lifespan approach to human development, focus is on biological, cognitive, and social domains of development and their interplay. Emphasis is on the importance of maintaining an ecological perspective. Major theories of human development at all stages of the lifespan are discussed.
Prerequisite: PSY 160

PSY 163—Physiologic Psychology **3-0-3**
This course explores the relationship between neuroscience and psychology. Offered is a comprehensive look at the brain and its corollary behavior. Included are brain anatomy, normal functions, and examples of representative pathology in the various spheres of brain functioning.
Prerequisite: PSY 160

PSY 165—Educational Psychology **3-0-3**
Presents cognitive, behavioral, and affective theories of development and their relevance in academic settings. Emphasis is on the importance of understanding multicultural and humanistic issues to maximize academic development. Exceptional populations and non-traditional testing techniques and alternate methods of student and teacher evaluation, including their strengths and weaknesses in academic settings.
Prerequisite: PSY 160

PSY 260—Social Psychology **3-0-3**
Study of the individual in his society. Theories of social psychology, methods of human research and philosophical assumptions of the nature of man are stressed. Modern problems of aggression and other social factors in the development of personality, social attitudes and attitude change, interpersonal and group processes are studied and researched in the classroom.
Prerequisite: PSY 160

PSY 265—Child Psychology **3-0-3**
Study of the child from prenatal development through adolescence. Topics include physical, cognitive, social and emotional development along with current research methodology. Emphasis is placed on understanding the relationship of heredity to environment, cross cultural comparison of children, and the ecological system in which development occurs.
Prerequisite: PSY 160

PSY 267—Psychology of Women **3-0-3**
This course examines the diverse experiences, contributions and perspectives of women and how the concept of gender shapes human lives. Students explore how gender roles develop and how gender plays an important role - including sexuality, education, occupations, physical and mental health, politics and the media. Multicultural and cross-cultural perspectives such as social, cultural and economic variables are integrated throughout the course.

PSY 268—Adolescent Psychology **3-0-3**
Studies the process of human development during adolescence by examining identity formation within the context of biological, cognitive and psychosocial changes during this period. Family, peer, educational and social influences are emphasized in exploring normal as well as atypical development.
Prerequisite: PSY 160

PSY 270—Abnormal Psychology **3-0-3**
Study of behaviors that are labeled abnormal in our society. Historical perspectives are addressed and DSM criteria are used in assessing symptomatology. Causation of mental illness is explained through an analysis of biological, psychosocial and sociocultural factors. Current treatment modalities are studied.
Prerequisite: PSY 160

RAD-RADIOLOGY TECHNOLOGY

RAD 110—Introduction to Radiology Technology, Patient Care and Pharmacology **2.5-1-3**

This course will provide the student with an introduction to radiologic imaging. Topics will include the role of the radiographer in the healthcare setting, the history of radiography, basic radiation safety, medical terminology, and ethical and legal issues for radiographers. Appropriate radiographer conduct and communication skills in the clinic setting will be discussed along with patient care, pharmacology, safety and emergency procedures. Understanding diversity in healthcare and its relation to patient treatment will be examined.
Prerequisite: BIO 171
Corequisites: RAD 120, RAD 130

RAD 120—Introduction to Radiographic Procedures **1-4-3**

Introduction to Radiographic Procedures combines traditional coursework with laboratory simulation and practice to enable students to perform routine radiologic procedures. Students will learn positioning terminology, equipment manipulation, the proper positioning of the appendicular skeleton, lungs, and abdomen. In addition, students will learn to evaluate images for proper exposure factors and demonstration of anatomy.
Prerequisite: BIO 171
Corequisites: RAD 110, RAD 130

RAD 130—Principles of Radiographic Image Capture and Display **2.5-1-3**

This course will provide students with an introduction to the production and characteristics of radiation, image capture, image processing, manipulation of exposure variables, and the effect of manipulating exposures variables on image quality. Film, digital imaging and related accessories are discussed. Student experimentation and demonstrations are included in the application of theory.
Prerequisite: BIO 171
Corequisites: RAD 110, RAD 120

RAD 140—Radiographic Procedures II **1-4-3**

As a continuation of Introduction to Radiographic Procedures, this course combines traditional coursework with laboratory simulation and practice to enable students to perform routine radiologic procedures. Students will learn positioning terminology, equipment manipulation, the proper positioning of the axial skeleton. In addition, students will learn to evaluate images for proper exposure factors and demonstration of anatomy.
Prerequisite: RAD 120
Corequisites: RAD 150, RAD 155

RAD 150—Principles of Radiologic Image Capture and Display II **2.5-1-3**

As a continuation of Principles of Radiographic Image Capture and Display, this course will provide students with a more comprehensive examination of image capture, image processing, and manipulation of exposure variables, and the effect of manipulating exposures variables on image quality. Film, digital imaging and related accessories are discussed. Student experimentation and demonstrations are included in the application of theory.
Prerequisite: RAD 130
Corequisites: RAD 140, RAD 155

RAD 155—Clinical Education I **0-12-3**

This clinical course provides students with opportunity to observe, practice, and perform radiologic procedures learned in Introduction to Radiologic Procedures. Students will complete competency examinations where image quality and patient care are evaluated.
Prerequisite: RAD 120
Corequisites: RAD 140, RAD 150

RAD 210—Radiographic Procedures III **1-4-3**

As a continuation of Radiographic Procedures II, this course combines traditional coursework with laboratory simulation and practice to enable students to perform routine radiologic procedures. Students will learn positioning terminology, equipment manipulation, the proper positioning of the non-skeletal areas, organ systems, studies that use contrast media, myelography, venography and mammography. In addition, students will learn to evaluate images for proper exposure factors and demonstration of anatomy.
Prerequisite: RAD 140
Corequisite: RAD 215

RAD 215—Clinical Education II **1-4-3**

This clinical course is a continuation of Clinical Education I, and will provide students the opportunity to observe, practice ad perform radiologic procedures. Students will target exams from Radiographic Procedures II while maintaining proficiency in previously learned examinations. Students will complete competency examinations where image quality and patient care are evaluated.
Prerequisite: RAD 140
Corequisite: RAD 210

RAD 220—Radiation Protection and Biology **3-0-3**

This two-part course introduces students to the biological effects of exposure to ionizing radiation on living organisms. Topics include somatic and genetic responses, the effect on cells and tissues. In addition, the acute and chronic effects of exposure to radiation are covered. The second part of this course covers principles of radiation protection, ALARA, radiation monitoring devices, and methods to reduce unnecessary exposure to the radiographer and patient.
Prerequisite: RAD 210
Corequisites: RAD 230, RAD 235

RAD 230—Radiologic Imaging Equipment, Image Analysis and Quality Control **2.5-1-3**

This three-part course begins with a short review of the production and characteristics of X-rays. The course progresses to an overview of the design and operation of imaging equipment and film processors. The course concludes with radiographic image analysis and quality control procedures.
Prerequisite: RAD 210
Corequisites: RAD 220, RAD 235

RAD 235—Clinical Education III **0-12-3**

This clinical course is a continuation of the Clinical Education series, and will provide students the opportunity to observe, practice and perform radiologic procedures. Students will target exams from Radiographic Procedures III while maintaining proficiency in previously learned examinations. Students will complete competency examinations where image quality and patient care are evaluated.
Prerequisite: RAD 215
Corequisites: RAD 220, RAD 230

RAD 240—Radiographic Pathology **2-0-2**

This course introduces students to the etiology of disease and the pathophysiologic disorders that compromise healthy systems. Emphasis will be placed upon the radiographic appearance of disease processes.
Prerequisite: RAD 220
Corequisite: RAD 245

RAD 245—Clinical Education IV **0-8-3**

This clinical course is a continuation of the Clinical Education series, and will provide students the opportunity to observe, practice and perform radiologic procedures. Students will continue to practice and maintain proficiency in previously learned examinations. Students will complete competency examinations where image quality and patient care are evaluated.
Prerequisite: RAD 235
Corequisite: RAD 240

RAD 250—Radiology Technology Capstone **3-0-3**

This course is a review of all material from Radiology Technology with emphasis on the ARRT examination preparation and career planning.
Prerequisite: RAD 245
Corequisite: RAD 255

RAD 255—Clinical Education V **0-16-3**
This clinical course is a continuation of the Clinical Education series, and will provide students the opportunity to observe, practice and perform radiologic procedures. Students will continue to practice and maintain proficiency in previously learned examinations. Students will be permitted to rotate into specialty imaging areas and students will complete their competency examinations where image quality and patient care are evaluated.
Prerequisite: RAD 245
Corequisite: RAD 250

REL–RELIGION

REL 161—Introduction to Religion: Beliefs and Believers **3-0-3**
This interdisciplinary course is an exploration into the nature and function of belief structures or "worldviews." These worldviews exist in formal organized entities such as traditional religions as well as political and personal ideologies. The dynamic, living relationship between a religious organization or worldview and its immediate cultural environment provides a "living laboratory" for the study of beliefs and believers. Students will gain initial exposure to the religious systems of major world religions–Hinduism, Buddhism, Taoism, Confucianism, Judaism, Christianity, Islam–as well as belief systems outside mainstream religious institutions, such as new age religions, neo-paganism, and "civil religion."

REL 171—World Religions Survey **3-0-3**
This course introduces students to the concept of the structure of religion and discusses primal and ancient religions. It surveys the major religions of India, the Far East, and the Middle East. It emphasizes religions as living, changing systems of thought and practice which affect each other and influence events worldwide.

REL 181—Religion in America **3-0-3**
Emphasizing the United States' unique history and diverse population, this course focuses on native and world religions as practiced in North America. The course discusses what religion is, how it works, and why it is important to people. The way in which religion shapes American life and affects the politics, culture, and social mores of this country will be investigated.

RLS–REAL ESTATE

RLS 101—Fundamentals of Real Estate **2-0-2**
A basic course designed to comply with the standardized courses required to satisfy the Pennsylvania State Real Estate Commission's salesperson educational requirement. Topics include basic concepts in the field of real estate, property descriptions, property development, license law, contracts, deeds, titles, conveyancing and recording. Extensive review and practice listing is included.

RLS 102—Real Estate Practices **2-0-2**
A continuation of the real estate fundamentals course designed to complete the specific requirements of the standardized educational curriculum for licensing real estate salespersons. Topics covered are brokerage, listing, selling, single family financing, settlement and real estate math.

RLS 107—Real Estate Brokerage **3-0-3**
Outlines the organization of a brokerage office and details the work of a real estate broker including procedures, practices and ethics. Topics include obtaining prospects, filing listings, preparing mortgage applications and sales or rental offerings, methods of advertising and business promotion, problems and techniques of negotiations and closing sales, leases, and other real estate transactions.

RLS 205—Property Management **3-0-3**
Considers property management and maintenance. Property management topics include agency versus owner management, tenant and labor relations, recordkeeping and government regulations and how they affect management practices. Property maintenance topics include selection and supervision of personnel, general servicing and maintenance of buildings, maintenance and replacement of equipment, handling contracts, contractors and suppliers.

RLS 209—Real Estate Finance **3-0-3**
Involves the principles of real estate valuation including tools, techniques and methods of determining value. The course also covers mortgage financing, including mortgage sources, primary and secondary mortgages brokerage, mortgage applications and lenders' requirements.

RLS 210—Law of Real Estate **3-0-3**
Views the legal questions that arise in leasing, selling and mortgaging real estate in Pennsylvania. Topics include the legal rights, duties and responsibilities of real estate brokers, relationship of landlord to tenant, various steps required in connection with a contract to sell or mortgage real estate, examination and transfer of title and the frequently used estate instruments.

RLS 211—Real Estate Appraisal **3-0-3**
Presents a coordinated, practical study of real estate appraisal and property, including theories underlying valuation of various and specific types of property, as special use, service and single purpose property. A study of mortgage laws, condemnation, insurance, tax assessment and how to develop and operate an appraisal business.

SOC–SOCIOLOGY

SOC 155—Principles of Sociology **3-0-3**
Methods, fields, and vocabulary of sociology; the social interaction of persons and groups; the process of socialization and social structures; social institutions as the family, religion, and education are included.

SOC 160—Applied Human Relations **3-0-3**
Designed as an introduction to the basic principles of sociology, general psychology and industrial psychology. Major emphasis is on such topics as the origin and development of the social body, group behavior and other problems attendant to leadership and cooperation. Designed to develop a thorough understanding of human relationships in the industrial and business complex. The course also proposes to aid in the formation of sound citizenship.

SOC 161—Marriage and Family **3-0-3**
A functional course in the psychological and sociological factors involved in courtship, marriage and the family cycle. A comparative study of the family structure. Emphasis on family functions and changing life-styles.

SOC 162—Contemporary Social Problems **3-0-3**
The application of sociological principles and methods to selected major problems of contemporary American society.
Prerequisite: SOC 155

SOC 165—Cultural Diversity **3-0-3**
This class will introduce students to the concept of culture and cultural diversity. While learning the different components of culture, students will be presented with data and examples explaining different cultural practices and beliefs. This course will focus on the experiences that humans in every culture share in order to demonstrate the value and importance of understanding diverse cultures.

SOC 167—Death and Dying **3-0-3**
A reading/writing course on death and dying covering four major perspectives: changing meanings of death and dying, the experience of death, survivors of death and dilemmas of death.

SOC 255—Cultural Anthropology **3-0-3**
Examines the concept of culture and its significance in the study of the behavior of man. Places special emphasis on social organization.

SPA–SPANISH

SPA 155—Beginning Spanish I **4-0-4**
A beginning language course with emphasis on elementary speaking, reading, writing and comprehension.

SPA 156—Beginning Spanish II **4-0-4**
Continuation of Spanish 155. Emphasis on the development of increased oral ability, reading and writing.
Prerequisite: SPA 155

SPA 255—Intermediate Spanish I 3-0-3
Continuation of Beginning Spanish II. Although the approach will be a communicative one, writing and reading skills will be developed along with the speaking and listening skills. The course will be organized according to the guidelines for proficiency oriented language learning.
Prerequisite: SPA 156

SPA 256—Intermediate Spanish II 3-0-3
Continuation of Intermediate Spanish I. Students will continue to improve communicative skills with the four areas of speaking, listening, reading and writing being stressed. A proficiency oriented approach and materials will be used.
Prerequisite: SPA 255

SPC–SPEECH COMMUNICATION

SPC 155—Effective Speech 3-0-3
Helps students to acquire skills in presenting clear, concise, well-organized, interesting ideas to an audience and to acquire skill in listening actively to the ideas of others.

SPC 156—Interpersonal Communication 3-0-3
Focuses on the theoretical aspects of communication and on the development of skills necessary for effective interpersonal interactions.

SPC 157—Fundamentals of Small Group Communication 3-0-3
Designed to study the group process and to teach methods of group discussion as a problem-solving technique. It emphasizes dynamics of "brainstorming" and management of differences in group activity.

SPC 158—Oral Interpretation 3-0-3
Helps students to acquire skills in voice and gesture that will enable them to communicate literature to an audience. Also helps students prepare programs for individual events in forensics competition.

SPC 255—Persuasion and Propaganda 3-0-3
Provides students with the opportunity to understand what persuasion is and how it works, both in theory and in practice. Areas of focus include the acquisition of belief patterns and the use of persuasive appeals and logical fallacies in the rhetoric of advertising and politics. Various definitions of propaganda and its ethical bases will also be considered.

SRG–SURGICAL TECHNOLOGY

SRG 100—Orientation to Surgical Technology 2-2-3
A historical overview to the development of the role of the surgical technologist is presented and the significance of this position within the context of the present health care environment is provided. Hospital and operating room organizational structures are explained. The differences in the duties and functions of the scrub surgical technologist, circulating surgical technologist, and the second assisting technologist are described. The scope of practice of the surgical technologist is identified along with the ethical and legal responsibilities of the surgical technologist with regard to the safety and welfare of the surgical patient. A laboratory experience provides the student with an opportunity to apply knowledge of these procedures in a simulated surgical environment.
Corequisite: BIO 171

SRG 101—Foundations of Surgical Technology 5-2-6
This course focuses on the preparation of the patient for surgery and the fundamentals of surgical care. Preoperative routines, transporting and positioning patients, and preoperative and postoperative patient care procedures are presented. Aseptic technique, purposes and methods of sterilization, disinfection, antisepsis, the care of surgical instrumentation, supplies and equipment, the handling of surgical specimens and body fluids, electrical hazards, radiation and laser precautions, fire safety, and CDC and OSHA requirements are included. A laboratory experience provides the student with an opportunity to apply knowledge of these procedures in a simulated surgical environment.

SRG 110—Surgical Technology I 5-0-5
General and gastrointestinal surgical procedures, obstetric and gynecologic, urologic and orthopedic surgical procedures are presented. Instruction related to these operative procedures includes the pathology prompting the surgical intervention, instruments, suturing materials and needed supplies, methods of anesthesia, patient positioning, skin preparation, draping, incisions, procedure descriptions with possible complications, and special medications.
Corequisite: BIO 265

SRG 111—Surgical Technology Clinical I 0-24-4
Offers students an opportunity to practice the skills required of the surgical technologist in the actual operative setting. During this clinical experience, the student is assigned to supervised practice as a scrub technologist for three days per week in a local hospital operating room.
Corequisite: SRG 110

SRG 120—Surgical Technology II 3-0-3
Cardiovascular and vascular, thoracic, neurosurgical, and other surgical specialty areas are presented. As in SRG 110, instruction related to these operative procedures also includes the pathology prompting the surgical intervention, instruments, suturing materials and needed supplies, methods of anesthesia, patient positioning, skin preparation, draping, incisions, procedure descriptions with possible complications, and special medications.
Prerequisites: BIO 172, SRG 110, SRG 111

SRG 121—Surgical Technology Clinical II 0-16-4
Offers students an opportunity to continue to practice the skills required of the surgical technologist in the actual operative setting. During this clinical experience, the student is assigned to supervised practice as a scrub technologist for two days per week in a local hospital operating room. Where permitted by hospital policy, the student under direct supervision may also practice the role of the circulating technologist, and/or second assisting technologist.
Corequisite: SRG 120

THR–THEATRE

THR 160—Introduction to Acting 3-0-3
Introduces the beginning actor to a variety of physical and vocal exercises and methods for creatively freeing spontaneous personal feelings. Scene study and the process of merging these elements through detailed work on texts. Emphasizes sustained focus of attention and highly concentrated energy. It is strongly recommended that students satisfactorily complete SPC 158 prior to taking this course.

THR 161—Acting II 3-0-3
Extends and intensifies several concepts addressed in the Introduction to Acting course. In addition to incorporating improvisation exercises and text analysis as one measure of an actor's art, this course emphasizes character analysis and motivation as another indispensable dimension.
Prerequisite: THR 160

THR 170—Voice and Delivery 3-0-3
Voice and Delivery addresses the development, training, strengthening and improvement of stage speech. Besides exploring ways the body produces hearing and speech and building better listening skills, this course examines relaxation, phonetics, articulation, resonance, projection, pitch, rate of speech, and stress as components of successful stage delivery.

TRV–TRAVEL AND TOURISM

TRV 170—Travel Career Development 3-0-3
Focuses on the role of the travel professional and the nature of relationships between professions, supplier and clients. Provides information on travel products, destinations, suppliers, business, issues, and technical and personal skills needed to succeed in the travel industry. Emphasis is placed on travel motivation, travel counseling and customer service skills. Transportation to off-campus locations is the responsibility of the student.

TRV 171—Travel and Tourism Principles 3-0-3
Investigates the economic and social impact of tourism and travel. The role that management plays in catering to tourists and in the development and operations of guided tours is studied. Transportation to off-campus locations is the responsibility of the student.

TRV 173—International Travel 3-0-3
Provides students with information essential to understanding international travel destinations. Emphasis is placed on procedures, organization, management, and legal aspects. Transportation to off-campus locations is the responsibility of the student.

TRV 273—Domestic Travel 3-0-3
Provides students with intensive familiarization of the major domestic tourist areas frequented by leisure and business travelers. Emphasis is on tourist attractions, points of interest, airport locations and transportation. Transportation to off-campus locations is the responsibility of the student.

TRV 274—Tour Planning and Sales 3-0-3
Focuses on tour development, group travel and corporate travel. Creative itineraries and fundamentals of tour escorting will be covered. Students will explore options for corporate functions and scheduling. Group touring will be investigated for both the leisure and corporate traveler. Transportation to off-campus locations is the responsibility of the student.

TRV 275—Travel Reservations 3-0-3
Provides the basic fundamentals of public transportation (air, train, bus, cruise), reservations and ticketing. Additional training includes familiarization of hotel, rental car and attraction reservations. The course combines lecture and hands-on exercises. Emphasis is placed on terminology, domestic and international fares, scheduling, ticketing, seat selection, planning, and reservation development. Transportation to off-campus locations is the responsibility of the student.

WEB–WEB DESIGN

WEB 120—Flash - Basic 3-0-3
This course introduces students to Adobe Flash, interactive vector graphics and animations for the Web. This course also provides an introduction to basic ActionScript for creating end-user controls. Students provide their own backup media and are responsible for archiving their projects. Hands-on experience with MAC OS X or Windows XP preferred.

WEB 125—Flash - ActionScript 3-0-3
Students explore ActionScript, the object-oriented standards-based scripting language of Adobe Flash. Organizational strategies for Flash movies, variables, properties, functions, complex behaviors and a variety of special techniques to enhance the design of interactivity for creating engaging user experiences are included. Students provide their own backup media and are responsible for archiving their projects.
Prerequisite: WEB 120

WEB 130—GoLive - Basic 3-0-3
This course introduces students to Adobe GoLive's visual design environment and powerful programming capabilities. Students will design and create visually engaging Web pages and sites that provide cutting-edge online experiences with ease and efficiency. Students provide their own backup media and are responsible for archiving their projects. Hands-on experience with MAC OS X or Windows XP preferred.

WEB 140—Dreamweaver - Basic 3-0-3
This course introduces students to Adobe Dreamweaver's powerful, visual environment to construct Web pages and sites. Students will explore the live design environment in the design and creation of basic Web pages and sites. Students provide their own backup media and are responsible for archiving their projects. Hands-on experience with MAC OS X or Windows XP preferred.

WEB 150—Web Design 3-0-3
An exploration of Web design that focuses on the basic design concepts used in creating Web-based publications-layout, typography and color usage. Rapid prototyping and the issues of accessibility, usability, and versatility are explored. Students provide their own backup media and are responsible for archiving their projects. Hands-on experience with MAC OS X and Windows XP preferred.

WEB 162—Fireworks 3-0-3
This course introduces Web graphic design and creation using Adobe Fireworks. Students will address the special challenges of creating and editing bitmap and vector images, animating graphics, adding interactivity, and optimizing images to export with HTML and JavaScript code for Adobe Dreamweaver and various HTML editors. Students provide their own backup media and are responsible for archiving their projects. Hands-on experience with MAC OS X or Windows preferred.

WEB 163—Photoshop: Web 3-0-3
This course introduces Web graphic design and creation using Adobe Photoshop. Students will create, edit and optimize Web graphics and Web pages, and export them to Adobe Dreamweaver, GoLive and other HTML editors. Students provide their own backup media and are responsible for archiving their projects. Hands-on experience with MAC OS X or Windows preferred.

WEB 180—Flash - Animation I 3-0-3
This course is an exploration of broadcast-quality Web animation techniques and production processes - from conception to creation and through the many stages of the production pipeline to distribution using Adobe Flash. Students will explore the principles of animation and physical effects, story concepts and storyboarding, lip synching and sound to create stunning 2D animations. Students provide their own backup media and are responsible for archiving their projects.
Prerequisite: WEB 120

WEB 199—Web Internship 0-12-3
Students gain exposure and insight into selection of occupations within the fields of Web design/development through supervised and evaluated on-the-job experience. Students select locations for their internships from college-approved sites which primarily encompass southwestern Pennsylvania. Online seminars are conducted for the students to discuss their experiences. Transportation to off-campus locations is the responsibility of students.
Prerequisite: Completion of 27 credits in major courses

WEB 220—Flash - Web Media 3-0-3
Students explore options for creating and delivering compelling Flash Video experiences to the Web from editing video and creating a Flash video file to incorporating creative filters and blending effects using Flash and ActionScript to exploring Adobe After Effects to create basic video and animation effects. Students provide their own backup media and are responsible for archiving their projects.
Prerequisites: WEB 125 and WEB 180

WEB 230—GoLive - Advanced 3-0-3
This course focuses on the power of GoLive's CSS intuitive tools, visual development environment for mobile content, support of open standards, and the integration of various Adobe applications to build visually appealing Web sites, rich mobile content and perform weekly updates and site maintenance using Co-Author. Students provide their own backup media and are responsible for archiving their projects.
Prerequisite: WEB 130

WEB 235—Interactive Design 3-0-3
This course explores the structure and aesthetics of interactive projects with attention to the end-user needs and visual design. Students focus on project development from initial concepts and research through design, prototype, testing and production.
Prerequisite: WEB 120, WEB 130 or WEB 140

WEB 239—Dreamweaver - Advanced 3-0-3
Using Cascading Style Sheets (CSS) simplifies site design, layout and styling of Web page content for screen, handheld devices or print, and maintenance. Students will learn how to plan large scale Web sites and create templates to pull information from a database and create Web pages dynamically while addressing accessibility compliance issues.
Prerequisite: WEB 140

WEB 280—Flash - Animation II 3-0-3
This course provides students with an introduction to rich media advertising using Adobe Flash. Students focus on the integration of animation, Web graphics, dynamic and rich audio, and video to produce high-impact motion graphics, banner ads, animation, and interface design for the Web. Students provide their own backup media and are responsible for archiving their projects.
Prerequisite: WEB 180

WEB 295—Information Architecture 3-0-3
This course focuses on the integration of the interdisciplinary process that makes large amounts of information easily accessible to end-users. Students, using a team-based approach, plan, design and create an innovative multi-user experience for the Web that addresses the issues of accessibility, usability, and versatility. This is a capstone course; satisfactory demonstration of outcomes for the competency profiles for the Web Site Design/Production options are required.
Prerequisite: Completion of 27 credits in major courses

WEL–WELDING

WEL 125—Welding I 2-6-4
Demonstrations by instructor and practice by students in basic oxyacetylene and arc welding. Safe and correct methods of assembly and operation of welding equipment. Use of pedestal and hand grinders. Practice in flame cutting, gas and arc welding in flat, horizontal and vertical positions. Demonstrations and practice in basic TIG welding. Emphasis on lab techniques and safety.

WEL 135—Welding II 2-6-4
Includes demonstrations and practice of vertical and overhead welding techniques; the use of tungsten-arc inert gas (TIG) welding, demonstrations and practice of SMAW vertical and overhead. Basic welding techniques with MIG welding.
Prerequisite: WEL 125

WEL 199—Welding Engineering Technology Internship 1-12-3
Students will obtain experience in the welding industry through a combination of occupational instruction and on-the-job training. This course integrates classroom occupational study with a planned supervised practical work experience.
Prerequisite: Permission of instructor

WEL 207—Advanced Welding I 2-6-4
Includes the theory, application and skill development of advanced SMAW, GTAW, GMAW, FCAW, PAC and AAC processes. Skill development for the ARC welding processes will emphasize vertical and overhead "vee" groove joints and root/face bend tests of all test welds. All skill tests will follow either ASME or AWS welding code criteria.
Prerequisite: WEL 135

WEL 208—Advanced Welding II 2-6-4
Covers the theory and practical use of plasma arc, automatic and semiautomatic submerged arc, flux core, MIG, TIG welding processes, carbon arc gouging and cutting. Includes demonstrations and student use of automatic welding equipment and weld positioners. Pipe welding employing MIG, TIG and SMAW processes will be employed. Demonstration and practice in resistance welding (spot welding). Root-face and side-bend tests will be passed by the student in the vertical and overhead positions and in the 6G pipe position. ASME, AWS and API code procedures are followed.
Prerequisite: WEL 207

WEL 209—Welding Equipment Repair and Troubleshooting 2-2-3
Covers the operation and maintenance of welding equipment. Also includes troubleshooting welding equipment problems and use of Volt-Ohm-Meters.
Prerequisite: WEL 125

WEL 220—Inspection of Code Welding Specifications 3-0-3
Includes how to read, write and interpret ASME and AWS specifications and codes for structural steel and pressure vessel welding.

WEL 221—Metal Fabrication 2-4-4
Provides students with an understanding of metal fabrication. Emphasis is placed on the proper joint selection and design, stresses in welds, material selection and estimating welding costs. Students construct projects using common metal fabrication equipment. Laboratory work includes use of welding power supplies, shears, ironworker and metal rollers.
Prerequisite: DFT 110, WEL 135

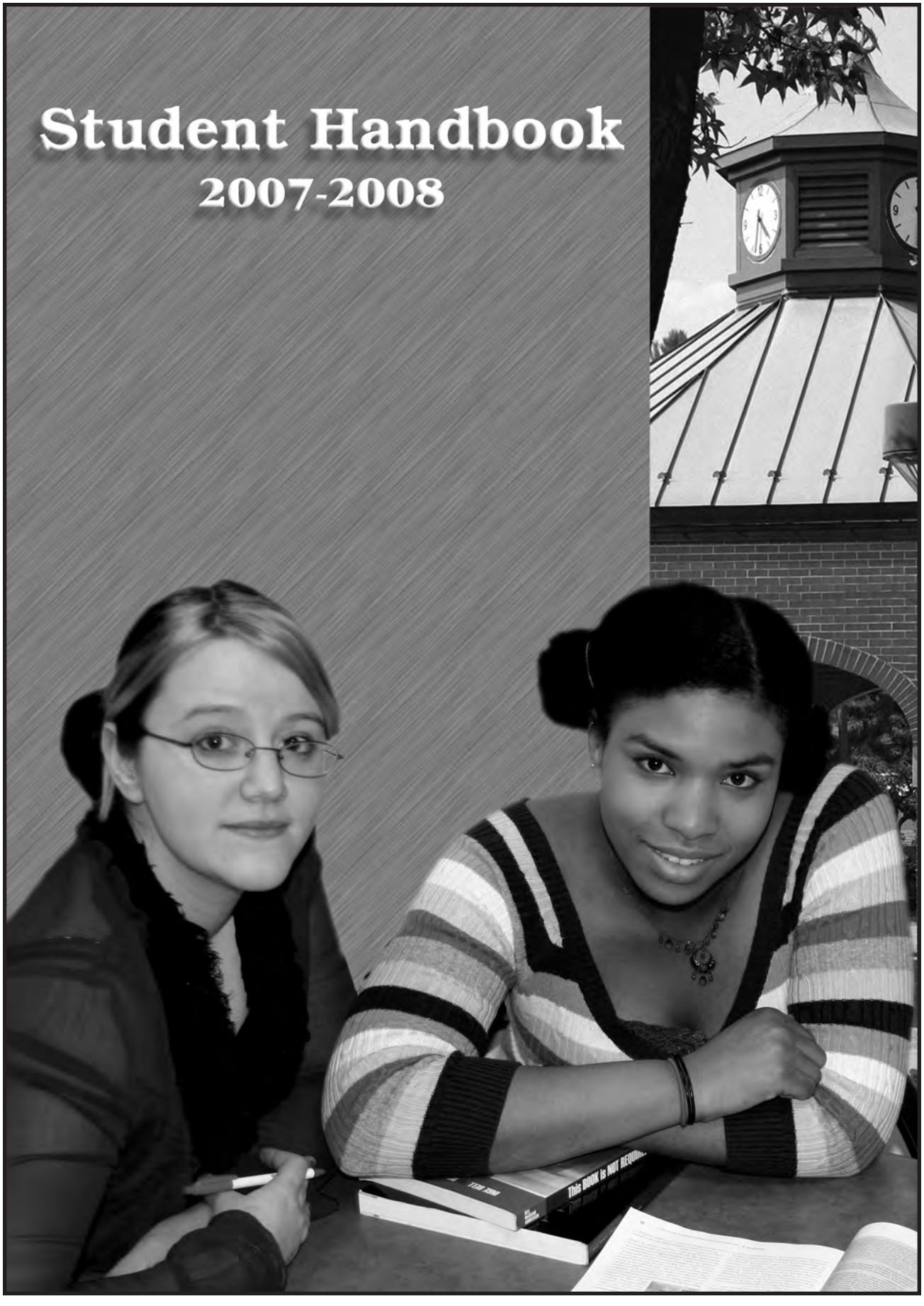
WEL 223—Computer Aided Welding Design and Applications 2-2-3
Provides students with an understanding of quality weldment design. Emphasis is placed on proper joint selection and design, stresses in welds, material selection and estimating welding costs. Students develop computer programs and utilize computers to calculate weld sizes, strength of welds and estimating welding costs. Laboratory work includes designing and fabricating a welded project to be entered in the James F. Lincoln ARC Welding Foundation's Annual Awards Program.
Prerequisite: CPT 239

WEL 224—Materials Evaluation 2-2-3
Includes visual, dye penetrant, x-ray, ultrasonic, magnetic particle and destructive testing techniques. Lab practice is included.
Prerequisites: MET 105 and MTH 108

WEL 240—Introduction to Automated Manufacturing 2-2-3
Provides students with an overview of the hardware and functions of industrial robotics, and hands-on training with a state-of-the-art industrial robot. Lecture topics include robot configuration, tooling, application information, safety considerations and future trends. Laboratory work allows students to create, edit and execute programs on a 5-axis, industrial robot.

Notes

Student Handbook
2007-2008



Student Services and Resources

WCCC offers a variety of services and activities designed to enrich the learning experiences of all students. These services are available without charge to students enrolled in credit classes.

Student Development Center

Assessment and Testing

Assessment and testing services are available in the Student Development Center for students and community residents who want to learn more about themselves and what college programs might be suitable for them.

A placement test assessing reading, writing and mathematics skills is given in the Learning Assistance Center. Vocational interest and ability testing and interpretation are also provided as a service to enrolled students. Test results are confidential.

Career Planning

A staff of professional counselors is available to assist students in career planning and decision-making. A complete career library which includes printed material and computerized career exploration is maintained in the Student Development Center for use by students and classroom instructors.

Academic Advising

Counselors assist students in choosing an appropriate program of study and develop a schedule of classes for their first semester based upon placement test scores and personal interests. Students receive information about these advising sessions after they submit their New Student Information Forms to the college.

After the first semester, students are assigned a faculty member to serve as their academic advisor. The faculty academic advisor will assist them with scheduling classes in subsequent semesters.

Counseling

The counseling staff in the Student Development Office helps students adjust to college life. Counselors are available to provide assistance with academic or personal difficulties which may hinder students' educational progress. Among the most common reasons students seek counseling are:

- academic advising and planning
- assistance in transferring to a four-year college or university
- career information and planning
- services for the disabled
- personal concerns
- testing for interests and abilities

Counseling at WCCC is confidential and free.

Transfer Services

Those who plan to continue their education after completing course work at WCCC should contact a counselor in the Student Development Center. Colleges and universities have varied regulations on accepting courses and credits for transfer, and students can save a considerable amount of time and money if they know the regulations in advance and plan their schedules accordingly.

The transfer library contains a large selection of college catalogs and other information relevant to the transfer process.

Special Services

The Act 101 and Student Support Services programs help students make a successful transition to college life.

Act 101

The Pennsylvania Higher Education Equal Opportunity Program (Act 101) provides an academic support system for highly motivated students who desire a college education. To be eligible for the program, students must be Pennsylvania residents who are enrolled full-time and meet certain economic and academic criteria.

TRIO (Student Support Services)

The federal government provides academic support and counseling through the TRIO (Student Support Services) Program for students that meet eligibility guidelines. To be considered eligible for program services a student must be a first generation college student, low income or have a disability.

The goals of the program are to retain and graduate students and to provide them with an institutional climate of support.

Services for Students with Disabilities

Students with disabilities are encouraged to schedule an appointment with the student support services counselor to discuss their individual needs.

Students with disabilities may be asked to submit documentation of the disability if they are requesting academic accommodations. This documentation should be current and include an evaluation completed by a recognized authority.

The student support services counselor and the student will discuss how the disability will impact their learning and what services/academic accommodations are appropriate on an individual basis.

All information shall remain confidential unless the student completes a written authorization by completing the Academic Accommodations Request Form.

Students with disabilities who need classroom accommodations should call and make the request well in advance of the start of the classes. For assistance call 724-925-4189 or TDD 724-925-4297.

Student Services and Resources

TDD & PA Relay System

The Student Development Office has a TDD (telephone device for the deaf) communicator which can be reached by calling 724-925-4297. To use the PA Relay System, call 1-800-654-5988. The TDD is located in Student Development, Room 130, at the Youngwood campus and is available for student and faculty use. The PA Relay System can be used for TDD access to other educational campuses.

Tutoring

The Learning Assistance Center provides individual and small-group tutoring in most courses, academic-based workshops, computer-assisted instruction and a variety of print resources. These services are free and available to students enrolled in credit courses.

New Student Orientation Programs

The Precollege and Freshman Fair orientation programs are designed to help new students make a positive adjustment to the college. The programs increase student awareness of campus services, help students develop a more positive identification with the institution, and increase students' involvement in campus life. The new student orientation programs are provided to support students in achieving their educational goals.

Financial Aid

WCCC participates in several state and federal financial aid programs including grants, loans and college work study. More detailed information on these programs can be found on pages 11-16 of the college catalog.

Veterans Benefits

Veterans who served on active duty for more than 180 continuous days and were released under conditions other than dishonorable may be eligible for an educational allowance under the GI Bill. The amount and duration of the educational allowance will depend on the program in effect during the veteran's enlistment. In addition, 18 through 26 year-old children of deceased or totally disabled veterans may be eligible to receive VA assistance. Applications and help in completing forms are available through WCCC's Financial Aid Office.

The new GI Bill provides educational benefits for students participating in the Selected Reserves. Students should check with their units to determine if they are eligible.

Suspension of VA educational assistance will result for the following reasons: not maintaining the college's minimum standards of academic progress, failure to attend regularly scheduled classes, and failure to comply with the regulations of VA Educational Assistance Program.

The veterans coordinator is available for help in securing educational benefits. Questions about compensation, pension, home loans and vocational rehabilitation may be directed to the Pittsburgh Regional Office.

Pennsylvania Office of Vocational Rehabilitation (OVR)

The OVR provides financial assistance to students who have disabilities that would normally impair their chances of obtaining occupational training and employment. To apply, students must complete the Free Application for Federal Student Aid. Additional information is available from the OVR offices in Pittsburgh and Johnstown and from the WCCC Student Development Office.

Student Placement

The Student Placement Services Office assists students in planning efficient and effective job searches, identifying current job openings, writing resumes and application letters and preparing for job interviews. This assistance is available to students seeking part-time, full-time, or summer employment and to graduates seeking full-time career-related positions.

The Placement Office maintains students' credential files and information about employers, and arranges for interviews between employers and students. For assistance call 724-925-4054.

Child Care/Preschool

The Campus Children's Center is located at the Youngwood campus. The center operates a childcare program for children ages 3-6 years, Monday-Friday, 7:30 a.m.-5 p.m., following the class schedule of the college. The center also operates a preschool program. All Campus Children's Center programs are licensed by the Pennsylvania State Department of Public Welfare and serve WCCC students, faculty and staff, as well as general community members. Childcare fees are based on an hourly rate and preschool tuition is a flat-fee per semester.

The center offers parents a safe, nurturing and creative educational environment for their children. The Campus Children's Center was awarded the Star 4 rating by the Pennsylvania Keystone Stars Child Care Program. Star 4 status is the highest rating possible for child care centers. For more information or to register your child, call 724-925-4156.

Student Services and Resources

Bookstore

The college bookstore is operated for the convenience of students, faculty and staff. In addition to textbooks and supplies for classes, the bookstore stocks stationery, clothing and gift items.

Prior to the start of each semester, the bookstore publishes a list of required books and their prices for each course, and monthly hours of operation. Students may obtain this information by accessing our website at wccc4me.org, calling or visiting the bookstore and providing the course code. Students who have misplaced their schedules may request a duplicate copy at the bookstore. The bookstore accepts payment by cash, check, MasterCard, or Visa.

Under certain circumstances, students approved for financial aid are permitted to defer payment for their book purchases. Students must have prior written approval from the Financial Aid Office in the form of a Bookstore Charge Authorization before books can be issued.

Students attending classes at the education centers may purchase their textbooks by using the main campus bookstore in Youngwood. If unable to do so, students should contact the bookstore, their education center or visit www.wccc.edu for alternative options.

Refunds on textbooks are allowed only under certain circumstances; requests for refunds must be accompanied by receipts and, if appropriate, a copy of the student's drop form. Copies of the complete bookstore return policy are available in the bookstore and are also attached to the receipt whenever a textbook is purchased.

Information regarding the bookstore is available online at my.wccc.edu.

Used Book Sale

A used book sale is conducted by the Student Government Association (SGA) at the Youngwood campus during the first two weeks of classes in the fall, spring and summer semesters. For more information call the Student Activities Office at 724-925-4055 or the Gymnasium Office at 724-925-4132.

Student Identification Cards

Student photo ID cards are provided free of charge to all currently registered credit students. ID cards are issued at the Student Information Center during normal business hours. Call 724-925-4196. Returning students should keep their ID cards and must have them validated at the Student Information Center each semester. Lost cards are replaced for $5.

Lock/Locker Rental

The Student Activities and Student Government Offices, located in Founders Hall, rents a limited number of locks/lockers to students, staff and faculty on a semester basis. Only school-issued locks are permitted on lockers and all others will be removed. A $10 deposit is required; $7 of that deposit will be refunded at the end of the semester when the lock is returned. Lockers are located in Founders, Commissioners and Science halls.

Information Sources

Bulletin Boards

The campus and education center bulletin boards are one of the main sources of information for students. Students may post signs and notices on the activities boards following the stamped approval by the Student Activities Office. There are restrictions regarding sign size and content and posting is permitted only on the bulletin boards. To obtain posting approval or more information, contact the Student Activities Office.

The Grapevine

This newsletter is distributed once a week during the fall and spring semesters to inform students, faculty and staff of current issues, programs and activities that affect the college. The Grapevine is also available on CampusCruiser. To have an announcement concerning a club or organization published in The Grapevine, contact the Gymnasium Office, 724-925-4132. Items are accepted by e-mail.

Food Service for Students

A cafeteria, located in Founders Hall, features both a snack bar and hot food line. The menu includes deli sandwiches, hot entrees, salads, pizza, pretzels, nachos and popcorn. Hours of operation are: for the fall and spring semesters, Monday through Thursday, 7:30 a.m. to 6 p.m. and Friday, 7:30 a.m. to 2 p.m.; and for the summer semester, Monday through Thursday, 7:30 a.m. to 1:15 p.m. In addition, there are vending machines located in each building at the Youngwood campus and the education centers.

Café Hospitality, a mini-restaurant operated by WCCC hospitality students and faculty, is also available to students. Café Hospitality serves lunch and/or dinner in the Commissioners Hall dining room on designated weekdays during the fall, spring and summer semesters. Seating is limited and reservations are required.

Transportation

Students are responsible for their own transportation to and from the college. Bus transportation is available via the Westmoreland County Transit Authority and schedules can be obtained by calling 1-800-834-WCTA.

Ride sharing is encouraged. Students needing rides and those willing to provide rides may post notices during the first three weeks of the semester on the Share-a-Ride bulletin board located in the 400 hallway of Founders Hall.

Student Services and Resources

Student Parking

Free and ample parking is available for students at the Youngwood campus and the education centers. Students may park only in designated areas. Illegally parked cars will be ticketed and fined. Consistent violators may have grades withheld and be unable to register for additional classes until fines are paid.

Disabled Student Parking

Students who wish to use the disabled student parking areas must have either a valid wheelchair license plate from the state or a state-issued plaque indicating the individual has a disability. Students also are required to obtain a WCCC parking tag from the Student Development Office. A temporary WCCC permit may be issued for short-term use only. Call the Student Development Office at 724-925-4057.

Student Use of Buildings

The Youngwood campus buildings are generally open for student use from 7 a.m. to 10 p.m. Monday through Thursday, from 7 a.m. to 5 p.m. Friday, and from 8 a.m. to 4:30 p.m. Saturday. Student use of the buildings at other times is permitted only with administrative permission. Hours for the education centers are determined by class schedules and vary each semester.

Emergency Message Procedure

Emergency telephone calls to students should be directed to the Student Development Office, 724-925-4051. The office will try to contact students in their scheduled classes, or if possible, elsewhere on campus. The emergency message will be given to students for their decision on any further action. Nonemergency calls are discouraged and may be refused by Student Development.

College Closing Information

Class cancellations and college closing due to inclement weather or other emergency conditions will be announced on area radio and television stations and the Internet. Information on specific radio and television stations, web sites and alternate routes to the campus will be distributed as well as published in The Grapevine each semester. As road conditions vary widely during inclement weather, students are advised to use their own judgement in deciding whether to attend classes.

Student Rights and Responsibilities

Student Regulations

Students enrolling at the college assume obligations to conduct themselves in a manner compatible with the college's function as an educational institution.

Code of Student Conduct

Academic Community

The central functions of an academic community are learning, teaching, research and scholarship. By accepting membership in the college, an individual joins a community ideally characterized by free expression, free inquiry, intellectual honesty, respect for the dignity of others and openness to constructive change. The rights and responsibilities exercised within the college community must be compatible with these qualities.

The rights of members of the college are not fundamentally different from those of other members of society. The college, however, has a special autonomy and reasoned dissent plays a part in its existence. All members of the college have the right to press for action on matters of concern by appropriate means.

At the same time, the college places emphasis upon certain values which are essential to its nature as an academic community. Among these are freedom of speech, academic freedom, freedom from personal force and violence, and freedom of movement. Interference with any of these freedoms must be regarded as a serious violation of the personal rights upon which the community is based.

Furthermore, although the administrative processes and activities of the college cannot be ends in themselves, such functions are vital to the orderly pursuit of the work of all members of the college.

Therefore, interference with members of the college in performance of their normal duties and activities must be regarded as an unacceptable obstruction of the essential processes of the college.

Moreover, it is the responsibility of all members of the academic community to maintain an atmosphere in which violation of rights is unlikely to occur.

The Student

Any and all laws of the Commonwealth of Pennsylvania, County of Westmoreland, and the Township of Hempfield which provides for the protection of persons and for the protection of personal or public property shall be in effect on college property.

Violations of the Code of Student Conduct

The following activities are prohibited and the student may face disciplinary action for engaging in such activities:

1. Entering or remaining in any lab, classroom, office, building, or campus facility after closing time without proper authorization
2. Use, possession, distribution, sale or purchase of illegal substances on college property or at college sponsored events
3. Use, possession, sale or purchase of alcoholic beverages
4. Use, possession, sale or purchase of illegal drugs
5. Illegal or unauthorized gambling on college property
6. Use, possession, sale, purchase, or concealment of any firearms, licensed or unlicensed, knives not required for classroom or laboratory use, weapons, explosives, or dangerous chemicals
7. Theft, willful defacement, or willful destruction of college property or personal property of others
8. Theft, including, but not limited to, intellectual property such as work products and computer software, either physically or through unauthorized invasion of computer files
9. Verbally or physically intimidating, coercing, or using physical force in a manner which causes another member of the campus community to be injured or fearful of physical harm
10. Using e-mail or other means of electronic communication to intimidate, threaten, or harass any member of the college community
11. Using another person's ID to gain access to the data communications network or the Internet
12. Using the data communications network for private or personal business or for any other purpose which is inconsistent with the research or instructional needs of the college
13. Operating a motor vehicle in a reckless manner
14. Smoking in areas of the campus not designated as smoking areas
15. Failure to identify oneself when requested to do so by a college administrative official, security officer, faculty, or staff member in performance of administrative duty
16. Intentionally furnishing false information to the college
17. Interfering with normal operations of the college
18. Interfering with classroom instruction
19. Any other actions incompatible with the operation of a public educational facility

Disciplinary Action

The college reserves the right to deny admission to any applicant or discontinue the enrollment of any student if, in the opinion of the college authorities, the association is not in the best interest of the student or the college.

The director of student development, upon receiving information that a student has committed a violation of the code of conduct, shall investigate the alleged violation. The investigation will normally include an interview with the concerned student. As a result of the investigation, the director may:

1. Dismiss the allegations as unfounded
2. Administer disciplinary action as appropriate, based upon the severity of the violation. Possible disciplinary actions could include: warning, suspension or expulsion.

Right of Appeal

A student who wishes to appeal the decision of the director of student development concerning a violation of the code of conduct must appeal the decision, in writing, within 10 days of the decision. Appeals will be referred to the Judicial Board.

Judicial Board

The Judicial Board has been designed to treat instances of violation of college rules and regulations by students. Such instances exclude behavior that can be defined as academic in nature.

The Judicial Board shall consist of six members, which will include student representatives selected by any means approved by SGA and three faculty and/or staff members appointed by the president. A chairperson will be selected, and all members of the committee, excluding the chairperson, shall have equal voting rights. The chairperson votes only in the case of a tie.

Procedures

1. The director of student development shall promptly forward to the chairperson of the Judicial Board any and all appeals made in connection with nonacademic matters.
2. The appeal must be presented in written form and should include particulars, including the people involved, dates, times and any other pertinent information.
3. All parties asked to appear at the hearing will be given a week's notice of the hearing. They will also be given a written statement of charges and the process to be involved in the hearing. Parties directly involved may invite witnesses to appear.
4. Once the Judicial Board has been apprised of all information, they make recommendations to the president concerning any action to be taken.
5. A written record of the hearings will be kept by the chairperson until the decision of the president has been made, after which time the records are to be destroyed. The decision of the president is final.

Disruptive Student Behavior

Due process must be afforded all students enrolled at WCCC. Such due process does not permit a student to interfere with the educational process provided all students in a course of study. Behavior that distracts or negatively influences the quality of the learning experience of all students is an infringement upon student rights. Specifically, behavior which is verbally abusive or physically threatening is considered disruptive and cannot be condoned.

The college has a responsibility to ensure the quality of the learning experience and, as a result, will require that:

1. Any student who exhibits behavior contrary to the operation of a positive learning situation in a course of study shall be alerted by the instructor about the effects of his/her behavior and the need for immediate change.
2. If the behavior persists, the circumstances will be reported by the faculty member to the division chair.
3. Consultations with the student, the instructor, and the director of student development may be requested. The designated chair (as indicated above) will determine whether the disruptive student will be permitted to continue in the course of study.
4. Within two working days (Monday through Friday 8 a.m. to 5 p.m.), notice of results from the consultation will be presented to the student in writing regarding the conditions that must be met and whether or not the student will be permitted to continue class attendance.
5. A student may appeal this decision by contacting the vice president for academic affairs and student services within two working days and requesting reconsideration. The decision of the vice president for academic affairs and student services will be final.
6. A copy of the decision will be retained in the office of the vice president for academic affairs and student services.

If a student's conduct is considered physically threatening to the class or the instructor, the student can be removed immediately. The division chair and the vice president for academic affairs and student services will determine if the student can return to class.

Because there is potential for disruption of the educational process, children are not permitted in classrooms during scheduled classes. Children are permitted on college property only when supervised by a parent or parent designated adult.

Ethical Statement for Student Computer and Data Communications Network Use

Westmoreland County Community College's data communications network and the systems by which it is interconnected and accessed exists to support the research and instructional needs of the college. Access to this system is a privilege granted to students and this privilege can be revoked for inappropriate conduct. While the right of free speech applies to communication in all forms, the college encourages civil and respectful discourse.

Some prohibited forms of communication include:

- Obscenity
- Defamation
- Threats
- Disruption of the academic environment
- Harassment based on sex, race, disability, or other protected status
- Anonymous or repeated message designed to annoy, abuse, or torment

Some prohibited forms of behavior include:

- Creating excessive noise or other actions that interfere with the work of others in the computer lab
- Using the computer system's capabilities to represent another person's work as your own; this action is considered a form of plagiarism
- Using another student's ID to gain access to the data communications network or allowing others to use your network ID
- Malicious attempts to harm or destroy another person's data, including uploading or creating computer viruses
- Attempting to gain unauthorized access to data, software, or systems
- Using the data communications network for personal or private business

All ethical principles that apply to everyday college life also apply to using the data communications network. The use of this network is encouraged for scholarly communications within the constraints of the Westmoreland County Community College Student Code of Conduct and this ethical statement.

Vehicle Regulations

To ensure the safety of students, staff, and visitors, the college has established parking rules and enforces all provisions of the vehicle code of the Commonwealth of Pennsylvania and Hempfield Township. A 15 mile-per-hour speed limit is in effect at all parking lots and college roadways.

Fines will be levied according to the following schedule:

Fines

Fines will be levied for the following violations:

	1st Offense	2nd Offense	3rd Offense
Trespass	$10	$25	$50
Blocking Traffic/Walkways	$10	$25	$50
Parking in Fire Lane	$10	$25	$50
Not Parked between Lines	$10	$25	$25
Use of Restricted Parking without a permit	$10	$25	$25
Use of Disabled Parking without a permit	$50	$50	$50

Recurring offenses may carry higher fines.

Fines may be paid at the Student Information Center. All fines are financial obligations to the college. WCCC reserves the right to withhold grades, transcripts or diplomas until all fines have been paid in full.

Drug and Alcohol Policy

The college recognizes that its own health and future are dependent on the physical and psychological health of its students, faculty and staff. Accordingly, it is the intent of the college to maintain a safe, healthful, and efficient work and learning environment for all. Being under the influence of alcohol or any other mind-altering drug while on campus may pose serious safety and health risks to both the user and other members of the WCCC community.

Therefore, the college maintains the following guidelines pertaining to alcoholic beverages:

1. The college will not sponsor student events which focus primarily on the consumption of alcohol.
2. Alcoholic beverages are not permitted at any student event held on the college campus.
3. When a student social event is held at any establishment with a license to sell alcoholic beverages, students 21 years old and older may exercise their legal right to purchase alcoholic beverages. Ascertaining the legality of service is the responsibility of the proprietor of the licensed institution.
4. The student club or organization sponsoring a social event shall be held accountable for compliance with the alcoholic beverage regulations.
5. Infractions of these regulations by student organizations may result in the impoundment of the organization's treasury and/or the placing of the organization on probation.
6. Infractions of these regulations by individual students may result in probation, suspension or dismissal from the college.

Students concerned about their own or another's drug/alcohol use are encouraged to contact a member of the college counseling staff in Student Development located in Founders Hall.

Treatment Services

Drug and alcohol treatment is available through the MYRIAD Project in Greensburg (724-834-0420). This is a state-licensed treatment facility that offers individual, family and group counseling services. Services are also available from Alcoholics Anonymous (412-471-7472) and Narcotics Anonymous (412-391-5247). Further information on treatment programs is available from the counseling staff of the college.

Legal Sanctions

Students & Employees:

Possession and/or distribution of illicit controlled substances constitutes a crime in the Commonwealth of Pennsylvania. Conviction may result in the imposition of a fine and/or imprisonment.

Students:

Possession and/or consumption of alcohol by persons under age constitutes a crime in the Commonwealth of Pennsylvania. Conviction may result in the imposition of a fine and/or imprisonment.

Smoking Policy

To protect the health and welfare of the students, employees, and general public, the college prohibits smoking thoughout all interior spaces of all Westmoreland County Community College buildings and vehicles. Smoking is permitted only at designated exterior entrances. Violations of this policy are subject to disciplinary action.

Student Rights and Responsibilities

AIDS Policy

Individuals who have AIDS, ARC or a positive HIV antibody test shall not be denied employment/admission or continued employment/enrollment at Westmoreland County Community College based solely on the condition. This policy and implementation thereof is based upon current guidelines of the Center for Disease Control and the American College Health Association.

An HIV antibody testing site can be reached by calling any of the following: Greensburg, 724-832-5315; Monessen, 724-684-2945; Washington, 724-223-4540; Uniontown, 724-439-7400; Pittsburgh, 412-578-8332; Johnstown, 814-533-2205; or 1-877-PA HEALTH.

For those who feel they may be at risk, be assured that testing is free, confidential and by appointment only. More information on AIDS can be obtained by calling the following:

National

STD Hotline 1-800-227-8922
U.S. Public Health Service AIDS Hotline
(English) 1-800-342-2437
(Spanish) 1-800-344-7432
(TTY/TTD) 1-800-243-7889
Social Security Administration 1-800-772-1213
National AIDS Clinical Trials Hotline 1-800-874-2572
Project Inform - experimental treatment updates
1-800-822-7422

Pennsylvania

Department of Health, Western District 412-565-5101
AIDS Factline 1-800-662-6080
Department of Education, Project SAVE
(Stop AIDS Via Education) 717-783-6788
Department of Public Welfare Targeted Case Management and Special Pharmaceuticals Benefits Administration 1-800-922-9384
Human Relations Commission (Pittsburgh)
412-565-5395

Allegheny County

Health Department Message Center 412-687-2243
Education Component
AIDS Information Line
STD Clinic
Pittsburgh Clinical Trials
Pitt Treatment Evaluation Unit 412-647-8125

Sexual Harassment

WCCC will not tolerate sexual harassment of any kind. All employees and students must avoid offensive and inappropriate sexual behavior and are responsible for assuring that the college environment is free from sexual harassment at all times.

Harassment on the basis of sex is a violation of Pennsylvania and federal laws. The purpose of the sexual harassment policy and grievance procedure of Westmoreland County Community College is to ensure that all employees and students of WCCC can work and learn in an environment free of harassment and hostility. Violations of this policy will result in appropriate disciplinary action.

Definition

Sexual harassment is a violation of Section 703 of Title VII of the Civil Rights Act of 1964 and is defined as "unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature when: (1) Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment; (2) Submission to or rejection of such conduct by an individual is used as the basis for employment decision or grades affecting such individual; or (3) Such conduct has the purpose or effect of substantially interfering with an individual's work or classroom performance or creating an intimidating, hostile, or offensive working or study environment."

Policy

The college will not tolerate sexual harassment. Any behavior that represents repeated or unwanted sexual attention or sexual advances, including behavior between students is prohibited. A student who feels he/she has been sexually harassed is encouraged to report such incidents to the director of student development in the Student Development Center. The student will be advised of the appropriate complaint procedures.

Equal Opportunity Laws

WCCC abides by all federal affirmative action regulations, Inquiries should be directed to the Affirmative Action Office, Room 501, Founders Hall.

Federal Regulation Title VI

Title VI of the Civil Rights Act of 1964 requires that discrimination based on race, color, or national origin be eliminated from programs receiving federal financial assistance.

Federal Regulation Title VII

Title VII prohibits discrimination because of race, color, religion, sex, or national origin in all conditions of employment at WCCC, such as the student work-study program.

Americans With Disabilities Act

The ADA is civil rights legislation designed to ensure that people with disabilities will not be discriminated against and to bring them into the mainstream of public life. It requires employers to make "reasonable accommodations" to enable employees with disabilities to do their jobs. It prohibits employers from denying employment to a person with a disability who is able to perform the "essential functions" of a particular job. Contact the director of student development at 724-925-4050 for additional information.

Federal Regulation Section 504

"No otherwise qualified disabled individual...shall solely by the reason of his/her disability, be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity receiving federal financial assistance." Contact the Student Development Office at 724-925-4189 for more information.

Student Rights and Responsibilities

Federal Regulation Title IX

Title IX was passed by both houses of Congress after Congressional hearings, held in 1970, documented the pervasiveness, perniciousness, and long-range consequences of sex discrimination in educational policy, practice and attitude.

Student Grievance Procedures/ Affirmative Action

The following are suggested procedures for students who have a grievance relating to discrimination as prohibited by Title VI, Title VII, Title IX, or Section 504. The grievance procedures will be handled as confidential to the content as the aggrieved person desires, and assurances will be given that all information will be kept confidential by the Affirmative Action Officer (AAO).

1. The student is encouraged, if possible, to clarify the issue with the faculty or staff member involved in the grievance.
2. Contact Dr. Mary Stubbs, Affirmative Action Office, 724-925-4097.
3. The AAO will take informal steps to clarify and resolve the matter, e.g., discussion with student, meeting with the staff or faculty member involved and/or that person's supervisor.
4. If the complaint is not resolved through informal means, the AAO should request the involvement of the appropriate division chair who will attempt informal resolution. If informal resolution is not possible, a formal hearing board should be appointed, giving both the student and the defendant equal representation. The AAO shall chair this board, voting in the case of a tie; one member selected by the defendant; one member selected by the griever; and two members selected by the president. The committee shall then meet to resolve the issue and make its recommendation to the president, based upon its hearing.
5. When the president has reviewed the committee's findings and recommendations, the griever will be notified by the AAO of the president's decision. If the griever does not accept this, he/she can request of the president that a conference be held to discuss the issues involved. The president, within 10 college days after receiving the appeal, shall meet the griever and the AAO in an attempt to resolve the grievance.
6. The griever, if not satisfied with the decision made in the preceding steps, may submit a written appeal to the board of trustees within 10 college days. The board of trustees, within 45 college days after receiving the appeal, shall hold a hearing at which those involved may present their sides of the issue.

Family Educational Rights and Privacy Act

Federal law requires that the college provide students access to their academic files. Information contained in the academic file relates only to the student's academic history and performance, including: New Student Information Form, permanent transcript, placement test scores, course registration information, course approval forms (i.e., Course Substitution Form, Course Waiver Form, Advance Standing Form, etc.), and graduation information (when applicable).

Students wishing to inspect the content of their files may do so by completing a Request for Academic File Review form and submitting it to the Records Office. Students may inspect their academic files during normal working hours (Monday through Friday, 8 a.m. to 5 p.m.) provided that they have submitted a written request at least two working days in advance.

Students have the right, by law, to keep all information in their files confidential. However, the college has established a category known as Directory Information. Directory Information may include: student name and address, major field of study, dates of attendance, and degrees and awards received. Directory Information is normally released without a signed consent by the student.

Since Directory Information does not include grades, financial data or any other strictly personal data, the college expects very few students will wish this information withheld. If, however, a student does not wish Directory Information released without a signed consent, a Request to Prevent Disclosure of Directory Information form must be submitted to the Records Office immediately upon enrollment. This written notice to keep Directory Information confidential will be placed in the student's file and no information will be released unless a signed release form is received. Any further questions should be directed to the Records Office.

Student Right-To-Know

Student Right-To-Know is a public law that requires institutions of higher education receiving federal financial assistance to provide certain information regarding the graduation/persistence rates of students. However, at the time of publication, the method by which this information is to be distributed has not been decided by the federal government. Therefore, students who wish to review information on graduation/persistence rates may do so in the Admissions Office.

Personal Data Record

The Personal Data Change form is to be used to change name, address or telephone number. This form is available at the Student Information Center. It is the responsibility of each student to keep his/her personal data record updated.

STUDENT RIGHTS AND RESPONSIBILITIES

Campus Security

Crime Awareness and Campus Security is a public law that requires colleges to report incidences of crime statistics on their campuses.

The following is the official report of the campus statistics as documented through the Pennsylvania State Police.

Offenses	2006 Offenses Known
Criminal Homicide	
Rape	
Robbery	
Assault	
A. Firearm	
B. Knife or cutting instrument	
C. Other dangerous weapon	
D. Hands, fists, feet, etc.	1
E. Other assaults - not aggravated	1
Burglary	
A. Forcible entry	
B. Unlawful entry - No Force	
C. Attempted forcible - Entry	
Larceny-Theft (except motor vehicle)	13
Motor Vehicle Theft (other vehicles)	
Arson	
Forgery/Counterfeiting	
Fraud	
Embezzlement	
Receiving Stolen Property	
Vandalism	
Weapons Offenses	
Prostitution and Vice	
Sex Offenses	
Drug Abuse Violations	
Gambling	
Offenses Against Family	
Driving Under the Influence	
Liquor Laws	
Drunkenness	
Disorderly Conduct	
Vagrancy	
All Other Offenses	

This report is in compliance with the Pennsylvania College and University Security and Information Act, as documented through the Pennsylvania State Police to inform students of WCCC Crime Statistics.

For additional information concerning Section 201—Crime Awareness and Campus Security, contact the WCCC Library.

Procedure for Resolution of Student Concerns Involving Faculty

The following procedure is recommended for those instances in which a student has an academic concern about a faculty member:

1. The student should make an appointment with the faculty member and discuss the problem.
2. If the student feels that he/she cannot meet with the faculty member, he/she should seek the advice of his/her faculty advisor and/or counselor.
3. If he/she has seen the faculty member and is still not satisfied, the student should make an appointment with the division chair to whom the faculty member reports.
4. If the concern is not resolved at the division level, the student should make an appointment to see the vice president for academic affairs and student services.
5. If the concern is still not resolved after meeting with the vice president for academic affairs and student services, the student may request an appointment with the president. The decision of the president in these matters is final.

The college expects students to maintain high standards of academic integrity in all college courses.

Academic Dishonesty

Academic dishonesty in any form will not be tolerated. The following procedure has been developed to prevent occurrences of academic dishonesty and to guide faculty and students should they become involved in such incidents.

Academic dishonesty includes, but is not limited to, the following:

1. **Cheating:** the intentional use or attempted use of unauthorized materials, information or other aids in an academic exercise
2. **Fabrication:** the intentional or unauthorized falsification or creation of any information or citation in an academic environment
3. **Facilitating academic dishonesty:** helping or attempting to help another to commit a dishonest academic act
4. **Plagiarism:** the use of the works of another as one's own in any academic environment

Faculty Responsibilities

The student will be notified no later than five working days after observation or discovery of a specific dishonest incident. Notification will include a description of the infraction, the potential penalty, and the student's right to appeal. A copy of the written notification will be forwarded to the appropriate division chair and the vice president for academic affairs and student services.

Vice President for Academic Affairs and Student Services Responsibilities

The vice president for academic affairs and student services shall retain a master file of all documented cases of academic dishonesty. The faculty-assigned penalty may be revised if the master list shows multiple infractions. If the penalty is revised, the student will be notified immediately in writing.

Student Appeal Process

A student may appeal the charge of academic dishonesty by contacting the division chair within five days of the date of the notification letter. At this time the student must submit a written request for appeal, with appropriate justification to support the appeal. The appeal process is limited to challenging the charge of academic dishonesty; once the charge of academic dishonesty has been established, the penalty is not subject to appeal.

The student's appeal, including review of the merits of the charge, will be heard by the division chair and two division faculty selected on a rotating basis. The faculty member making the charge will be present. If the student's concern is not resolved, he/she may appeal to the vice president for academic affairs and student services whose determination will be final.

Penalties

Any infraction could result in one of the following: grade of F on the assignment/examination in question, completion of an alternate assignment, or a grade of F for the course. Multiple infractions, whether within the same course or in a combination of courses, will be grounds for suspension and/or dismissal from the college.

Intercollegiate Athletics, Intramurals and Leisure Programs

Intercollegiate sports competitions include coeducational golf, coeducational bowling, men's baseball, men's and women's basketball, and women's volleyball in the fall and women's softball, men's baseball and coeducational golf in the spring. The teams compete for local and state honors in the Western Pennsylvania Collegiate Conference and the Pennsylvania Collegiate Athletic Association and also for regional and national honors that are sponsored by the National Junior College Athletic Association. All student athletes must satisfy the eligibility provisions of the National Junior College Athletic Association and the academic probation policy of the college.

An intramural program, incorporating a variety of activities, is offered for full- and part-time students who wish to enter team or individual tournaments regardless of their ability levels. Offerings are available for women and men as well as in a coeducational format. The key ingredient to participation is interest, not skill level.

The indoor physical education facilities at the college include a gymnasium, two racquetball courts, an indoor jogging track, locker rooms and a fitness center that features a variety of strengthening machines and aerobic equipment. Hours are posted at the gym entrance. Students should check the weekly schedule of events that may close portions of the gymnasium facilities.

The outdoor facilities include softball, baseball and a multipurpose field.

Students are encouraged to utilize the facilities for their leisure use so a pattern of lifelong physical fitness is developed. A variety of credit and noncredit physical education courses are scheduled to assist in this endeavor.

Children are not permitted in the gymnasium.

Student Activities

The student activities program at Westmoreland County Community College is designed to provide recreational, educational, social and cultural opportunities for students. Participating in activities provides an ideal opportunity in which students develop and perfect skills as group members and effective leaders.

Student Government Association

The Student Government Association (SGA) is the representative voice of the student body. Member students promote and represent the rights and interests of students. The student body elects one voting senator for every 200 students. The voting senators comprise a legislative group which conducts business for the student body at-large. Officers consist of a president and a vice president who are elected by the student body, and a secretary and treasurer who are appointed by the president and vice president with the approval of the SGA senators.

The purpose of the Student Government Association is to:

- Encourage superior standards in leadership, loyalty, honesty and mutual respect
- Provide an effective means for students to express their wishes on matters directly concerning them and the college
- Endeavor to increase student participation in all college activities and generate student spirit through extracurricular activities
- Act in the best interests of the student body at all times and encourage activities of a social, educational and cultural nature
- Provide a means of communication among the student body, the Student Government Association, the faculty and the administration of the college
- Provide a basis through which the students of Westmoreland County Community College may communicate with the students of other institutions of higher learning throughout the area
- Recognize and encourage all officially approved student clubs and organizations on campus
- Control expenditures of funds received for the benefit of the student body
- Carry out the provisions of the SGA Constitution

At its weekly meetings, the SGA discusses problems that arise within the college community, especially those which directly affect students, and seeks solutions to these problems. It also adopts practices and procedures that integrate the activities of other student organizations with the total college program and serves as a liaison among students, faculty and administration.

The SGA plans and conducts a series of college-wide activities each semester. Events have included leadership workshops, community activities such as the annual Red Cross blood drive, charity fundraising, special events with local area colleges, Drug and Alcohol Awareness Week and dinner dances.

The SGA supports and finances the following ongoing services which benefit students: athletic/intramural program, Judicial Board, Campus Children's Center, CrossRoads, Drama Guild, Black History Month, Women's History Month and Cultural Programming.
Advisor: Kelly Carpenter

STUDENT LIFE

Cultural Programs

Through the Cultural Programming Board, the college offers the community a performing arts series of theatre, dance, and music by regional and national touring artists. Each year, the college holds exhibits of WCCC student work, the Juried Photography Exhibit, Juried High School Art Exhibit, and the Westmoreland Art Nationals sponsored by WCCC and the Westmoreland County Arts and Heritage Festival.

Clubs and Organizations

College clubs provide opportunities for growth in areas of special interest. Membership is open to all students. Coordinated through the Student Activities Office, the following clubs are open to students:

Art Club

The Art Club provides a forum for students to exchange ideas, learn about their field and showcase artwork. Activities are organized that expand awareness of the art profession and take advantage of cultural events in the area. Numerous field trips are arranged. Every spring students will have the opportunity to showcase, curate and stage an exhibition in the Gallery in Science Hall. Advisor: Kathleen Mendus-Dlugos

Aware Student Coalition

The Aware Student Coalition is a social organization open to all students. The purpose of the organization is to bring cultural events to the college that will assist in developing black awareness. This organization will also act as a liaison between the college and community and aid in the recruitment of minority students. Advisor: Carlene Williams

Criminal Justice Fraternity

The Criminal Justice Fraternity is an outlook organization on legal procedures in the community. It is designed for students interested in law enforcement as a career. The purpose is to familiarize criminal justice students with situations within the environment that they may encounter in the future. Some group projects include: visits to a prison, a court trial and a correctional institute. Advisor: Randy Slagle

Cross-Roads

Cross-Roads is the student-produced college newsmagazine. It attempts to address the diversity of the college population and generate an exchange of information by becoming a forum which reflects the interests of students, faculty, staff and administration. Membership on the Cross-Roads editorial board requires a substantial commitment of time and effort. Interested students may contact faculty advisor V.S. Ferretti.

Drama Guild

The Drama Guild enables student members to stage at least one formal theatrical production each academic year and promotes appreciation of the theater. All students are involved in the total production from role participation through performing behind the scenes technical tasks. Advisor: Mike Hricik

Early Childhood Education Club

The Early Childhood Education Club is designed to promote community interest and involvement in the field of child care and to give a broader range of knowledge in this career area. The club also helps with community activities involving children. Advisor: Beth Hoden

Horticulture Club

The Horticulture Club strives to help its members learn more about horticulture through field trips, guest speakers and campus projects. It also promotes fellowship among the members through various events. It is open to WCCC students. Advisor: Dr. Xuri Zhang

Hospitality Club

The Hospitality Club comprises students in culinary arts, baking and pastry, dietetic technician, hotel/motel management, restaurant/culinary management and travel and tourism majors. The club promotes hospitality awareness in the community and on campus through fund-raisers, social events, field trips and guest speakers. Advisor: Cindy Komarinski

Human Services Club

The Human Services Club is designed to promote community interest and involvement in the field of human services and to give a broader range of knowledge and practical experience in this career area. The club promotes human service awareness on campus. Advisor: Joyce Clohessy

Nursing Students Association-Level I

NSA Level I is open to all students currently enrolled in Level I nursing courses at WCCC. The purposes of the association are to: 1) assume responsibility for contributing to nursing education in order to provide for the highest quality health care; 2) aid in the development of the whole person, especially in the role and responsibility for the health care of people in all walks of life; and 3) coordinate Level I nursing students' interests with those of Level II, the WCCC community and the community at-large. Advisor: Sue Wojciechowski

Nursing Students Association-Level II

The membership of this organization includes all students enrolled in Level II. The purpose of NSA Level II is to provide a means for students to contribute to their courses of study and to coordinate students' activities and interests with those of Westmoreland County Community College. Advisor: Sue Wojciechowski

NSNA/SNAP - WCCC Chapter

NSNA (National Student Nurse Association) is a national professional organization open to all student nurses. SNAP (Student Nurse Association of Pennsylvania) is a state professional organization for student nurses. Students on both levels are invited to join the professional groups. Students participate in health education activities and work toward promotion of nursing as a profession. They participate at the regional, state and national level by attending workshops and conventions that focus on current professional interests and concerns. Advisor: Carol Coles

NTS Connection

The purpose of the NTS Connection is to provide support and activities geared to the nontraditional student population. The club promotes and supports intergenerational friendship and relationships. It also includes educating the nontraditional student on financial aid and other college support systems and helping to ensure the nontraditional student enjoys the WCCC college experience. Membership is open to all nontraditional students who are interested in taking an active role in the enrichment of the collegiate experience.
Advisor: Cheri Kramer

Phi Theta Kappa

Phi Theta Kappa is the only nationally acclaimed honor society serving America's two-year colleges and associate degree granting institutions. Election to the honor society is open to any student who has completed at least 15 credit hours (either full- or part-time) at WCCC. Candidates must possess a cumulative grade point average of 3.5 or better in order to be considered for selection.

The purpose of the society is to recognize academic excellence among students in two-year colleges, provide opportunities for intellectual interchange and assist those seeking to transfer to four-year institutions. Phi Theta Kappa also offers scholarship opportunities, student directed honors projects and the chance to attend regional and national meetings of the society. Advisors: Dr. Patricia Guth, Darlene Pabis

Reach Out Club

The Reach Out Club meets for a time of Christian fellowship and sharing of God's Word. Guest speakers and musicians are often invited to the weekly meetings. Advisor: Dorothy Ridinger

Republican Club

The Republican Club offers students the opportunity to participate in the U.S. political process through student-led and organized political discussions and activities. Advisor: Patricia Minton Kennedy

Ski Club

The Ski Club is open to all students and faculty members interested in downhill skiing. The club's purpose is to take weekly ski trips to local ski areas at discount prices. Advisor: George Lewark

Student American Dental Assistants Association

The Student American Dental Assistants Association is an organization composed of dental assisting students. The association helps to promote the profession of dental assisting and educational gain outside of the classroom. It also promotes awareness of the WCCC Dental Assisting program. Advisor: Dorothy Ridinger

Student American Dental Hygienists Association

The Student American Dental Hygienists Association is an organization comprised of dental hygiene students. The association helps to promote educational gain in the profession outside of the classroom. Advisor: Mary Kay Huesdash

Scheduling of Events and Activities

Proposed events and activities must be discussed with and approved by the coordinator of student activities. This must be completed at least two weeks in advance of the proposed event or activity.

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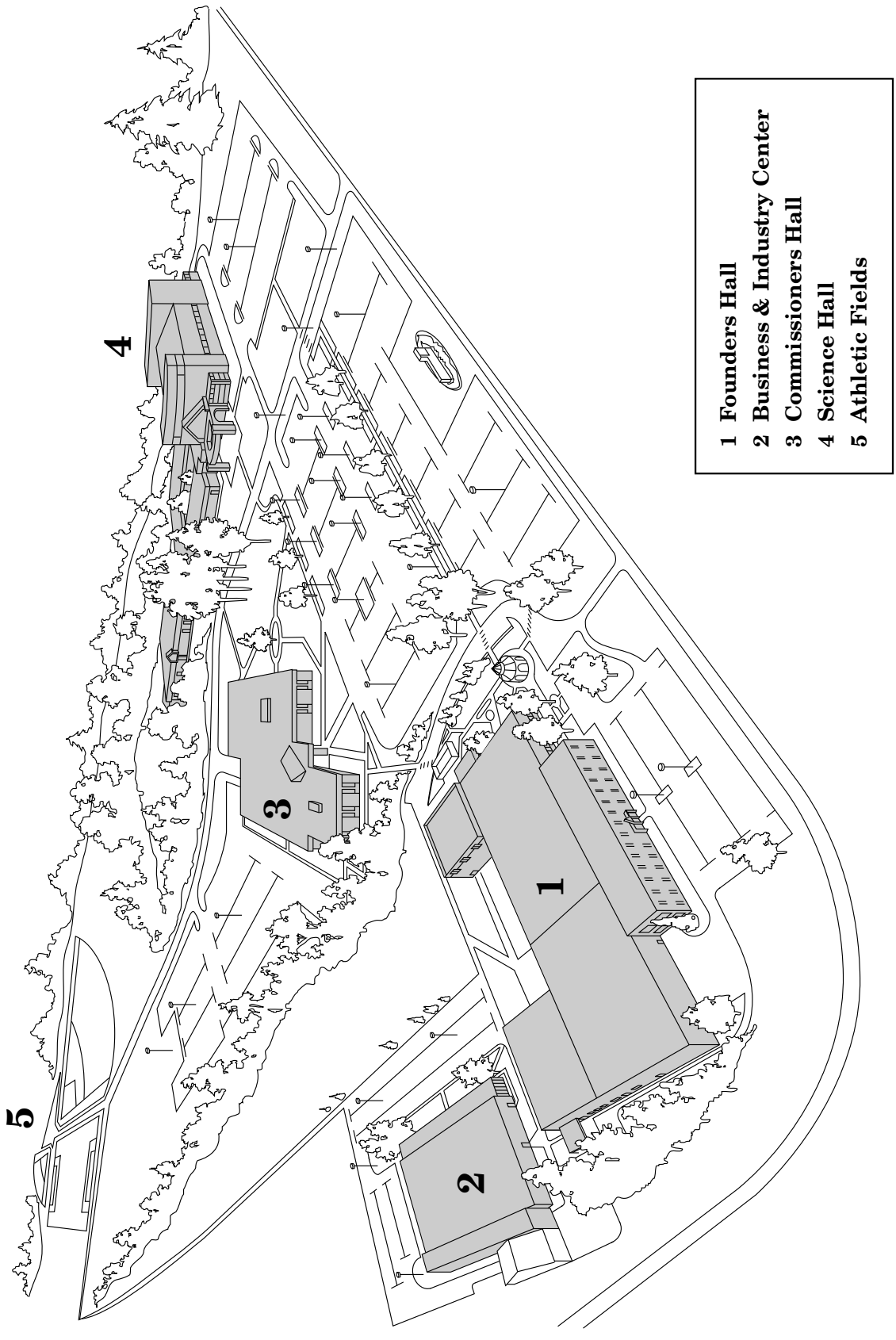
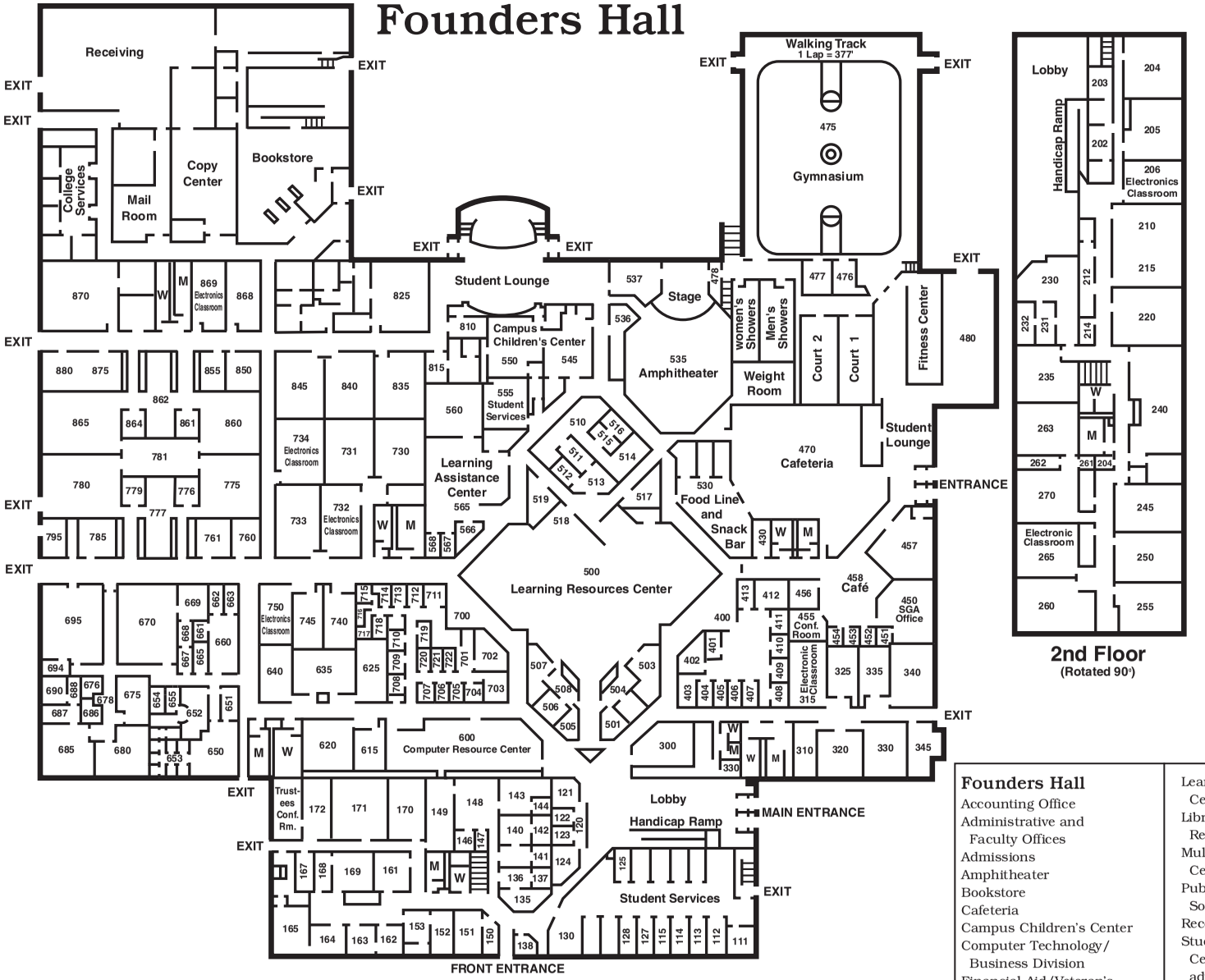


Founders Hall



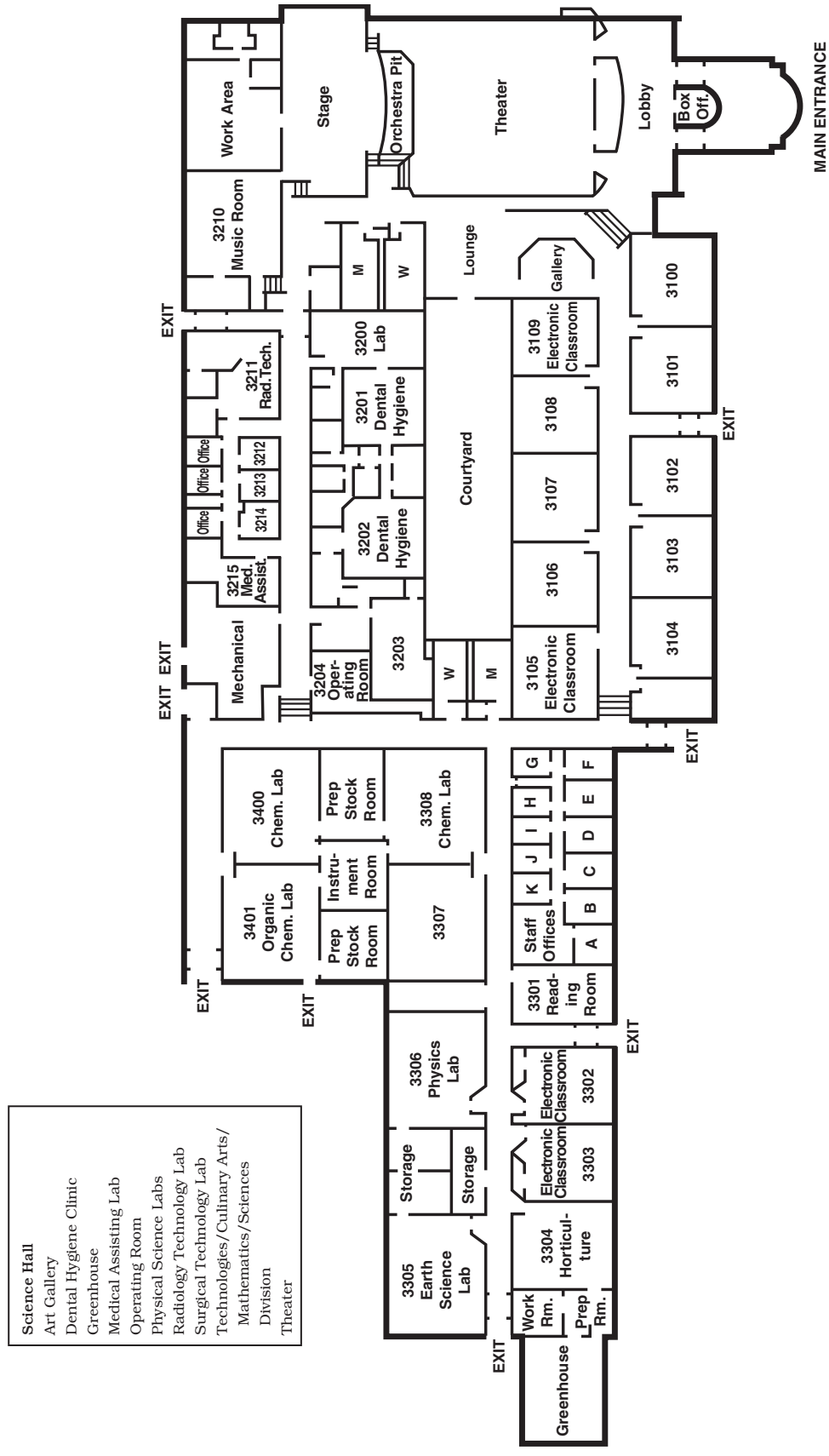
Founders Hall

- Accounting Office
- Administrative and Faculty Offices
- Admissions
- Amphitheater
- Bookstore
- Cafeteria
- Campus Children's Center
- Computer Technology/ Business Division
- Financial Aid/Veteran's Affairs
- Gymnasium/Fitness Center
- Human Resources
- Learning Assistance Center - tutoring, testing
- Library/Learning Resources Center
- Multimedia Technology Center
- Public Service/Humanities/ Social Sciences Division
- Records Office
- Student Development Center - counseling, advising
- Student Activities
- Student Lounge
- Student Placement/ Cooperative Education

Commissioners Hall

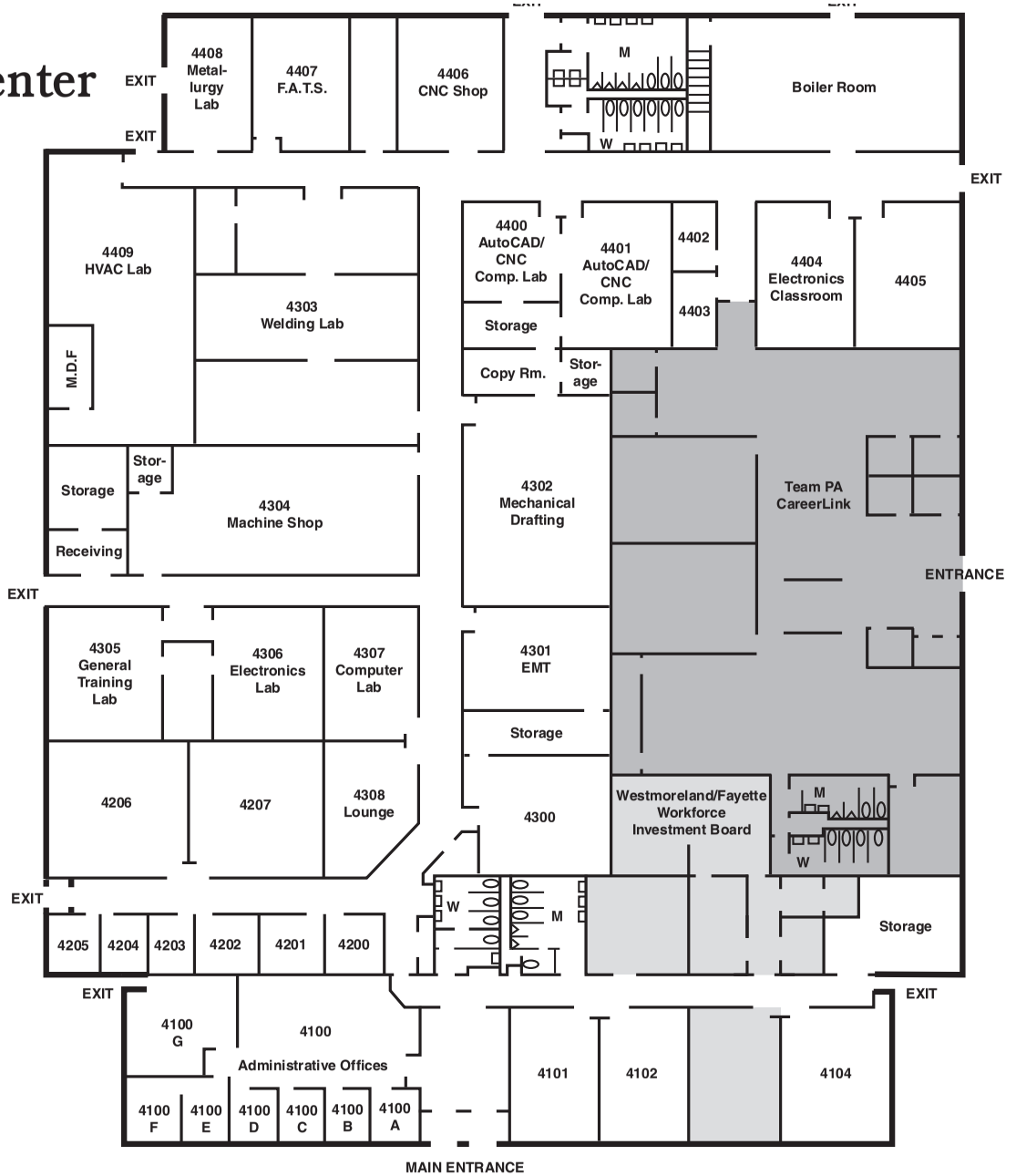
Commissioners Hall
Continuing Education Grants Management
Culinary Arts Kitchen/Dining Complex
Dining Rooms
Lecture Room
Health Professions/Biology Division

Science Hall



Business & Industry Center

Business & Industry Center
Business & Industry Center Offices
CADD/CAM
Community Education, Workforce & Community Development Office
Computer Numerical Control
Drafting
Electronics
Firearm Training Simulator (F.A.T.S.)
Heating, Ventilation, Air-Conditioning & Refrigeration
Machine Technology
Team PA CareerLink Office
Welding
Westmoreland/Fayette Workforce Investment Board



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Application for Admission

This information is used to comply with federal reporting and has no effect on admission to the college; however your registration cannot be processed without complete information.

Admission term you wish to begin: ❑ Fall ❑ Spring ❑ Summer Year 20_____

Admit Status: ❑ First-Time Freshman ❑ Readmit ❑ Transfer

Major/Program of Interest (see code list on page 224) _____ _____ _____ _____ _____

Are you: ❑ A visiting student from another college ❑ Not seeking a degree, diploma or certificate

Social Security Number ☐☐☐ – ☐☐ – ☐☐☐☐

Last Name_____ First Name_____ M.I. _____

Address _____

City_____ State _____ Zip Code _____ County_____

Primary Phone Number_____ Birth Date_____ Gender: ❑ Male ❑ Female

Marital Status: ❑ Married ❑ Single ❑ Divorced ❑ Widowed ❑ Separated Number of dependents _____

Ethnicity: ❑ **Hispanic or Latino:** A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.

Race:

❑ **White:** A person having origins in any of the original peoples of Europe, the Middle East or North Africa

❑ **Black or African American:** A person having origins in any of the black racial groups of Africa.

❑ **Native Hawaiian or Other Pacific Islander:** A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

❑ **Asian:** A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

❑ **American Indian or Alaska Native:** A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.

❑ **Two or More Races:** All persons who identify with more than one of the above five races.

Are you employed? ❑ Yes ❑ No If yes, how many hours a week do you work _____

E-mail Address _____ Former Last Name _____

How long have you lived in PA? _____ years _____ months

How long have you lived in Westmoreland County? _____ years _____ months

I certify that my legal residence is in _____ County.

Drivers License: State _____ Number _____ Issue Date _____ Expiration Date _____

Are you a United States Citizen? ❑ Yes ❑ No

APPLICATION FOR ADMISSION

If you are not a U.S. citizen, please indicate:

Visa status: _____ Country of Citizenship: _____

Are you a permanent resident of the U.S.? ❑ Yes ❑ No

If yes, indicate Alien Registration Number: _____

Is English your primary language? ❑ Yes ❑ No If no, please specify language spoken _____

Are you a high school graduate? ❑ Yes ❑ No Highest grade completed _____

Name of high school _____ _____ Month/Year of Graduation/GED _____

Are you a Tech Prep student? ❑ Yes ❑ No

If yes, Technical High School/Program enrolled in _____

Previous college(s) attended

_____

Name of College **Dates attended** **Degree earned**

_____

Name of College **Dates attended** **Degree earned**

Is either of your parents a college graduate? ❑ Yes ❑ No If yes, ❑ 2-year or ❑ 4-year

Educational Goals *(check ONE only)*

❑ Earn degree, then transfer	❑ Personal/self-improvement	❑ Summer course(s) only
❑ Earn degree, then work	❑ Upgrade/develop job skills	
❑ Take course(s), then transfer	❑ Career growth	

I certify that I have answered all applicable questions and that all information is true to the best of my knowledge. I understand that any deliberate falsification or omission of application data may result in denial of admission or dismissal from the college.

_____ _____

Applicant Signature **Date**

Please send this completed form along with a $10 nonrefundable processing fee to:

Westmoreland County Community College
Admissions Office
145 Pavilion Lane
Youngwood, PA 15697-1898

Make check payable to "WCCC."

Notice of Nondiscrimination

Westmoreland County Community College will not discriminate in its educational programs, activities or employment practices based on race, color, national origin, sex, sexual orientation, disability, age, religion, ancestry, union membership or any other legally protected classification. Announcement of this policy is in accordance with state law including the Pennsylvania Human Relations Act and with federal law, including Titles VI and VII of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, Section 503 and 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, and the Americans with Disabilities Act of 1990. Inquiries should be directed to the Affirmative Action Officer (presently Dr. Mary Stubbs), Westmoreland County Community College, 501 Founders Hall, Youngwood, PA 15697, 724-925-4097.

MAJORS

Associate in Arts Degree

The associate in arts degree is designed to parallel the first two years of a baccalaureate degree and transfer to four-year colleges and universities. Some of the areas of study are listed below. This list does not include all possible baccalaureate degree majors. If you plan to transfer to a four-year institution in a major other than one listed on this page, or if you are undecided as to your major, use code LIB.

Transfer — A.A. Degree

LAA	Arts Transfer
LBI	Biology Transfer
LBU	Business Transfer
LCH	Chemistry Transfer
LCI	Chiropractic Transfer
LCM	Communication Transfer
LCO	Computer Science Transfer
LCR	Criminal Justice Transfer
LEN	Engineering Transfer
LEG	English Transfer
LPH	Health & Physical Education Transfer
LHE	Health Professions Transfer
LHI	History Transfer
LHU	Humanities Transfer
LLI	Library Science Transfer
LMA	Mathematics Transfer
LMU	Music Transfer
LPY	Physics Transfer
LPO	Political Science Transfer
LPS	Psychology Transfer
LSO	Sociology Transfer
LTE	Teacher Education Transfer
LIB	Undecided Transfer

Associate in Applied Science Degree, Diploma, Certificate

If you are undecided about a major, choose the code that is closest to your possible major.

ACCOUNTING
ACT Degree
ACCTS Computer Accounting and Tax Specialist - Certificate

ARCHITECTURAL DRAFTING AND DESIGN
ADD Degree

BAKING AND PASTRY
BAA Apprenticeship - Degree
BAN Non-Apprenticeship - Degree
BAPAA Apprenticeship - Certificate
BAKPA Non-Apprenticeship - Certificate

BIONANOTECHNOLOGY
BNT Degree

BUSINESS
FIN Financial Management - Degree
BUS General Management - Degree
HRM Human Resource Management - Degree
MKM Marketing Management - Degree
RSM Real Estate Management - Degree
SBM Small Business Management - Degree
BUSG Management - Diploma
FINMG Financial Management - Certificate
BUSMG General Management - Certificate
HRMGT Human Resource Management - Certificate
MKTMG Marketing Management - Certificate
RESMG Real Estate Management - Certificate
SMBMG Small Business Management - Certificate

COMMERCIAL ART AND DESIGN
CAR Degree

COMPUTER INFORMATION SECURITY
CIS Degree
COIFS Certificate

COMPUTER NUMERICAL CONTROL
CNU Degree
CNUCO Certificate

COMPUTER SYSTEMS ELECTRONICS
CSE Degree

COMPUTER TECHNOLOGY
CON Networking - Degree
CPE Programming for the Enterprise - Degree
CTS Technical Support - Degree
CTT Telecommunications - Degree
COTE Diploma
CODMG Database Development - Certificate
COFIO Fiber Optic Technologies - Certificate
COTEC Microcomputer Applications - Certificate
CONET Networking - Certificate
COREP PC Repair/A+ - Certificate
COPRG Programming - Certificate
COWED Web Development - Certificate

CRIMINAL JUSTICE
CJU Degree
CJS Information Security - Degree
CJUCO Corrections Officer - Certificate

CULINARY ARTS
CUA Apprenticeship - Degree
CUN Non-Apprenticeship - Degree
CULAA Apprenticeship - Certificate
CULAR Non-Apprenticeship - Certificate

***DENTAL ASSISTING**
PRDE Diploma
EXFDA Expanded Functions Dental Assisting - Certificate

***DENTAL HYGIENE**
PRD Degree

DIETETIC TECHNICIAN/NUTRITIONAL SERVICES MANAGEMENT
NSM Degree

DINING ROOM MANAGEMENT
DINRM Certificate

DRAFTING AND DESIGN TECHNOLOGY
DDC CADD/CAM - Degree
DDM Mechanical Drafting - Degree

EARLY CHILDHOOD EDUCATION
ECE Degree
EACH Diploma
EACHD Director - Certificate
EACHE Certificate

ELECTRONIC COMMERCE
ECT Degree

ELECTRONICS ENGINEERING TECHNOLOGY
EET Electronics - Degree

ENGINEERING TECHNOLOGY
ENT Degree

FIRE SCIENCE TECHNOLOGY
FSC Degree
FSCT Diploma
FSCTE Certificate

GRAPHIC AND WEB DESIGN
GRC Graphic Design - Degree
WEB Web Design - Degree
WED Web Development - Degree
WEP Web Publishing - Degree
GRCDN Graphic Design - Certificate
WEBDN Web Design - Certificate
COWED Web Development - Certificate
GRC2D 2D Animation - Certificate
GRC3D 3D Art/Animation - Certificate

HEATING, VENTILATION, AIR-CONDITIONING & REFRIGERATION
HVA Degree
HVARE Certificate

HORTICULTURE
HOR Degree

HOTEL/MOTEL MANAGEMENT
HMM Degree
HOMOT Certificate

HUMAN SERVICES
HUS Degree

LEGAL ASSISTING
LEA Degree
LEAS Diploma

LIBRARY SCIENCE
LIBSC Certificate

MACHINE TECHNOLOGY
MAT Degree
MATEL Certificate

MANUFACTURING TECHNOLOGY
CHP Chemical Process Technology - Degree
MMA Manufacturing Maintenance Apprenticeship - Degree
MAP Manufacturing Process Technology - Degree
NFM Nanofabrication Manufacturing - Degree

***MEDICAL ASSISTING**
PRMA Diploma

MULTIMEDIA & PHOTOGRAPHY
MMT Multimedia Technology - Degree
PHO Photography - Degree
ADOBE Adobe Video Studio - Certificate
APPLE Apple Final Cut Studio - Certificate
PHOTO Photography - Certificate
VIDTE Video/Television - Certificate

***NURSING**
PRNU Degree

OFFICE TECHNOLOGY
OTA Office Administration - Degree
OTM Medical Administration - Degree
OADM Office Administration - Diploma
OMTR Medical Transcription - Diploma
OMADM Medical Administration - Certificate
OMICC Medical Coding - Certificate
OADMN Office Administration - Certificate

RESTAURANT/CULINARY MANAGEMENT
RSC Degree

***RADIOLOGY TECHNOLOGY**
PRRT Degree

***SURGICAL TECHNOLOGY**
PRSU Diploma

TRAVEL AND TOURISM
TTO Degree

TURFGRASS MANAGEMENT
TUR Degree

WELDING ENGINEERING TECHNOLOGY
WET Degree
WELTE Certificate

****You must complete the Allied Health Program Application in addition to this form. Allied Health Program Applications are available by calling the Admissions Office at 724-925-4077.***

Westmoreland County Community College
Youngwood Campus
145 Pavilion Lane
Youngwood, PA 15697
724-925-4000

Alle-Kiski Education Center
899 East Hill Drive
New Kensington, PA 15068
724-335-8110

Bushy Run Education Center
6707 Mellon Road
Export, PA 15632
724-327-8090

Greene County Education Center
100 EverGreene Drive
Suite 102
Waynesburg, PA 15370
724-627-3464

Indiana County Community College Center of WCCC
45 Airport Road
Indiana, PA 15701
724-357-1404

Laurel Education Center
Seventeen Lloyd Avenue
Latrobe, PA 15650
724-539-3390

Mon Valley Education Center
1181 Fells Church Road
Belle Vernon, PA 15012
724-379-4119

WCCC Public Safety Training Center
65 Public Safety Drive
Smithton, PA 15479
724-872-2447

www.wccc.edu