STUDENT CATALOG

2006-2007

10 South Second Street
Post Office Box 1706
Reading, PA 19603-1706
610.372.4721 • 800.626.1665

RACC

·READING AREA COMMUNITY COLLEGE·

ACADEMIC CALENDAR

Fall Term 2006

Registration Begins for New/Re-Admitted
        Students . . . . **Mon., May 22 through Fri., Sept. 22**
Labor Day *(College Closed)* . . . . .Mon., Sept. 4
Bookstore charges available Sept. 11 – Oct. 6, 2006
Practical Nursing Graduation . . . . Thurs., Sept. 7
Last Day to Apply for Fall 2006 Term . . . . **Mon., Sept. 11**
Last Day for Placement Testing for the Fall 2006 Term . . . . Fri., Sept. 15
Faculty Return & Staff Development Days . . . . .Mon., Sept. 18
                                 through Fri., Sept. 22
Last Day to Register for Fall 2006 Term . . . . **Fri., Sept. 22**
Last Day to Withdraw from the Fall 2006 Term . . . . .Fri., Sept. 22
      (with a Full Refund of Tuition and Fees)
CLASSES BEGIN . . . . **Mon., Sept. 25**
Last Day to Add/Drop Courses for Fall Term . . . . Mon., Sept. 25
                              through Wed., Sept. 27
Application Deadline for December Graduation . . . . Fri., Oct. 6
Last Day to Withdraw Without a Grade . . . . Mon., Oct. 9
Convocation Day *(No Classes)* . . . . Mon., Oct. 9
Mid-Term Grades Due . . . . Wed., Nov. 1
Registration Begins for Currently Enrolled Students . **Mon., Nov. 6**
Last Day to Withdraw with a "W" . . . . Wed., Nov. 8
Veteran's Day *(College Closed)* . . . . Fri., Nov. 10
Registration Begins
        for New/Re-Admitted Students . . . . **Tues., Nov. 14**
Thanksgiving Holiday Recess *(College Closed)* . . . . Thurs., Nov. 23
                             through Sun., Nov. 26
CLASSES END . . . . **Fri., Dec. 9**
December Graduation – 7:00 p.m. . . . . Mon., Dec. 11
Final Grades Due . . . . Wed., Dec. 13
Fall Grades viewable on WebAdvisor . . . . Thurs., Dec. 14
Practical Nursing Program - Term I Ends . . . . .Fri., Dec. 15
Winter Break I *(College Closed)* . . . . Fri., Dec. 22 through Tues., Dec. 26
Last Day for Placement Testing for the Winter 2007 Term . . .Wed., Dec. 27
Winter Break II *(College Closed)* . . . . Fri., Dec. 29 through Mon., Jan. 1

Winter Term 2007

Bookstore charges available Dec. 18, 2006 - Jan. 13, 2007
Registration Begins for New/Re-Admitted
        Students . . . . **Tues., Nov. 14 through Tues., Jan 2**
Last Day to Apply for Winter 2007 Term . . . . **Thurs., Dec. 21**
Last Day for Placement Testing for the Winter 2007 Term . .Thurs., Dec. 21
Practical Nursing Program - Term II Begins . . . . Tues., Jan. 2
Last Day to Register for Winter 2007 Term . . . . **Tues., Jan. 2**
Last Day to Withdraw from the Winter 2007 Term . . . . .Tues., Jan. 2
      (with a Full Refund of Tuition and Fees)
CLASSES BEGIN . . . . **Wed., Jan. 3**
Last Day to Add/Drop Courses for Winter Term . . . . Fri., Jan. 5
Martin Luther King Jr. Day *(College Closed)* . . . . Mon., Jan. 15
Last Day to Withdraw Without a Grade . . . . Wed., Jan. 17
Mid-Term Grades Due . . . . Thurs., Feb. 8
Faculty/Staff Development Day *(No Classes)* . . . . .Thurs., Feb. 8
Registration Begins
        for Currently Enrolled Students . . . . **Mon., Feb. 12**
      (Be sure to check with your advisor about graduation requirements.)
Last Day to Withdraw with a "W" . . . . Thurs., Feb. 15
President's Day *(College Closed)* . . . . Mon., Feb. 19
Registration Begins
        for New/Re-Admitted Students . . . . **Tues., Feb. 20**
Saturday Class *(Inclement weather make-up day)* . . . . Sat., March 17
CLASSES END . . . . Mon., March 19
Application Deadline for June Graduation . . . . Mon., March 19
Final Grades Due to Records Office . . . . Thurs., March 22
Winter Term Grades viewable on WebAdvisor . . . . Fri., March 23

Spring Term 2007

Bookstore charges available March 23 – April 16, 2007
Registration Begins for New/Re-Admitted
        Students . . . . **Tues., Feb. 20 through Tues., March 27**
Last Day to Apply for Spring 2007 Term . . . . **Fri., March 16**
Last Day for Placement Testing for the Spring 2007 Term . .Wed., March 21
Practical Nursing Program - Term II Ends . . . . Fri., March 23
Saturday Classes Begin . . . . Sat., March 24
Practical Nursing Program - Term III Begins . . . . Mon. March 26
Last Day to Register for Spring 2007 Term . . . . . **Tues., March 27**
Last Day to Withdraw from the Spring 2007 Term . . . . .Tues., March 27
      (with a Full Refund of Tuition and Fees)
CLASSES BEGIN . . . . **Wed., March 28**
Last Day to Add/Drop Courses . . . . Fri., March 30
Spring Recess *(College Closed)* . . . . .Fri., April 6 through Sun., April 8
Last Day to Withdraw Without a Grade . . . . Wed., April 11
Faculty Office Day *(No Classes)* . . . . Thurs., April 12
Mid-Term Grades Due . . . . Mon., May 7
Registration Begins
        for Currently Enrolled Students . . . . **Mon., May 7**
Faculty and Staff Development Day *(No Classes)* . . . . Tues., May 8
Last Day to Withdraw with a "W" . . . . Mon., May 14
Registration Begins
        for New/Re-Admitted Students . . . . Mon., May 14
No Classes . . . . Fri., May 25
Memorial Day Recess *(College Closed)* . . Sat., May 26 through Mon., May 28
CLASSES END . . . . **Sat., June 12**
Graduation Rehearsal - 10 a.m., Sovereign Center . . . . Wed., June 13
Health Professions Reception - 2 p.m., Sovereign Center . . . . Wed, June 13
Graduation Ceremony – 7:00 p.m., Sovereign Center . . . . . Wed., June 13
Faculty and Staff Development Days . . . Wed., June 13 and Thurs., June 14
Final Grades Due . . . . Fri., June 15
Last Day for Placement Testing for the Summer 2007 Term . . . .Fri., June 15
Spring Term Grades viewable on WebAdvisor . . . . Sat. June 16

Summer Term 2007 (8-week Session)

Registration Begins for New/Re-Admitted
        Students . . . . **Mon., May 14 through Tues., June 19**
Last Day to Apply for Summer Sessions . . . . **Wed., June 13**
Last Day for Placement Testing for Summer Sessions . . . . .Fri., June 15
Bookstore charges available June 18 – July 11, 2007
Last Day to Register for the 8-week Session . . . . . **Tues., June 19**
Last Day to Withdraw from the 8-week Session . . . . .Tues., June 19
      (with a Full Refund of Tuition and Fees)
CLASSES BEGIN (8-Week Session) . . . . **Wed., June 20**
Last Day to Add/Drop Courses . . . . Thurs., June 21
Practical Nursing Program - Term III Ends . . . . Sun., June 24
Practical Nursing Program - Term IV Begins . . . . Wed., June 27
Last Day to Withdraw Without a Grade . . . . Fri., June 29
Independence Day *(College Closed)* . . . . Wed., July 4
Mid-Term Grades Due . . . . Tues., July 17
Last Day to Withdraw with a "W" . . . . Tues., July 24
CLASSES END (8-week Session) . . . . **Wed., Aug. 15**
Final Grades Due . . . . Mon., Aug. 20
Summer Grades (8-week session) viewable on WebAdvisor . Tues., Aug. 21
Practical Nursing Program - Term IV Ends . . . . Fri., Aug. 31
Practical Nursing Program Graduation - 6 p.m. . . . . Thurs., Sept. 6

Summer Term 2007 (5-week Session)

Bookstore charges available June 18 – July 11, 2007
Last Day for Placement Testing for the 5-week Session . . . . .Fri., June 15
Last Day to Register for the 5-week Session . . . . . **Tues., June 26**
Last Day to Withdraw from the 5-week Session . . . . .Tues., June 26
      (with a Full Refund of Tuition and Fees)
CLASSES BEGIN (5-Week Session) . . . . **Wed., June 27**
Last Day to Add/Drop Courses . . . . Thurs., June 28
Last Day to Withdraw Without a Grade . . . . Tues., July 3
Independence Day *(College Closed)* . . . . Wed., July 4
Mid-Term Grades Due . . . . Tues., July 11
Last Day to Withdraw with a "W" . . . . Wed., July 18
CLASSES END (5-week Session) . . . . **Wed., Aug. 1**
Final Grades Due . . . . Mon., Aug. 6
Summer Grades (5-week session) viewable on WebAdvisor . . Tues., Aug. 7

2006-2007 Student Catalog

Reading Area Community College

Ten South Second Street
Reading, Pennsylvania 19603-1706
610.372.4721 • 1.800.626.1665
www.racc.edu

MISSION STATEMENT

Reading Area Community College, serving primarily Berks County, is a publicly-supported, comprehensive community college which awards the Associate in Arts, the Associate in Applied Science and the Associate in General Studies degrees. Certificates and diplomas in employment fields are awarded as well. The mission of the College is to provide the following: the first two years of a Bachelor's degree; career education for immediate employment; courses to assist in the transition from high school to college; community education and public service activities; and training for area business and industry. The College strives to do so within an atmosphere that is open, supportive, safe and responsive to the needs of students and of the community.

TELEPHONE DIRECTORY

Admissions Office	610.607.6224
Adult Education, GED, ESL	610607.6227
Cashier's Office/Student Bills	610.607.6235
Center for Academic Success/Services for Students with Disabilities	610.607.6245
College@Home	610.607.6219
Workforce and Economic Development/Community Education	610.607.6231 or 610.607.6232
Day Care Center (Education Laboratory Center)	610.607.6236
Vice President for Enrollment Management/Student Services	610.607.6255
Fax Number/Student Services	610.607.6290
Financial Aid	610.607.6225
General Information	610.372.4721 or 1.800.626.1665
Announcement Mailbox/Inclement Weather	610.607.6293
Records Office	610.607.6243
Schmidt Training and Technology Center	610.898.8289
TDD - Berks Hall	610.236.3940
TDD - Yocum Library	610.236.3941
Website	www.racc.edu

This College catalog is in effect beginning with the Fall Term 2006 and continuing through the Main Summer Session 2007.

Students who were enrolled at RACC prior to the Fall 2005 Term and who have maintained matriculation without interruptions of no more than one year, will not be subject to the new policy and the College will be able to use the cumulative GPA that includes both pre-collegiate and college-level courses for graduation eligibility and approval.   Meanwhile, "all new students" in the Fall 2005 Term and "returning students who have not maintained matriculation at RACC during one year" will be subject to the new policy's effective start date of Fall 2006 Term.

President's Message

Welcome to Reading Area Community College, where tremendous opportunities await you. I am pleased that you are exploring these options and hope that you will fulfill your educational aspirations here.
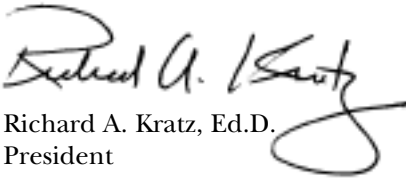
The overriding purpose of Reading Area Community College is to assist students in attaining their educational goals. For more than 34 years, the college has provided the citizens of Berks County with first rate educational programs within a supportive learning and teaching environment. Our graduates continue to tell us how much they appreciate the outstanding faculty, library facilities and support staff in areas such as Financial Aid, Tutoring and more.

We know that our graduates do well after graduation. A recent survey of more than 600 students who transferred to four-year colleges and universities indicated that more than 75 percent earned at least a 3.0 grade point average at the transfer institution. Additionally, follow-up studies with employers indicate that they are satisfied with our graduates and they welcome the opportunity to hire other Reading Area Community College graduates.

Reading Area Community College has established a proud tradition of excellence within the community. We provide hope and opportunity for thousands of Berks County residents. I believe that you, too, will discover the opportunities that await you.

I invite you to join in the tradition of excellence at Reading Area Community College.

Richard A. Kratz, Ed.D.
President

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GENERAL INFORMATION

Reading Area Community College provides information to current and prospective students concerning our academic programs, costs of attendance and refund policy as required by the Student Consumer Information Regulation established under Title I of the Educational Amendments of 1976.

The College has designated two contact persons for Student Consumer Information Services. Requests for Financial Aid information and application materials should be directed to the Director of Admissions. Questions regarding academic programs and other student concerns should be directed to the Vice President for Enrollment Management/ Student Services.

INSTITUTIONAL GOALS

Reading Area Community College is committed to:

1. Offer high quality educational programs, leading to an associate degree, certificate or diploma which prepare students to transfer to baccalaureate degree granting institutions or to enter business and industry.
2. Provide programming and services to respond to the needs of the community by creating lifelong learning opportunities through adult and continuing education, training for business and industry, community services and cultural enrichment.
3. Offer instructional programs containing a strong general education component which promotes a respect for a multi-cultural society and which actively involve students in learning for professional and personal growth.
4. Provide students with effective developmental services that link into college level coursework and remedial programs that allow them to reach their potential.
5. Provide educational support services, such as co-curricular activities, counseling, financial aid and advising services, that will act as a complement to the academic programs, facilitate successful completion of programs, and enable students to assume productive roles in society.
6. Act as a partner in the life of the community through outreach activities that support educational, occupational and service organizations, and community interests and be responsive to a rapidly changing environment.
7. Provide a working environment and incentives to attract, develop, and retain a diverse competent administration, faculty and staff who are committed to fulfilling the institutional mission and goals.
8. Secure and allocate the physical and financial resources needed to support the mission and goals of the College through systematic planning and sound management practices.

ACCREDITATIONS

Reading Area Community College is accredited by the following:

- Department of Education of the Commonwealth of Pennsylvania - Associate in Arts Degree, Associate in Applied Science Degree, Associate in General Studies Degree, Certificate of Specializations and Diploma of Specialization.
- Commission on Higher Education of the Middle States Association of Colleges - Full Accrediation
- Pennsylvania State Board of Nursing - Associate in Applied Science Degree in Nursing and Practical Nursing Certificate
- National League for Nursing - Associate in Applied Science Degree in Nursing and Practical Nursing Certificate
- National Accrediting Agency for Clinical Laboratory Science (NAACLS) - Associate in Applied Science Degree in Medical Laboratory Technician
- Committee on the Accreditation for Respiratory Care (COARC) - Associate in Applied Science Degree in Respiratory Care and Respiratory Therapist Certificate

MEMBERSHIPS

Reading Area Community College is a member of the following organizations:

- The American Association of Community Colleges
- The Association of Community College Trustees
- The Pennsylvania Commission for Community Colleges
- The Pennsylvania Association of Colleges and Universities
- National Association of College and University Business Officers
- The Council of Associate Degree Programs of the National League for Nursing
- The Council of Practical Nursing Programs of the National League for Nursing
- Pennsylvania Colleges of Associate Degree Nursing
- League for Innovation in the Community College

GRANT-FUNDED PROGRAM PARTNERSHIPS

- National Science Foundation - Nanofabrication
- Pennsylvania Department of Community And Economic Development - Nanofabrication
- Pennsylvania Department of Community and Economic Development/Customized Job Training - Workforce and Economic Development Network of Pennsylvania
- Pennsylvania Pathways - Early Childhood Education Providers
- U.S. Department of Education - Preparing Tomorrow's Teachers Today (PT3)

Admissions Information

Reading Area Community College is approved by the Department of Education of the Commonwealth of Pennsylvania as an institution of higher education, and is authorized to award the Associate in Arts Degree, the Associate in Applied Science Degree, the Associate in General Studies Degree and the Certificate of Specialization, as well as appropriate diplomas and certificates.

The College operates on a three-term basis consisting of ten weeks each, including examination periods and vacations. The unit utilized for credit courses is the semester hour.

Reading Area Community College has an "open admissions" policy, which means that any student who has received their high school diploma or G.E.D. certificate will be accepted. Also, those students with other qualifications that indicate the potential for success will be considered for admission on an individual basis. College entrance examinations such as the SAT or ACT are not required, and while high school records or college transcripts must be submitted to complete the application file, they are not used as a basis for admission to most programs of study.

Prospective students (and their families) who are having difficulty completing the application process may obtain assistance from the Admissions Office.

The open admissions policy does not guarantee acceptance into a specific program of study. Some programs have requirements that must be met in order for students to secure licensure or certification upon completion of the program. These programs must comply with regulations established by various governing bodies. Other factors include limitations on enrollment based upon availability of college or community facilities used for practice experience.

The following Associate in Applied Science and Certificate of Specialization programs have selective admissions procedures:
Culinary Arts - A.A.S.
Medical Laboratory Technician (M.L.T.) - A.A.S.
Nursing (R.N.) - A.A.S.
Occupational Therapy Assistant at Lehigh Carbon
    Community College
Physical Therapy Assistant at Lehigh Carbon
    Community College
Practical Nursing (L.P.N.) - Certificate
Professional Pilot Program (A.A.S.)
Respiratory Care (R.T.T.) - A.A.S.
Respiratory Therapist (R.T.)- Certificate

ACCESSIBILITY & SERVICES FOR STUDENTS WITH DISABILITIES

Reading Area Community College strives to provide an environment that allows all individuals to develop to their fullest potential. In keeping with federal legislation and regulations, reasonable accommodations and individualized attention are provided for students with disabilities in order to ensure access to the campus and all of its academic programs and services. For information, contact the Center for Academic Success.

PLACEMENT TEST

All students are required to take placement tests before registering for credit courses at Reading Area Community College. Prior to taking placement test, students with documented disabilities should notify the Center for Academic Success for appropriate accomodations.
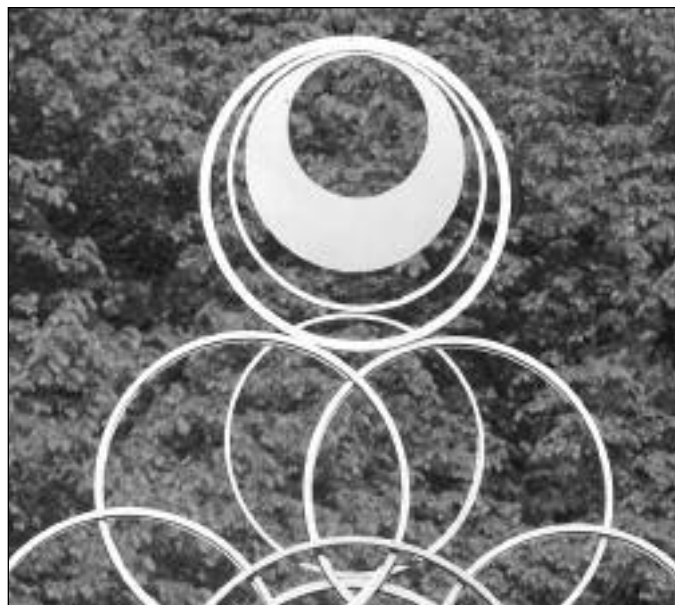
Based on the scores they receive, students will be advised concerning the appropriate courses to take as they begin their college careers. In some cases, students may move directly into freshman level English or mathematics courses, in others, they will need to take developmental courses that will help to ensure their future success.

Placement tests can be waived only for students who have completed a Freshman-level English Composition and/or a Freshman-level Mathematics (or higher) course from an accredited institution with a grade of "C" or better. Students must provide the Advising Center with evidence of completion of such courses. This can be in the form of either transcripts or formal grade reports.

Students who have attended Reading Area Community College and withdrew for one or more years, must re-apply for admission. Students who have not completed relevant coursework within two years of taking the placements tessts will need to retake the appropriate test(s).

NOTIFICATION OF ACCEPTANCE

Applicants will be notified of their acceptance as soon as possible after all necessary items have been received and processed by the Admissions Office. Students who submit applications or records under false pretenses are subject to dismissal without credit.

CATEGORIES OF ADMISSION

There are two general categories under which applicants may be admitted to Reading Area Community College. They may enroll as full-time or part-time students in either category.

1. **DEGREE CANDIDATES** are applicants who wish to earn an associate degree or certificate. The College offers the Associate in Arts, Associate in Applied Science, Associate in General Studies, and the Certificate of Specialization.

2. **NONDEGREE CANDIDATES*** are those who wish to enter the College for purposes other than earning an associate degree or certificate. The category includes the following types of students:

a. **TRANSIENT:** Students attending another college or university who elect to take certain courses at Reading Area Community College and then return to their home institution.

b. **HEADSTART TO COLLEGE:** Students who wish to begin college-level academics before their actual graduation from high school. **Candidates must be in good academic standing at their high school. Ideally, the course(s) selected should be for the purpose of earning College credits. However, students can be considered for admission to the College for other reasons or on a case-by-case basis.** The Director of Admissions reserves the right to decline admission to any Headstart to College applicant after a review of their transcripts and required placement tests scores. Should the applicant score at a developmental level in reading, writing and mathematics, the recommendation will be for completion of high school before enrollment at RACC.

(Please note the special application procedures which follow for other considerations.)

c. **All Others:** Individuals may wish to take a specific course or courses for job improvement or enrichment but not necessarily work toward obtaining a degree. Coursework taken may be later applied toward a degree from the College or may be presented for transfer credit at another college or university.

*Nondegree Candidates do not qualify for Financial Aid. Also, official evaluations of transfer work will not be performed for students in this category.

GENERAL ADMISSIONS PROCEDURES
DEGREE CANDIDATE
1. Submit the application for admission.
2. Request that the high school forward an official copy of their complete high school transcript directly to the Admissions Office.
3. Applicants who hold a high school equivalency diploma (G.E.D.) should request an official copy of their G.E.D. scores to be sent to the Admissions Office. (Requests can be made to the department of education from the state in which you earned the G.E.D.)
   NOTE: *Applicants who did not finish high school and do not hold a G.E.D. will be evaluated on any or all of the following: readiness to undertake college work on the basis of placement tests results, previous scholastic records, interviews, or employment experience, and will be admitted to the College only after such evaluation. Contact the Director of Admissions for details.*
4. If applicable, request that official transcripts be sent to the Admissions Office from all post-secondary institutions and/or colleges/universities attended.
5. Take placement tests.

NONDEGREE CANDIDATES
Transient:
1. Submit the application for admission.
2. We recommend that you have the college or university at which you are pursuing your degree complete and forward to the Admissions Office a Transient Student Application form, granting permission for a term of study and approving transfer credit for courses completed. (If the course approval for Transient Student is provided, the College may waive the placement tests.)
3. Take placement tests if appropriate.

Headstart to College:
1. Submit the application for admission.
2. Request that your parent or guardian and high school counselor forward written approval for the enrollment on a Headstart to College Application form to the Admissions Office. High school transcripts should accompany this

completed form.
3. Take placement tests.
4. Schedule a follow-up appointment with the Director of Admissions.

All Others:
1. Submit the application for admission.
2. Take placement tests.
NOTE: Any applicants who do not enroll in classes within five years of the original term for which they applied are required to re-submit all application materials and all transcripts. No records will be kept longer than five years for applicants who do not enroll in classes.

SELECTIVE ADMISSIONS PROCEDURES
All applicants must fulfill the requirements for admission as degree candidates; that is, apply, have official copies of all academic transcripts forwarded, and take the placement tests. Additional procedures must also be followed for the College's selective majors.

Culinary Arts Programs
All Culinary Arts students must pass a criminal record check and a child abuse history clearance before beginning the program. Prior to registering for CUL 201, CUL 215, CUL 235, CUL 240 or CUL 255, applicants must:
1. Confer with the Culinary Arts Job Site Supervisor to set up job sites where all course competencies are to be mastered.
2. Have a medical examination certifying the student to be able to perform duties required on the job site.
3. Submit evidence of current health insurance at the beginning of each culinary arts (CUL) course.

Medical Laboratory Technician Program
The student from Lehigh Carbon Community College who has successfully completed specific general education requirements will be granted sophomore-level standing and admission to the Medical Laboratory Technician Program per stated admission requirements at Reading Area Community College.

Applicants must:
1. Be a graduate of an approved secondary school or hold a high school equivalency diploma.
2. Have completed, with grades of "C" or better, two years of biological science (including advanced biology), laboratory chemistry, and algebra. If the previous academic experience is lacking or if placement scores indicate the need for preparatory work, the following Reading Area Community College courses may be used to provide the needed academic background: BIO 150, CHE 120, MAT 030, MAT 110.
3. Meet with the M.L.T. program director for an interview to discuss the academic background, the M.L.T. program, and the selective M.L.T. admissions policies before declaring a major of Medical Laboratory Technology. The interview is mandatory.
   NOTE: For progression into the clinical experience courses in the second year of the program, students must:
   a. Obtain a minimum G.P.A. of 2.5 in the following courses: BIO 250, BIO 255, BIO 280, CHE 110, CHE 150, CHE 210, MAT 110, MLT 120.
   Effective Fall 1995:
   b. Obtain a "C" grade or better in all first year courses: COM 121, MAT 110, CHE 110, ORI 100, CHE 150, BIO 255, MLT 120, COM 131 or 141, CHE 210, BIO 280, and Humanities elective. These courses must be completed by the end of Spring Term of the year preceding clinical experience.
   c. Have a medical examination certifying the student to be physically fit.
   d. Submit two letters of reference; one of which must be from a faculty member, either full-time or adjunct.

e. Have two separate interviews: one with clinical personnel and one with a college faculty member.
f. Submit a short letter on why they have chosen Medical Laboratory Technician work as a career.

The preceding policies will be revised in keeping with the most recent accrediting agency policies.

A selection committee will review all records, determine the eligibility of students, and then select those students who will progress into the clinical experience. The date of enrollment in the Medical Laboratory Technician curriculum will remain as the deciding factor between two equally qualified students. Rotation sites for clinical experience will be assigned by the MLT Selection Committee.

Nursing Program
Applicants must:
1. Have completed work equal to a standard high school course with a minimum of 16 units, including 4 units of English, 3 units of Social Studies, 2 units of Mathematics (1 of which is algebra), and 2 units of Science with a related laboratory or its equivalent. Applicants whose high school academics were completed outside of the United States will have to apply for a Certificate of Preliminary Education through the Pennsylvania Department of Education.
2. Have completed, with grades of "C" or higher, one course in algebra, biology, laboratory chemistry, and one advanced laboratory science course such as advanced biology, advanced chemistry, anatomy & physiology, or physics. The course must be one carnegie unit in length, or its equivalent.
3. If enrolled in grade 12, applicants must submit a list of their courses for the senior year. Upon graduation a final transcript must be submitted.
4. Take college placement tests. If the student does not place at the Algebra II level, then he or she must take the recommended math course through and including Algebra I prior to admission to the Nursing Program. clinical course. Example: If the math placement score indicates placement into Basics then the student must take Basics of College Math or Math Fundamentals, and Algebra I prior to admission. Students must place at the English Composition level on the reading/writing portion of the placement tests or take the appropriate courses.
5. Students enrolled at Reading Area Community College must attain and maintain a cumulative G.P.A. of 2.5 or higher to be eligible for admission to the Nursing Program.
6. Show evidence of good mental, physical and dental health.
7. Submit evidence of required immunizations or antibody titres.
8. Submit evidence of current CPR Certification for the Healthcare professional at the beginning of each nursing (NUR) course.
9. Submit evidence of current health insurance at beginning of each clinical nursing course.
10. Sign an affidavit stating that they have not been convicted of a felonious act. **The Professional Nursing Law** (Act 69, PL 409, No. 10 and PL 233 No. 64) provides that as of January 1, 1986:
    The Board of Nursing shall not issue a license or certificate to an applicant who has been convicted* of a felonious act prohibited by act of April 14, 1972 (P.L. 233, No. 64), known as "The Controlled Substance, Drug, Device and Cosmetic Act," or 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 ten (10) years have elapsed from the date of conviction;
    (b) The applicant satisfactorily demonstrates to the Board of Nursing that they have made significant progress in personal rehabilitation since the conviction such that licensure of the applicant should not be expected to create a substantial risk of harm to the health and safety of patients or the public or a

substantial risk of further criminal violations; and
(c) The applicant otherwise satisfies the qualifications contained in or authorized by this act.
    *The term "convicted" shall include a judgment, an admission of guilt or a plea of nolo contendere.
11. Submit Criminal Records clearance and Child Abuse History Clearance. In addition to the State Board of Nursing affidavit, students must submit evidence of a Pennsylvania State Police Criminal Check and a Pennsylvania Child Abuse History Check. Applicants from out-of-state are required to submit a FBI Criminal Background Check. An applicant convicted of any of the "prohibitive offenses" contained in the Older Adult Protective Services Act or an application convicted of any type child abuse will be disqualified from admission to the Nursing programs or continuing in the program regardless of the amount of time that has elapsed from the date of conviction. <u>A second affidavit concerning this information must be signed upon application.</u>
12. Attend the group interview at the scheduled date and time.
Note:
I. Effective July 1, 2006, Anatomy & Physiology I and Anatomy & Physiology II must be completed within five years of application to Nursing Program.
II. For progression and graduation, student must earn a "C" or higher in each of the courses in the Nursing curriculum.
III. Advanced Standing Process - Make an appointment with the Assistant Director of the Nursing Program to review the following:
    A. Licensed Practical Nurses
        1. Meet requirements for admission to the Nursing Program.
        2. Students wishing to be advanced placed into nursing register with the College Assessment Center and pay the requisite fees. A receipt for payment must be presented in order to test out of Nursing I, II and/or III.
        3. Nursing I - Take Fundamentals of Nursing (Excelsior College) test; and the Nursing I skills test.
        4. Nursing II - Take Nursing II Comprehensive Exam (including Peds principles) and Nursing II skills test.
        5. Nursing III - Take Nursing III Comprehensive Exam (including normal OB) and Nursing III skills test.
        6. Students enter the program at the appropriate level based upon their test results.
        7. Applicants who test out of NUR 120, NUR 130 or NUR 140 are required to enroll in and successfully complete NUR 111 Transition to Nursing, prior to entering any clinical course.
        8. This process is based on the Pennsylvania Articulation Model. Advanced placement is for an LPN who is a graduate of any NLN accredited practical nursing program.

Occupational Therapy Assistant
and Physical Therapist Assistant:
The student from Reading Area Community College who has successfully completed specific general education requirements will be granted admission to the Physical Therapist Assistant Program or Occupational Therapy Assistant Program per stated admission requirements at Lehigh Carbon Community College. The student must see advisor or transfer counselor.

Practical Nursing Program
Applicants must:
1. Be a graduate of an approved secondary school or hold a high school equivalency diploma. Applicants whose high school academics were completed outside of the United States will have to apply for a Certificate of Preliminary Education through the Pennsylvania Department of

Education.

2. Take the College's placement tests and meet with an advisor from the Center for Academic Success.
3. Complete the required foundation coursework and maintain a GPA of 2.5 or better. The prerequisite coursework is as follows:

MAT	020	Basics of College Mathematics
COM	021	Basics of College Reading
ORI	100	College Success Strategies
COM	031	Basics of College Study Skills
COM	061	Advanced Reading
COM	051	Basics of College Writing
MAT	030	Algebra I
BIO	120	Biological Concepts
CHE	120	Principles of Chemistry

NOTE:

a. All PN students must take the college's placement tests and enroll in all relevant courses designed to meet minimum program prerequisites.
b. All PN students may have COM 051 and COM 061 waived if an appropriate score is obtained on the college's placement tests at the regular-entry English Composition level (i.e., COM 121).
c. All PN students must take the mathematics component of the college's placement tests and he/she must score at the Algebra II math course level.
d. Students possessing a high-school level biology and/or chemistry course (with lab) with a "C" or better will satisfy this/these prerequisites. Such high school-level prerequisite courses(s) must be completed within the past five years of high school graduation and subsequent program application to RACC.

4. Show evidence of good mental, physical and dental health.
5. Submit evidence of required immunizations or antibody titres.
6. Submit evidence of current C.P.R. certification for the Healthcare professional at the beginning of the program year.
7. Submit evidence of current health insurance prior to enrollment in PNP coursework.
8. Sign an affidavit stating that they have not been convicted of a felonious act. The Practical Nursing Law (P.L. 1211, No. 376, March 2, 1956, as amended through 1985) provides that as of January 1, 1986:

The Board of Nursing shall not issue a license or certificate to an applicant who has been 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 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 ten (10) years have elapsed from the date of conviction;
(b) The applicant satisfactorily demonstrates to the Board of Nursing that they have made significant progress in personal rehabilitation since the conviction such that licensure of the applicant should not be expected to create a substantial risk of harm to the health and safety of patients or the public or a substantial risk of further criminal violations; and
(c) The applicant otherwise satisfies the qualifications contained in or authorized by this act.

*The term "convicted" shall include a judgment, an admission of guilt or a plea of nolo contendere.

9. In addition to the State Board of Nursing affidavit, you must submit evidence of a PA Child Abuse History Clearance and a PA State Police Criminal Record Check. Applicants from out-of-state are required to submit a FBI criminal background check. An applicant convicted of any of the "prohibitive offenses" contained in the Older Adults Protective Services Act (Act 169 as amended by Act 13) or any type of child abuse will disqualify you from admission or continuing in the program regardless of time elapsed from the date of conviction. A second affidavit concerning this information must be signed.
11. All qualified students will be invited to attend a mandatory Information Sesssion to receive forms for the required documents previously stated. Once the completed required documents have been submitted and approved, the qualified student will be fully accepted into the PNP. All questions can be directed to the Division of Health Professions (610)607-6226 or (610)372-4721, ext. 5441 or 3944.

Please note, a student may be readmitted only 1 time to this program.

1. For progression and graduation, student must earn a "C" or higher in each course of the Practical Nurse Program.
2. Students must successfully complete a math test for progression into Winter Term. Math tutoring is made available during class time.
3. Advanced Placement Process - please refer to Advanced Placement Policy for Practical Nursing Program, Penn Hall Room 430, 610-372-4721, ext. 5440 or 5441.
4. This program is one year in length after all prerequisite courses have been completed.

Professional Pilot Program
An FAA medical certificate is required for enrollment.

Respiratory Care Program
Applicants must:

1. Meet with the program faculty.
2. Attain a cumulative G.P.A. of 2.5 or higher to be eligible for enrollment in Respiratory Care I.
3. Maintain a G.P.A. of 2.0 or higher for progression and graduation in each of the courses in the Respiratory Care curriculum.
4. Have a medical examination certifying the student is physically fit as per the Health Professions Division format.
5. Be currently certified for cardiopulmonary resuscitation by either the American Heart Association for health care providers course, or American Red Cross Professional Rescuer course.
6. Sign an affidavit stating that they have not been convicted of a felonious act.
7. Submit evidence of required immunizations and/or of antibody titers as required by the approved health form.
8. Submit evidence of current health insurance.

Re-Entry Requirements:

1. Only one re-entry to the program can be provided after receiving a D or F in a Respiratory Care Course.
2. Re-entry into the program is limited two years following unsuccessful competition of a course or withdrawal from a course.
3. The individual must pass a SKILLS examination (written and or performance) for re-entry.

Special Note:
The student from Lehigh Carbon Community College who has successfully completed specific general education requirements will be granted sophomore-level standing and admission to the Respiratory Care Program per stated admission requirements at Reading Area Community College.

INTERNATIONAL STUDENT ADMISSION

Reading Area Community College is authorized under Federal law to enroll non-immigrant foreign students under the F-1 and M-1 status. The following preliminary procedures must be completed before international students can be considered for admission to Reading Area Community College:

1. International student applicants must submit a brief statement of their academic and work background and the educational objectives they hope to accomplish at Reading Area Community College.
2. International student applicants must take the *Test of English as a Foreign Language (TOEFL)* and submit the results within sixty (60) days prior to the beginning date of the term for which the applicants are seeking admission. The applicants must score at the 450 level or above to be considered for admission. Registration forms and the *TOEFL Bulletin of Information for Candidates* may be obtained from American Consulates, United States Information Agencies, and many educational centers throughout the world. Registration forms may also be obtained by writing, well in advance of the desired test date. (College institution code: 2743)
3. Applicants must send certified copies of all official transcripts (academic records), with English translations, of all training received at the equivalent of high school level or above. All transcripts become the property of the College and will not be returned.
4. Applicants must submit a certified statement of financial support and specify the source/s of such financial support.
5. Applicants must submit verification of housing accommodations by lease, rent receipt, or a statement of accommodation provisions by a sponsor or sponsoring agency.
6. International student applicant must complete an application for admission to Reading Area Community College.
7. Applicants must schedule an in-person interview with the Foreign Student Advisor in the Admissions Office prior to beginning classes.
8. Take the College placement tests after meeting with the Foreign Student Advisor.

Only after all of these steps have been completed will an admissions decision be rendered. Some time may elapse before a decision is reached and the applicant is notified. In any event,

the U.S. Immigration and Naturalization Service Form 1-20 (Certificate of Eligibility) will not be issued until the applicant has been accepted for admission to the College.

Individual visa status changes will not be initiated by the College, but must be handled through the Office of Immigration.

READMISSION PROCEDURES

A student who has previously studied at Reading Area Community College and desires to resume full-time or part-time study after an absence of one year or more must complete an application for readmission. The following procedures and regulations govern readmission to the College:

1. Applicants for readmission must complete the application for admission; check the box which indicates previous attendance at the College.
2. Applicants for readmission must fulfill all other admission requirements in accordance with the procedures outlined.
   NOTE: In most cases, high school transcripts do not need to be resubmitted by candidates who previously completed courses at RACC. However, transcripts from other schools attended in the interim will be required of those seeking readmission to degree programs.
3. Students seeking readmission to the nursing programs are processed through a special selection committee of the individual nursing program. The committee's decision about readmission is based upon prior performance in the program, length of time the student had not been actively enrolled in a nursing course, programmatic changes since prior enrollment, and space in the currently enrolled class at the point of readmission. For the Associate Degree Nursing program, only one readmission is permitted. For the PNP only 1 readmission is permitted. For specific requirements, see individual programs.
4. Students seeking readmission are subject to the catalog under which they readmit.

Tuition

One of the primary advantages of attending a publicly-supported community college is that tuition is lower than at most other public and private institutions of higher education.

TUITION
(Subject to change as deemed appropriate by the College)

Student's Residence	Full-Time Students	Part-Time Students
Residents of Berks County*	$ 69 per credit	$ 69 per credit
Other Pennsylvania Residents	$138 per credit	$138 per credit
Non-Pennsylvania Residents	$207 per credit	$207 per credit
International Students**	$207 per credit	$207 per credit

*Students living in Berks County must verify their eligibility status to take advantage of the Berks County tuition rate.
**International students must pay balance by the beginning of each term.

TUITION

Tuition for all students is charged on a per credit basis. Full-time students are those registered for eight (8) or more credit hours of coursework per term. Part-time students are those registered for less than eight (8) credit hours of coursework per term.

The college shall apply service charges standard for the industry for returned checks.

Be sure to stop in the Cashier's Office to be sure your balance is clear. You can always request a copy of your account history.

Should an account need to be referred to a collection agency, the student will be responsible for all collection charges and legal fees standard for the industry. The current collection fee percentage can be obtained through the Cashier's Office.

PAYMENT OF TUITION

The college accepts cash, check, Mastercard, VISA, debit card or money order. Payment plans are available through the Cashier's Office. The first 50% of the payment is due approximately 35 days before the beginning of each term. The last 50% will be due 35 days after the beginning of each term. (Extended payment plans for current term - beyond that described above - are an option for those students unable to meet published payment deadlines.)

TUITION REFUNDS

Students dropping a course before the first day that the class begins for which s/he is enrolled will receive a 100% refund of tuition <u>and</u> fees. The student must submit the Schedule Change Form to the Records Office, Berks Hall, Room 107.

Once the day of class begins, students dropping a course before 10% of the time has elapsed between the starting and ending date of the course will receive a 95% refund of tuition and fees. Students dropping a course before 20% of the time has elapsed between the starting and ending date of the course will receive a 50% refund of tuition and fees. There will be no refund for any course dropped after the 20% date has lapsed.

UNEMPLOYED POLICY

Students must be either (a) residents of Berks County, or (b) affected by a Berks County business or industry plant closing or layoff. Students may enroll for a maximum of one term on a tuition-fee basis. Students enrolling in a non-credit course or program can receive a tuition waiver equivalent to the tuition charges for a full-time credit student. College staff will assist students in an attempt to secure the necessary financial aid to continue their education.

Costs such as fees, textbooks and supplies must be paid by the students. Students must have been laid off, permanently or indefinitely, within 12 months prior to the time they make application for the program.

SENIOR CITIZENS TUITION

Senior citizens from Berks County are eligible to take one course per term in the credit division tuition-free. Courses may be audited or taken for credit.

Eligibility Requirements:

1. The student must be 65 years of age or older and present proof of age, such as Medicare Card, Driver's License, Birth Certificate, etc.
2. Clinical sections in the Health Professions Programs are excluded. The requests for tuition-free courses by senior citizens will be honored on a first-come, first-serve basis and will be governed by seats available in any given class.
3. Enrollment of senior citizens must not cause the class size to exceed College enrollment limitations.
4. Individual costs such as textbooks and supplies must be paid by the senior citizens.

If enrollment totals cause senior citizens to be ineligible, these students shall be notified before the first day of classes. An attempt to find another alternative shall be made. Non-credit courses cannot be included in this offer.

SPONSORSHIP STUDENTS

It is the responsibility of the student to present proof of third party sponsorship to the Cashier's Office prior to registration. RACC will then bill the sponsor.

Fees

ALL FEES ARE NON-REFUNDABLE AND SUBJECT TO CHANGE AT ANY TIME.

Capital Outlay Fee: Payment of this fee is required of full-time and part-time students who are non-residents of Berks County area. The capital outlay fee is charged to offset the cost of College facilities and equipment. The fee is $2 per credit hour.

College at Home (Telecourse) Fee: A copyright fee of $30 will be charged for each College @ Home course.

Credit By Examination: The cost of credit by institutional examinations is one-third the per credit hour rate for either residents or non-residents.

Graduation Application Fee: A one time fee of $25 will be charged to cover the cost of caps, gowns and diplomas.

Institutional/Activity Fee: This fee supports the general operating budget related to facilities & functions, co-curricular activities, various special programs, and some student-related operating costs. The fee is $18 per credit hour.

International Student Fee: A $35 per credit International Fee will be charged to students who are citizens of a country other than the United States and who enter on non-immigrant visas.

Malpractice Insurance Fee: This fee for Health Professions students provides coverage for one year from the time of payment. The premium will be assessed at the time students complete their registration process in the Business Office. The amount of the fee will be set by the insurance carrier each year. Coverage ceases if the participant withdraws.

Nursing Campus and Clinical Laboratory Fee: A per course fee will be charged in accordance with the SCHEDULE OF FEES.

Official Transcript: A fee of $3 will be charged for each transcript.

Placement Testing Retest Fee: Students who are granted a retest opportunity are charged a $15 fee.

Tech Prep Articulation Fee: A fee of $22 per course will be charged for the awarding of credit for courses taken during high school that are identified in the Tech Prep Articulation Agreement.

Technology Fee: The $19 per credit technology fee is used to maintain existing services and to implement new technology initiatives.

Proctoring Exam Fee for Nonstudents $25.00/exam
Individuals attending another institution enrolled in distance learning courses who need exams proctored may do so by contacting the Coordinator of Recruitment and Assessment.

ADDITIONAL COSTS

Students enrolled in all Health Professions Programs will incur additional costs for program requirements such as an annual physical examination, immunizations (Hepatitis B), textbooks, special equipment, malpractice insurance, health insurance, uniforms, and transportation to clinical facilities.

Any students enrolled in programs in which some class instruction and educational experiences are provided at off-campus facilities may incur additional expenses for transportation and parking.

TYPICAL PERSONAL EXPENSES
(Per Academic Year)

Students should expect to incur personal expenses in addition to tuition and fee expenses. The expenses will include books and supplies, transportation, and meals on campus. Actual costs vary greatly from student to student. The Financial Aid Application provides examples of student expenses for different types of students (single, self-supporting, married, etc.).

COST ADJUSTMENTS DUE TO COURSE LOAD REDUCTION OR WITHDRAWAL FROM COLLEGE

Students who drop a course prior to the end of the term or officially withdraw from the College must complete the Change of Schedule Form which may be obtained from the Advising Center. **Failure to officially drop a course will result in a forfeiture of any refund and will result in a failing grade ("F") for all courses in which the student was enrolled.**

SCHEDULE OF FEES 2005-2007
(Fees shown are those in effect at the time this Catalog was printed.)

		College at Home Copyright Fee	$30.00
NUR	120	Nursing I	270.00
		Malpractice Insurance Fee	23.00
NUR	130	Nursing II	270.00
NUR	140	Nursing III	270.00
NUR	220	Nursing IV	270.00
		Malpractice Insurance Fee	23.00
NUR	230	Nursing V	270.00
NUR	240	Nursing VI	270.00
RES	220	Malpractice Insurance Fee	23.00
RES	311	Critical Care	
		Malpractice Insurance Fee	23.00
RES	321	Advanced Diagnostics	
		Malpractice Insurance Fee	23.00
RES	331	Neonatal	
		Malpractice Insurance Fee	23.00
RES	341	Rehabilitation & Home Respiratory Care	
		Malpractice Insurance Fee	23.00

Practical Nursing Program - Effective with fall term 2004, all PN students starting their clinical experience (PNP 110, 115, 120, 122, 125, 130, 135, etc.) will be assessed a $270.00 fee each term of their clinical experience which equals a total of four terms.

Respiratory Care Program - Effective with summer term 2005, all Respiratory Care students will be assessed a $270.00 per term fee for their clinical experience (RES200, 201, 212, etc.),which equals a total of four terms.

Medical Laboratory Technician Program - Effective with fall term 2004, all new students enrolling in MLT 120 Basic Immunology and MLT 210 Clinical Laboratory Techniques as well as their clinical experience (MLT 220, 221, 222, etc.), which equals two terms, will be assessed the $270.00 clinical lab fee.

SPECIAL FEES
External Evaluation of Credits
for Nonstudents $22.00/course
Individuals needing courses such as military credits, etc., evaluated for posting on an official transcript from an accredited postsecondary institution may request an evaluation by contacting the Admissions Office.

College Honors Program

HONORS PROGRAM GOALS

The primary goal of the Honors Program is to enrich the educational experience of academically talented, intellectually curious students.

The Honors Program achieves this goal through specialized courses and other learning opportunities which often include exploratory learning, interdisciplinary themes, collaborative activities, primary research, and hands-on projects.

The Honors Program also seeks to enhance opportunities for students to transfer to four-year colleges and universities and to provide special recognition for students with high academic achievement.

ELIGIBILITY

To be eligible for the Honors Program, a student must submit a recommendation from a teacher and meet one of the following criteria:
- a 3.25 GPA or higher, excluding developmental courses, with a minimum of 8 credits in college-level courses
- appropriate score on RACC placement tests.
- graduation in the top 10% of high school class
- successful completion (B average or higher) of accelerated high school courses (e.g., AP, honors, dual enrollment)
- a combined SAT score of 1100 or higher
- recommendation of instructor (unless another criterion is fulfilled, admission would be for a single course.
- special talent or ability in the area of a particular course (unless another criterion is fulfilled, admissions would be for a single course)

PROGRAM OPTIONS
- **Taking Individual Honors Courses**
  Students may enroll in one or more individual honors courses according to their personal, professional, or academic interests.

- **Working Toward an Honors Certificate/Diploma**
  Students who complete 15 honors credits with an overall GPA of 3.25 or higher and a 3.0 or higher in all honors courses will earn an Honors Certificate. When they graduate from RACC, these students will receive an Honors Diploma.

EARNING HONORS CREDIT
Students have three ways to earn honors credit:

❶ **Honors Courses**
Students can enroll in honors courses. Some are honors versions of general education courses. Others are seminars, often interdisciplinary, on various topics.

Currently available courses include the following:
ANT 200   Intercultural Communication
ANT 250   Magic, Myth & Ritual: The Anthropology
          of Religion
ANT 255   Interpreting Lives: Rites of Passage, Personal
          History, & the Life Cycle
ANT 285   Ethnographic Research
COM 122   English Composition
COM 132   Composition and Literature: Texts & Contexts
COM 152   Fundamentals of Speech
ENV 131   The Environment
HUM 276   Ethics
HUM 280   Introduction to Navajo Studies
HUM 281   Leadership Development Studies

For additional information, see individual course descriptions.

❷ **Honors Contracts**
Students can enroll in a standard RACC course and arrange with the instructor to complete additional or different work. Honors contracts are subject to the willingness of individual instructors to participate and to the approval of the appropriate division chairperson and the Honors Committee.

A maximum of 8 contract hours may be applied toward an Honors Certificate or Honors Diploma.

❸ **Independent Study**
A student can earn 1-4 honors credits for a project proposed and carried out under the direction of a faculty mentor. A project may involve in-depth research, creative works, internships, and/or three-dimensional projects. The time invested in an independent study project will be similar to the time required for a course of comparable credit.

Independent Study is subject to the willingness of individual instructors to participate and to the approval of the appropriate division chairperson, the Honors Committee, and Vice President of Academic Affairs/ Provost.

A maximum of 6 independent study credits may be applied toward an Honors Certificate or Diploma.

**For additional information, contact the
Honors Program Coordinator at 610-607-6216.**

College Assessment Services

The College Assessment Center has been established to help students who bring with them to Reading Area Community College a wide variety of experiences and college-level learning. Those students who wish to transfer credit from a non-classroom manner will find it beneficial to contact the Coordinator of Assessment. The Coordinator will serve as an information source for the following areas:

1. Tech Prep
2. Credit by Examination
3. Life Experience/Portfolio Assessment
4. Transfer Credit
5. CLEP Testing
6. Advanced Placement

1. TECH PREP

Reading Area Community College is a two-year post-secondary educational institution participating in Pennsylvania's Tech Prep initiative. Tech Prep is a process to design, develop and implement specific technical preparation programs that are planned and sequential. The planned programs provide students with a nonduplicative sequence of progressive studies that combine two to four years of secondary education with two years of post-secondary education.

These articulated programs combine a common core of mathematics, science and communications with a specific field of technical preparation. Students who complete articulated programs earn a certificate or an associate degree, are technically and academically prepared to join the workforce, and for certain programs continue formal studies toward a bachelor degree.

Currently, Reading Area Community College offers the following Tech Prep articulated programs: Information Technology, Early Childhood Education, Electronics Engineering Technology, Accounting, Business Management, Office Technology, Travel and Tourism, Medical Laboratory Technician, Nursing (R.N.), Practical Nursing, Respiratory Care, HVAC/R, Industrial Maintenance Technician, Machine Tool Technology and Culinary Arts.

For specific information regarding Tech Prep articulated programs, contact the Admissions Office at Reading Area Community College and your high school guidance counselor. Tech Prep credit is considered resident credit.

2. CREDIT BY EXAMINATION

Institutional examinations for credit were designed for students who have previous experience that applies to a specific course. Students may be eligible to take a test to earn college credit for specific courses. Credit by Examination is considered resident credit. This option is available to students for the following courses:

ACC	105	Financial Accounting
ACC	110	Managerial Accounting
BUS	100	Introduction to Business
BUS	110	Business Mathematics
COM	121	English Composition
ECE	115	Creative Art for the Developing Child

ECE	120	Observation & Interpretation of Child Behavior
ECE	125	Introduction to Early Childhood Education
ECE	220	Curriculum Development & Instructional Materials
IFT	100	Introduction to Information Technology
IFT	110	Microcomputer Applications
MAT	110	Algebra II
MAT	150	Foundations of Math
MTT	120	Machine Tool Mathematics I
MTT	125	Machine Tool Mathematics II
MTT	130	Blueprint Reading I
MTT	135	Blueprint Reading II
MTT	140	Blueprint Reading III
MTT	150	Machine Tool I
MTT	155	Machine Tool II
MTT	160	Machine Tool III
MTT	210	Machine Tool IV
MTT	220	Machine Tool V
MTT	260	Computerized Milling Center
MTT	270	Computerized Turning Center
MTT	280	Computer Aided Manufacturing
NET	100	Fundamentals of Networking
NUR	120	Nursing I
NUR	130	Nursing II
NUR	140	Nursing III
OFT	110	Keyboarding I
OFT	111	Keyboarding II
OFT	100	Personal Keyboarding
PNP	110-100	
PNP	115-110	
PNP	120-125	
PNP	122-126	Fall Term
PNP	125-130	
PNP	130-140	
PNP	135-150	
PNP	140-200	Winter Term
PNP	145-210	
PNP	150-300	
PNP	155-310	
PNP	160-320	Spring Term
PNP	165-330	
PRG	100	Introduction to Computer Programming
PRG	120	COBOL
PRG	130	RPG III
PRG	140	Visual Basic

3. PORTFOLIO DEVELOPMENT FOR LIFE EXPERIENCE ASSESSMENT

Any individual may request an assessment of college level learning gained from work experiences, travel, seminars, workshops, self-study, etc. through the development of a portfolio. Prior to compiling a portfolio, students should consult with the Coordinator of the College Assessment Center and enroll for "The Portfolio Preparation" seminar. Nursing courses may not be earned in this manner.

Assessment of Portfolios will be processed only for those students who have made proper application and been admitted to Reading Area Community College as degree candidates. After students determine the number of credits for which they desire

assessment, they must pay the fee for Assessment of Experiential Learning. Life Experience Assessment via Portfolio Development is considered resident credit. The fee for this type of assessment is one credit hour per 3 credit course.

Students requesting assessment of only experiential learning experience for academic credit are not subject to payment of the Activity Fee or the Capital Outlay Fee.

4. TRANSFER CREDIT AND EVALUATIONS

Students transferring from another college or university should follow the appropriate, previously described procedure for admission. For transfer purposes, Reading Area Community College may accept up to a maximum of 45 credit hours of coursework completed at another accredited institution of postsecondary education which offers the Associate or Baccalaureate Degree and is listed in the most recent edition of Accredited Institutions of Post-secondary Education as published by the American Council on Education. Reading Area Community College **may accept** work completed with a grade of "D" if the cumulative G.P.A. is a "C" average (2.0 on a 4.0 grading scale) at the transfer institution. However, be apprised that there are certain programs of study (Health Professions, etc.) where College policy precludes the acceptance of any course with a grade below a "C". Students should check with the appropriate academic division office concerning this policy.

Acceptability of transfer credit also depends upon the appropriateness of the course or courses to a given curriculum, the comparability of the course previously earned to the courses offered by Reading Area Community College, and the length of time which has elapsed since the course credits were earned. **It is the responsibility of transfer students to present official transcripts and appropriate catalogs to assist in the proper evaluation of these credits.** Transfer Credit is not resident credit. When taking coursework at another college with a prior intent to transfer to Reading Area Community College, students are advised to submit a Transfer Course Approval Form.

5. REGENTS COLLEGE EXAMINATIONS
(formerly ACT-PEP)

Regents College Exams are administered at selected Sylvan Learning Centers.

6. CLEP (College-Level Examination Program).

CLEP tests are administered at Reading Area Community College. The College is considered an **"open test center"** which allows for a more flexible testing schedule. Students need only call the Office of Assessment to schedule a test. Students intending to transfer must contact the transfer institution to determine the acceptability of CLEP credits.

DANTES/CLEP: are similar in nature to CLEP tests. These tests were formally offered only to individuals involved with the various branches of the military. These tests have now been opened to the general public, and offer additional tests subjects. The College will offer DANTES/CLEP tests in the **"open test center"** format. Students intending to transfer must contact the transfer institution to determine the acceptability of DANTES/CLEP credits. Please call the Office of Assessment for additional information and to schedule a test.

7. MILITARY SERVICE TRAINING EVALUATIONS

Reading Area Community College will grant academic credit for military school service training as recommended in *The Guide to the Evaluation of Educational Experiences in the Armed Services* published by the American Council on Education. Credit may also be awarded based upon occupational specialty rating designation as recommended in *The Guide.* Military credit is not resident credit. Official military records must be requested and sent directly to the College for evaluation. The type of documentation required will depend upon the status of the applicant as follows:

United States Armed Forces Institute (U.S.A.F.I.) and Defense Activity for Nontraditional Support (DANTES) Examination Programs. Many of these subject examinations are acceptable for academic credit at Reading Area Community College. Official transcripts must be forwarded from Educational Testing Service directly to the College.

Proctoring Exams for Non Students

Individuals attending another institution enrolled in distance learning courses who need exams proctored may do so by contacting the Coordinator of Assessment.

8. ADVANCED PLACEMENT STANDING

College Entrance Examination Board (CEEB) Advanced Placement Tests. These tests are specifically designed to stimulate secondary school students to high achievement and eliminate needless duplication of studies in college. The examinations, which are designed and graded by the College Entrance Examination Board (CEEB) in Princeton, New Jersey, are administered at high schools. The examinations are graded on a scale of 1 to 5. A score of 3 or higher is acceptable for credit. Our CEEB reference number is 2743. The Nursing and Practical Nursing programs have advanced placement policies.

CLEP GENERAL EXAMS: **RACC AWARDS CREDIT FOR:**

English Composition . . . . Not Accepted at RACC
English Composition (with essay) . . . . Not Accepted at RACC
Humanities . . . . HUM 293   Humanities Elective (3-6 credits)
Mathematics . . . . MAT 030   Algebra I
Social Science/History . . . . SOC 293/HIS 293 Social Science Elective (3-6 cr)
Natural Sciences . . . . BIO 293/ENV 293 Science Elective (3-6 credits)

CLEP SUBJECT EXAMS:

English Composition . . . . Not Accepted at RACC
American Government . . . . POS 130   American Government
American History I: To 1877 . . . . HIS 110   History of the U. S. I
American History II: To Present . . . . HIS 115   History of the U. S. II
Introduction to Educational Psychology . . . . PSY 240   Educational Psychology
Introductory Psychology . . . . PSY 130   General Psychology
Human Growth and Development . . . . PSY 210   Child Psychology
Principles of Macroeconomics . . . . BUS 200   Macroeconomics
Principles of Microeconomics . . . . BUS 201   Microeconomics
Western Civilization I: Ancient to 1648 . . . . HIS 120   Western Civilization: To 1600
Western Civilization II: to Present . . . . HIS 125   Western Civilization: 1600-1945
College French - Levels I and II . . . . LAN 293   Foreign Language (3-6 credits)
College German - Levels I and II . . . . GER 101   and/or GER 102 German (3-6 credits)
College Spanish - Levels I and II . . . . SPA 101   and/or SPA 102 Spanish (3-6 credits)
American Literature . . . . HUM 241   American Literature I
                                                                          HUM 245   American Literature II
Analysis and Interpretation of Literature (No Essay) . . . . . HUM 293   Humanities Elective
English Literature . . . . Not Accepted at RACC
Freshman College Composition . . . . Not Accepted at RACC
Calculus . . . . MAT 220   Calculus I
College Algebra . . . . MAT 160   College Algebra
Trigonometry . . . . MAT 165   Trigonometry
Pre-Calculus . . . . MAT 180   Pre-Calculus
Biology . . . . BIO 293   Science Elective (3-4 credits)
Chemistry . . . . CHE 293   Science Elective (3-4 credits)
Principles of Management . . . . MGT 100   Principles of Management
Principles of Accounting . . . . ACC 105   Financial Accounting
Introductory Business Law . . . . BUS 230   Business Law
Principles of Marketing . . . . BUS 220   Principles of Marketing

CLEP credit is not considered resident credit.
*Reading Area Community College students are not eligible for any optional essay exams.
Please contact the Coordinator of Assessment with any questions in this regard.*

DANTES/CLEP: **RACC EQUIVALENT:**

Environment and Humanity . . . . ENV 130   The Environment
The Civil War and Reconstruction . . . . HIS 219   The American Civil War
Principles of Statistics . . . . MAT 210   Statistics
Fundamentals of College Algebra . . . . MAT 110   Algebra II
Money and Banking . . . . BNK 242   Money and Banking
Principles of Finance . . . . ACC 210   Financial Management
Human Resource Management . . . . MGT 200   Human Resources Management
Principles of Supervision . . . . MGT 210   Supervisory Management
Introduction to Business . . . . BUS 100   Introduction to Business
Personal Finance . . . . ACC 100   Personal Finance
Business Math . . . . BUS 110   Business Math
Criminal Justice . . . . LAW 135   Introduction to Criminal Justice

Advising/Counseling Services

ADVISING CENTER

The Advising Center provides academic advising services for RACC students. It is located on the first floor of Berks Hall. Important services offered included:

- Placement Testing
- New Student Advising Seminars
- Advising for ESL students
- Advising for Probation students
- Advising for Undecided students

NOTE: All other students are to see their assigned academic advisor. Use WebAdvisor or stop into the Advising Center to identify your assigned academic advisor. Students are strongly encouraged to meet with their assigned academic advisor on a regular basis.

CENTER FOR ACADEMIC SUCCESS

The Center for Academic Success (CAS) offers a wide range of services which help students succeed at Reading Area Community College. This center is located on the second floor of Berks Hall.

The College provides a staff of professional counselors who are available to assist students with personal and social matters as well as career, transfer and educational planning. In helping students, counselors may use standardized tests and inventories, educational and vocational materials, and financial aid information. The counseling staff follows the ethical standards of the American Association for Counseling and Development.

The following services are offered through the Center for Academic Success.

TRANSFER CENTER SERVICES

- Course equivalences with various colleges including Alvernia, Albright, Millersville, Kutztown and Penn State.
- College catalogs from colleges in Pennsylvania and some from across the country.
- Resources to help you find the college that suits your needs.
- Literature and applications from colleges across Pennsylvania.
- Transfer counselor available to answer all your questions.
- Free materials to help with your search.
- Information about specific courses, curriculum and their transferability to area colleges.

CAREER CENTER SERVICES

The mission of the Career Center is to provide students and alumni the opportunity to identify their career goals, establish ways in which these goals can be achieved, and connect with community employers and organizations that can help in the transition of students from college to the world of work. To facilitate this mission, the Career Center offers the following services:

- CAREER EXPLORATION - Career counseling is available for RACC students and alumni.
- DISCOVER - A computerized career exploration program is available for students who are undecided about career choice.
- WORKSHOPS - The Career Center offers a number of programs and workshops to assist students in identifying career goals and developing job search strategies.
- JOB OPENINGS - Employment information is posted on the Career Center bulletin board.
- RESUME CRITIQUE SERVICE - Students and alumni are encouraged to make appointments to have their resume evaluated.
- ON CAMPUS RECRUITING - Employers are invited to visit RACC and interview students.
- CAREER LIBRARY - Labor market data, job descriptions, internship information, and other career exploration and job hunting resources are available.
- CAREER DEVELOPMENT COURSES - A course on Career Decision Making, Resume Writing and Interviewing, and Professionalism on the Job are taught throughout the year.
- COOPERATIVE EDUCATION - The program is a partnership between the college and the employer that provides RACC students with the opportunity to apply the knowledge they have gained in the classroom to the reality of the workplace.

COOPERATIVE EDUCATION

Cooperative Education is an academic program designed to provide students with actual, valuable, and practical work experience in a supervised learning situation with a participating employer. The primary objective of Co-op is to bridge the gap between theory and practice by allowing the students to apply skills learned on campus to practical on-the-job learning situations and earn college credits in the process. The Co-op Program is required in some courses of study and is optional in any curriculum area except for Health Professions majors. It is generally up to the individual students, with the cooperation and

advisement of their Faculty Advisor, to determine if Co-op will enhance the particular academic program. Students enrolled in Co-op will gain valuable experience not only in the actual job functions, but also in the introduction to the world of work. The qualifications for participation in the Co-op Program are as follows:

a. Students should have a clearly stated career goal related to the potential work experience, be enrolled in a degree program in the curriculum under which the Co-op work experience falls, or be in a position to benefit from a career exploration work experience.

b. Students must have 27 credit hours of coursework or the equivalent of three full terms of college work in their curriculum and a 2.0 grade point average before entrance into the program. Eligibility and prerequisites may differ by Division and it is the responsibility of students to meet the requirements.

c. Students must have secured a job site with an approved Co-op employer before enrollment into the program. In any case, students must receive approval in writing from the Division Chair before registering for Co-op credits. A required component of the Cooperative Education Program is concurrent enrollment in CAR 105 Professionalism on the Job, a one-credit hour course.

Credits earned in an approved Cooperative Education Program may be substituted for up to three credit hours of coursework in the total curriculum. Specific course substitution must be approved by the Faculty Advisor. Co-op is considered resident credit.

For specific information regarding the Cooperative Education program, contact the Director of the Center for Academic Success at Reading Area Community College.

TUTORING SERVICES

Free tutoring is provided for most basic skills and freshman (100) level courses. In the tutorial center, tutors are available during posted hours to assist students on a walk-in basis in reading, writing, math, science, etc. and to facilitate study groups. Individual tutoring is available on a limited basis to those students assessed as requiring intensive assistance.

The ACT 101 EMPHASIS Program - The ACT 101 EMPHASIS Program provides supportive services for students who have good potential to succeed in college but who need to overcome academic and financial barriers. The EMPHASIS Program is funded by the Department of Education through ACT 101, the Pennsylvania Higher Educational Opportunity Act of 1971. Students participating in EMPHASIS receive pre-college preparation, tutorial services, and personal, academic, and career counseling. Other services are study skills workshops, support groups, and cultural/social activities. The EMPHASIS office is located on the second floor of Berks Hall.

Advantage Program/Student Support Services Program - Intensive assistance in college skills development is available through Support Services. Funded by the federal government, this project expands college access by providing basic skills instruction, tutoring and supportive counseling.

Carl Perkins Program - Federally funded, the Carl Perkins Grant provides academic and counseling support services to academically and financially challenged students who are pursuing technological degrees at Reading Area Community College. Students enrolled in applied science programs are eligible for these services which include tutoring, academic advisement and personal counseling.

Limited English Proficiency Program - This program introduces students to the concepts needed to develop strong writing skills in the English language. Counselors also assist students with personal, career and academic issues.

Services for Students with Disabilities - In accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act, Reading Area Community College welcomes all qualified students with disabilities. The college is committed to providing equal access in the educational environment for students with disabilities.

The Center for Academic Success coordinates appropriate accommodations for enrolled students. The mission of this office and its staff is to provide students with disabilities an equal opportunity to participate in the College's programs and services.

Eligibility
The student needs to provide documentation in a timely manner that specifies the disability and recommended accommodations. The student will meet with staff to develop an individual plan for appropriate accommodations.

Accommodations
A student with supporting documentation may receive accommodations in accordance with his or her needs. Accommodations may include the following:
- Appropriate classroom accommodations
- Academic support through the Tutorial Center
- Print magnification
- Sign language interpreters
- Extended time for test taking
- Note takers

Financial Aid

OVERVIEW

It is the basic belief of all financial aid programs that the primary responsibility for meeting college costs lies with the student. If a student and his or her family cannot meet the full cost of education, the Financial Aid Office, through available financial aid programs, helps students and their parents meet the cost of their education.

These funds can come from a variety of sources such as the federal government, the state government, private sources and from the school itself. Financial aid may be awarded in the form of a grant or scholarship - *money which does not have to be repaid*; a loan - *money which must be repaid*; or employment - *where a student works to earn money for school.* The type of aid you receive will be based upon your "need" as determined by the federal methodology. All aid can be accepted or declined by the student; but, in some cases, if declined, it will not be replaced by other sources of funding. Approximately 40% of all students at RACC currently receive financial aid.

HOW TO APPLY

Students must apply for aid each academic year. The Free Application for Federal Student Aid is available after January 1st for the next academic year. This application can be received by calling the Admissions Office or by stopping in the Financial Aid Office. Students who received aid for the prior year should receive a renewal application in the mail.

Steps To Apply:
1. File the FAFSA. Complete as much of the form as possible. Bring to the Financial Aid Office to be reviewed for errors and completeness.
2. Complete the RACC Financial Aid Application form and return to the Financial Aid Office.
3. If applying for a student loan, obtain a Stafford Loan application from your bank. Complete and mail to the address indicated on the application.
4. If you are a transfer student - request a financial aid transcript from your previous schools.

Although financial aid applications are accepted at any time during the year, students should attempt to submit their application before May 1 to ensure consideration for all possible financial aid programs.

ELIGIBILITY REQUIREMENTS

Currently enrolled and prospective students interested in applying for aid must:
1. Be a U.S. citizen; permanent resident; or eligible non-citizen.
2. Be enrolled or intending to enroll on at least a half-time basis for most programs.
   NOTE: *The PELL Grant may be available to students enrolled less than half-time.*
3. Be enrolled in a program of study leading to a degree or eligible certificate offered by Reading Area Community College.
   NOTE: *Auditing classes and non-credit classes are not paid for by financial aid.*
4. Be in "satisfactory academic standing" according to the College's academic probation policy.
5. Be maintaining "satisfactory academic progress" according to the College's Title IV Student Financial Assistance Satisfactory Academic Progress Policy published in the Financial Aid Handbook.
6. Not be in default on any Stafford, Perkins, HEAL or loans, and not owe a refund on any PELL, SEOG, or SSIG received at RACC or any previously attended school.
7. Be a High School graduate, have received a G.E.D. or show ability to benefit as determined by the placement tests.

VETERANS SERVICES

The Financial Aid Office acts as a liaison between our students who are veterans of the armed services and the Veterans Administration Office. Counseling and assistance are provided to veterans who need help in securing benefits under several different veterans educational programs. Reservists should bring their Notice of Basic Eligibility (DD2384) to the Financial Aid Office. All other veterans should bring their Report of Separation (DD214). All paperwork is processed through the Financial Aid Office.

TYPES OF FINANCIAL AID
FEDERAL AID

Federal Pell Grant – awards range from $400 to $3125 per academic year. Student may be enrolled less than half-time depending upon eligibility. Please consult the Financial Aid Office for information about deadlines.

Federal Supplemental Educational Opportunity Grant (SEOG) – awards are generally $100 to $300 per academic year. Student must maintain half-time status. Filing deadline is July 1 of each academic year.

Federal Work-Study Program (FWSP) – Student may work at designated sites on-campus during the academic year. Maximum amount that can be earned is $3500 per academic year. Student must be enrolled at least half-time. Application deadline is July 1 of each academic year.

Federal Stafford Loan – Requires a student loan application which can be requested from most banks and credit unions. Total loan amount can be from $500 to $3500 or $7500 if including subsidized loan. Students must maintain half-time enrollment. Although there is no filing deadline for the student loan, it does take approximately 90 days for the loan to be processed and therefore early application is recommended.

There are two types of *Federal Stafford Loans:*
Subsidized Loan – The interest on the loan is paid for by the federal government while you are in school. The student makes no interest or principle payments until 6 months after graduation or dropping below half-time status.

Unsubsidized Loan – Student must pay the quarterly interest payments while in school. Principle payments are still deferred until 6 months after graduation or dropping below half-time.

STATE FINANCIAL AID

Pennsylvania Higher Education Assistance Agency (PHEAA) Grant – Grants range from $200 to $3000 or a maximum of 80% of tuition. Student must maintain half-time status. The filing deadline for first time applicants in a two year career program is August 1 of each academic year and May 1 for Associate of Arts majors.

State Work-Study Program – The student must be a Pennsylvania resident. Students may earn up to $3600 per academic year by working in a job relating to their major. Students must be full-time.

SCHOLARSHIPS
Foundation for Reading Area Community College

The Foundation for Reading Area Community College supports the development and maintenance of the facilities and programs of RACC in order to broaden educational opportunities to its students, alumni, and all residents of Berks County.

The Foundation is an independent nonprofit 501(c)(3) corporation governed by a 28-member volunteer board of directors from Berks County. The Foundation exists exclusively to support Reading Area Community College. This is done by developing relationships with individuals, corporations and local private and public Foundations and enlisting assistance for major gift support.

Since its incorporation in 1981, the Foundation has developed over 50 donor designated endowed scholarship funds. Over 100 awards are made directly to students annually in the form of scholarships or emergency financial assistance. Scholarship awards in 2002-03 were over $135,400 and totaled over $163,300 in the 2003-04 school year.

There are twelve additional endowment funds designated for other purposes, principally enrichment of the Yocum Library collection. In addition, the Foundation also funds the purchase of instructional equipment and supports College initiatives to meet the special needs of students, staff and the community.

Endowed Funds of the Foundation

Donors may establish an endowment in memory of a loved one or to honor a favorite faculty member or family member. The Foundation staff works with donors to maximize charitable deduction benefits while establishing endowments that will fund scholarships and programs to help RACC meet its mission. Funds are disbursed according to criteria created by the donor at the time an endowment is established.

Fannie Abramson Scholarship
George W. and Alice C. Allwein
RACC Alumni Association Scholarship
RACC Alumni Association Library Endowment
RACC Alumni Association Emergency Crisis Fund
Elizabeth (Yocum) Benbow Scholarship
Joseph and Shirley Boscov Scholarship
Joseph and Shirley Boscov Library Endowment
Boscov Scholarship
Daniel B. and Blanche R. Boyer Scholarship
James K. and Nancy Lang Boyer Scholarship
James K. Boyer Scholarship
Joseph P. Connolly, Jr. Scholarship
Renee' L. Dietrich Scholarship
Edward J. Dives Scholarship
Margaret B. Edgar and Doris R.S. Miller Scholarship
Felicia S. Fayerman Scholarship
Severin Fayerman Scholarship
Federation of Reading Area Community College
  Local 3173 AFT-AFL-CIO Memorial Scholarship
Gauby Memorial Scholarship
General Library Endowment
Golf Tournament Scholarship
George Richardson Hackenberg Memorial Scholarship Fund
Honors Scholarship
Henry J. Huesman Scholarship
Illustrated Lecture Series Endowment

Evelyn S. Imber Scholarship
Jeannette Jamison Memorial Scholarship
The Henry Janssen Foundation Endowment
Leona C. Kline Nursing Scholarship
Helen M. Kubacki Scholarship
Ruth B. Mayer Library Fund
Herman D. Oritsky Scholarship
James K. Overstreet Library Endowment
Joseph S. and Mary (Yocum) Pendleton Scholarship
Irvin Persky Scholarship
Dora Rosner Scholarship
Irwin S. Rosner Business Scholarship
Benjamin S. Saylor Scholarship
Hertha Schmidt Scholarship
Rolf and Renata Schmidt Library Endowment
Student Government Association Scholarship
M. John Smith Scholarship
Bruce H. and Elizabeth A. Stanley Scholarship
Gretel E. Summons Endowment
Eileen Tucker Scholarship
Donald van Roden Scholarship
Wachovia Business Scholarship
Benjamin S. and Ruth Wagner Scholarship
Dr. Clifford C. and Doris Wagner Scholarship
Robert Benneville Yarnell Scholarship
Evelyn H. K. Yeide Scholarship
Clara Yocum Scholarship
Emma Kate Bright Yocum Scholarship
Emma Kate Bright Yocum Cultural Series
George Lehman Yocum Scholarship
George Lehman Yocum, Jr. Scholarship
Helen J. Yocum Scholarship
Howard W. Yocum Scholarship
James H. Yocum Library Endowment
James H. Yocum Scholarship
Valeria Yocum Scholarship
William and Mary (Potteiger) Yocum Scholarship
William H. Yocum Scholarship
William H. Yocum, II Scholarship
Richard F. Zarilla Endowment
Gust and Doris Zogas Education Scholarship

For further information, please contact us
  The Foundation for RACC
  Berks Hall – Room 309
  610-607-6239
  Foundation@racc.edu.

Other Services & Activities

BOOKSTORE

Students may purchase textbooks, other required reading materials, and classroom supplies from the Bookstore. The "Book RACC" has items for sale such as Reading Area Community College jackets, shirts, sweatshirts, and other sundries.

STUDENT PARKING SERVICES

Parking permits **must be obtained within the first two weeks of the term** in the lobby of Penn Hall. Students may park on Lot A (South of Franklin Street), Lot B (Orange Care Lot), or in the Parking Garage. Students requiring handicapped parking will find spaces on all lots as well as along Front Street in front of Penn Hall. If you plan to park in the Parking Garage, you must use your Student Identification Card (ID) to gain access to the garage.

EDUCATION LABORATORY CENTER

The Reading Area Community College Education Laboratory Center serves as a laboratory setting for Reading Area Community College's Early Childhood students and as a child care center for children of Reading Area Community College students. The Center is licensed by the Department of Public Welfare. All teachers are certified.

The hours of the ELC are Monday through Friday from 7:00 a.m. to 6:00 pm. Evening care from Monday through Thursday from 6:00 p.m. to 8 p.m. (5 or more children must be registered for evening care to run).

Rates are lower for students and for full-time care. All children must be registered for a regular schedule each term. In addition to hourly rates, a registration fee is charged each term. Space is limited in the morning; therefore, students may wish to consider arranging their classes after 1:00 P.M. Temporary drop-in care may also be available for children of RACC students. Students must call the ELC to determine is space is available for drop-in care.

Information may be obtained by contacting the Coordinator of the Education Laboratory Center.

STUDENT ACTIVITIES
Student Government Association

The Student Government Association (SGA) is the voice of the student body at Reading Area Community College. Composed of elected freshmen and sophomore senators, S.G.A. provides a wide variety of social activities for Reading Area Community College students and their families. The Student Government Association functions under its own Constitution and the Student Bill of Rights and Responsibilities. All students may participate in college council through SGA.

Clubs and Organizations

Reading Area Community College student clubs are based upon student interest and may vary from year to year. Typical clubs include the Student Newspaper, the Respiratory Care, and International Student Club. Any group of students with a common interest may petition for official sanction as a club. Procedural information may be obtained from the Coordinator of Student Activities.

The Phi Theta Kappa International Honor Society

Phi Theta Kappa, the honor society for two-year colleges, was founded in 1918. In addition to recognizing scholastic achievement, Phi Theta Kappa also provides members opportunities for Scholarship, Leadership, Service, and Fellowship.

The RACC chapter was chartered in 1990. Students are invited to join when they have completed at least 12 credits of associate degree coursework at RACC with a Grade Point Average of 3.60 or higher. Membership benefits include scholarship opportunities, gold stoles and tassels for graduation, and Phi Theta Kappa recognition on diplomas and transcripts.

Athletics and Intercollegiate Sports

Reading Area Community College is a member of the Eastern Pennsylvania Collegiate Conference. The College fields teams in Men's Soccer, Women's Volleyball, and Men's Basketball. Intramural athletic events requested by the student body are arranged throughout the year by the Athletic Department.

Health Services

Students who become ill or need emergency treatment will be directed to one of the local hospitals in Reading for care and treatment. The College assumes no responsibility for the medical treatment of students or for costs incurred for transportation to emergency services or for treatment rendered.

Student Housing

The College does not approve, rate, or provide any resident housing facilities. All arrangements for living quarters are the responsibility of the students.

Alumni Association

All students who have graduated from Reading Area Community College automatically become members of the Alumni Association. The Association is governed by a council who plans special activities and publishes a newsletter three times each year. For more information contact the Office of Alumni Affairs.

The Yocum Library, which opened in 1996, includes the library collection of approximately 50,000 items, which is housed on the 2nd through 4th floors of The Yocum Library Building on South Front Street. The circulation desk and reference collection are on the 2nd floor of The Yocum Library. The general collection is on the 2nd and 3rd floors; it includes books, video recordings (VHS and DVD), sound recordings, and other media which primarily are chosen to support the College's curricula. The special collections include children's books, juvenile books, paperback books, maps, art prints, the College archives, the Wes Fisher Music Score Collection, the Schuylkill Navigation System Map Collection, a research comic book collection, and the faculty reserve collection. The periodical collection consists of over 200 print magazines, journals, trade publications, and newspapers to which the library subscribes as well as thousands of periodicals accessible through subscription-based databases available via the Internet using the library's passwords.

The library publishes many guides to help the library users access library resources and services. These guides are available in print in the library as well as on the library's web site. The library provides customized instruction for RACC classes and also offers library research courses. Check the library web site "Instruction" section for more information.

The Yocum Library is part of the Berks County Advanced Library Information Network (ALIN) System, which links a number of libraries together, including Reading Public Library and Alvernia College. Because the libraries in the ALIN System share the same online catalog and circulation files, their patrons can easily locate and borrow items from any of the libraries in the ALIN System. RACC students have access to over a half million items in the county-wide ALIN collection as well as the online databases of Reading Public Library through the ALIN library card. You can access the ALIN catalog as well as the collection of online databases from your home via the Internet at www.racc.edu/library.

If your information needs cannot be met through The Yocum Library or ALIN collections, the library staff has access to library union catalogs such as Access PA and OCLC. Using these databases the library staff can identify holdings in other libraries and can obtain needed items by Interlibrary Loan. Ask the Reference Librarian or Head of Interlibrary Loan about this service.

Other services available in the library include assistive technology (text readers, a print text enlarger, a TDD/TDY telephone line, and software), group study rooms, and the Testing Center for College@Home and make-up tests. Ask at the Circulation Desk about access to these services.

Cultural programs that the library offers include a Shakespeare Film Festival as well as First Friday Films discussion group. The library also publishes The Yocum Library Column, a newsletter offering articles about library events and resources as well as reviews of books, films, and Internet web sites.

Web-Enhanced Courses

Web-enhanced courses use materials on a webpage or pages to supplement classroom instruction. It is not an online course. The student is expected to attend all scheduled class days and times. The College support faculty use of WebCT as a course management system for these courses. Students may be required to access course materials via the Internet. Specific instructions will be provided by the instructor of a web-enhanced course.

College@Home Courses

College@Home courses are designed for busy people who want to begin or continue their college education. *College@Home* courses are no easier than courses on campus, but they are more convenient. Students can take a *College@Home* course in their own home at times that fit their busy schedule. Thousands of students have found televised courses for credit to be not only a time and cost efficient way to go to college, but also an exciting way to get a college education. Television is a proven educational medium with unlimited dimensions. It takes students to places around the world and to events from the past, present and future, guided by experienced Reading Area Community College faculty.

Content Excellence

Reading Area Community College's *College@Home* courses do not merely consist of RACC faculty, or those of another college lecturing before a camera (the proverbial "talking-head"). These courses were professionally developed employing a core team of nationally recognized subject specialists, professional actors and actresses as well as experts in the field who serve as guest speakers. Each treatment of subject , each script, each study guide unit and textbook chapter are examined and field tested for accuracy and relationships to the whole as well as appropriate use of each medium.

Some *College@Home* courses have received nominations for, or have won, the prestigious Emmy Award from the Academy of Television Arts and Sciences.

Are *College@Home* Courses Easier?

No. *College@Home* courses cover the same material and require just as many hours of work as the same courses taught in a classroom. Moreover, *College@Home* courses require independent study. Independent study requires self discipline and motivation.

Successful students are those who follow the study guide or the course outline carefully and who do the reading assignments on a regular basis. *College@Home* **courses require good reading skills; they cannot be completed successfully by only watching television.** Consult your advisor as to the reading level of the text for the *College@Home* course which interest you.

How Does a *College@Home* Course Work?

A *College@Home* course consists of four components: a series of television programs (usually three different half-hour programs per week), a textbook, a study guide, and a Reading Area Community College faculty member (a facilitator). These all work together in the learning experience.

When students enroll in a *College@Home* course, they receive detailed course information, a broadcast lesson schedule and an examination schedule. Students meet with their Reading Area Community College facilitator at an on-campus orientation session. The facilitator holds regular office hours and is available by phone, email, or through a personal visit to the College. Throughout each *College@Home* course, several optional review sessions are held on campus.

What Are The Broadcast Times For A *College@Home* Course?

College@Home courses are broadcast on Comcast Channel 22 and Hamburg Cable Channel 17 at a wide variety of times of day, both during the week and weekends. If the broadcast schedule is not convenient, or you do not have Berks Cable, or even a television, the entire course can be viewed in Reading Area Community College's Yocum Library. Many students videotape the *College@Home* courses and view them at their own convenience. A full set of tapes for each course is also available for rental. The rental fee is a $75 deposit with a return of $60 when the tapes are returned to the College. No refund is given for late returns.

College@Home Courses Currently Available

ACC	100	Personal Finance
BIO	120	Biological Concepts
BUS	100	Introduction to Business
BUS	200	Macroeconomics
BUS	201	Microeconomics
BUS	220	Principles of Marketing
COM	121	English Composition
COM	131	Composition & Literature
ECE	125	Introduction to Early Childhood Education
ENV	130	The Environment
HEA	110	Health
HIS	135	America's Civil Rights Movement
HUM	261	History of Film
HUM	201	Art Appreciation
IFT	110	Microcomputer Applications
MAT	030	Algebra I
MAT	110	Algebra II
MAT	160	College Algebra
MGT	100	Principles of Management
PSY	130	General Psychology
PSY	210	Child Psychology
PSY	230	Abnormal Psychology
SOC	130	Sociology
SOC	220	The Family

Courses are also updated regularly by the provider to reflect new insights or discoveries about the subject.

Academic Policies & Procedures

COURSE SELECTION

All new students plan their first term of study in consultation with an advisor. Subsequently, students are assigned to Academic Advisors who assist them with course selection. Every effort is made to assign students to academic personnel who have experience and expertise in their programs of study. Students are urged to meet with their advisors regularly. **Although the College provides assistance in course selection, it is the responsibility of the students to keep abreast of any and all academic regulations that affect them through contact with an advisor.**

COURSE REPEAT POLICY

After two failures of a course, the course may be repeated only with the permission of the Vice President of Academic Affair/Provost.

REGISTRATION

Students will be notified when registration is to begin for each term. Students may register for courses online using WebAdvisor, or may register in person. Students are strongly encouraged to consult with their Academic Advisor prior to registering for courses. Information about your Academic Advisor can be found on WebAdvisor, or may be obtained in the Advising Center.

CROSS REGISTRATION

Reading Area Community College students have the opportunity to take classes at neighboring Berks County colleges and universities. Full-time RACC students are entitled to enroll in one course each semester (excluding summer sessions) at Albright, Alvernia, Kutztown or Penn State Berks, and only pay the RACC tuition rate. Cross-registration allows RACC students to:

- explore other classes and subjects that RACC does not offer.
- try out a school they are considering for transfer
- take a 300 or 400 level course in your future bachelor's degree program

Interested students should stop in the Transfer Center, Berks Hall.

CLASS ATTENDANCE POLICIES

The College expects all students to attend classes regularly. Specific attendance policies for any course are determined by each instructor. Students must complete all assignments, examinations, and other requirements in all of their courses. Absence does not constitute exemption from such obligations, and it is the responsibility of the students to take the initiative in making up any work missed. **Excessive absence may be cause for dismissal from a course or the College.**

FULL-TIME STUDY

The normal academic load is nine or ten credit hours per ten-week term. To be classified as full-time, students must carry a minimum of eight credit hours per term. Students carrying more than thirteen (13) credit hours per term must have the approval of their academic advisors and the Vice President of Academic Affairs/Provost, unless specified in the degree program.

ACADEMIC LOAD FOR VETERANS

It is important for veterans to know that Veterans Administration regulations specify a minimum of eight credit hours to qualify for full-time benefits. It is the responsibility of students who are veterans to comply with all VA regulations if they are to receive full-time benefits. For further information, veterans are advised to contact the Financial Aid Office.

FRESHMEN & SOPHOMORE CLASSIFICATION

Regularly enrolled students who have completed less than 30 credit hours at the College, or at another institution, are considered freshmen. Students who have completed 30 or more credit hours are designated sophomores.

DISMISSAL

Students who do not maintain a 2.0 ("C") grade point average may be dismissed. No students will be dismissed at the end of any term in which they earned a grade point average (G.P.A.) of 2.0 or better. Refer also to the section which discusses the grading system for more information. Students who are dismissed because of a low G.P.A. cannot return until they appeal to the Academic Affairs Committee for readmission. The Committee will decide whether or not students are to be readmitted and, if readmitted, under what conditions and limitations they will be placed. **Students enrolled in selective programs may be required to maintain a higher G.P.A.**

ACADEMIC RESTART

Students are eligible for Academic Restart if they have not been enrolled at RACC for two or more consecutive years and if they have an unsuccessful academic record during their previous enrollment. For more details, check with Center for Academic Success.

PROGRAM CHANGE

Students should make every effort to plan their program of study so that their course selection is in concert with career or educational goals. However, students may change their program of study if it becomes apparent that their abilities and interests are better suited to another curriculum.

A decision to change curriculums should be made by students only after they have discussed the matter thoroughly with their advisor. Students should go to the Advising Center for a Change of Curriculum form. The new curriculum becomes effective immediately upon receipt and processing of the Change of Curriculum form. (Students changing their

ACADEMIC HONORS

Term Honors

The College recognizes scholastic achievement of regularly enrolled degree students by publishing the President's List and the Dean's List at the end of each regular term.

The President's List includes the names of students who have earned eight or more credit hours and who have a term grade point average of 4.0.

The Dean's List includes the names of students who have earned eight or more credit hours and who have a term grade point average of 3.5 to 3.99.

The words "President's List" and "Dean's List" will appear on the student's transcripts to clearly indicate the student's academic status.

Graduation Honors

The College recognizes an Academic Honors Group at graduation. The Academic Honors List includes the names of graduates who have earned 30 hours or more of their coursework at Reading Area Community College and earned a cumulative grade point average of 3.50 or better.

Honor students will be recognized as follows:
Cum Laude   3.50 - 3.74 (bronze honor cord)
Magna Cum Laude   3.75 - 3.94 (silver honor cord)
Summa Cum Laude   3.95 - 4.00 (gold honor cord)

TRANSCRIPTS

Transcripts may be obtained from the Records Office. Student transcripts are confidential and protected by the Family Education Rights and Privacy Act of 1974. Therefore, no transcripts or grades shall be released through a telephone call. If students wish to request a transcript of their academic work, they should contact the Records Office in person or send a signed letter by mail. This signed letter must contain the student's name, current address, social security number, and the address to which the transcript should be sent. No facsimile will be generated for transcripts, verification letters or grade reports. A $3.00 fee is charged for each transcript and must accompany any request. No transcript or official statement shall be issued to a student who either is financially indebted to the College or who has not fully satisfied College requirements.

curriculum to one in the Health Professions must additionally complete a special application in the Admissions Office.)

A student who is readmitted and/or officially changes his/her program area of study is required to follow the catalog in effect at the time of his/her readmission and/or change of academic program.

CHANGE OF SCHEDULE

Adjustments to schedule can be made using WebAdvisor or by completing the change of roster form available in the Advising Center or Records Office. There are specific periods of time each term for adding, dropping and withdrawing from courses. Information about these dates is available from the Records Office or the Advising Center.

Students who find it necessary to stop attending courses must formally withdraw.

All schedule changes become official when they are processed by the Records Office.

AUDITING

Students may choose to audit a course. This means that the students may attend the course for no grade, and all required work is waived. No credit is given for an audit. Students who audit a course must register for the class in the same manner and at the same time prescribed for regular classes. They must also pay required tuition and fees as if they were registering for credit in the course. Within the add period, students are allowed to change their status in a course from credit to audit, or from audit to credit.

FINAL GRADES

Students will receive final grades in the via the web (www.racc.edu). Grade information will not be released by telephone. Only the faculty member who has taught a student in a course can change a grade. Students who are taught by a team of teachers may only have their grades changed when there is complete unanimity. After one year, no course grade can be changed without the written permission of the Vice President of Academic Affairs/Provost.

STUDENT RECORDS

Reading Area Community College maintains two kinds of student records; the cumulative folder and the permanent transcript. All student records are maintained on a confidential basis as outlined in the Family Education Rights and Privacy Act of 1974. Students can access these records by written request to the Registrar, who will respond within 45 days. Copies of the Privacy Act are available upon request in the Records Office, Berks Hall.

STUDENT RIGHT-TO-KNOW ACT

Public Law 101-542 requires colleges and universities to report the graduation/college transfer rates for new full-time students who enrolled during a specific Fall Term. Accordingly, the graduation and college transfer rate for new full-time students entering during the 2002 Fall Term was 30%. The Right-to-Know Act also permits institutions to publicize persistence (re-enrollment) rates for this same student group. Thus 37% of the entering 2003 Fall Term student group re-enrolled during the 2004 Fall Term.

MAJOR VIOLATIONS OF COLLEGE REGULATIONS*

The following student actions shall be regarded as violations of the College regulations, policies, or procedures, with a possible maximum penalty of expulsion:

a. Failure to comply with the College's policy on academic honesty.
b. Forgery, falsification, and/or unauthorized use of an official College document or College identification card.
c. Possession, use, sale, or exchange of alcoholic beverages on College property or at College-sponsored functions.
d. Assault and battery upon another person while on College-owned or controlled property.
e. Deliberate destruction of, damage to, malicious misuse of, or abuse of College property or any individual's private property physically located on College-owned or controlled property.
f. Theft or attempted theft of College or individually owned property.
g. Illegal/unauthorized use, possession, sale, or exchange of narcotics or drugs on campus.
h. Tampering with fire alarms or firefighting equipment on campus, including issuing false alarms of any nature.
i. Illegal/unauthorized possession, or use of fireworks, firearms, knives, explosives, weapons, or any item which has been modified or adapted so that it can be used as a weapon.
j. Failure by a student on campus to identify himself/herself and/or provide valid identification when requested by an authorized College official or security officer.
k. Disruptive physical behavior and/or verbal interference with normal activities of the College community that take place in classrooms, offices, and public areas. Such conduct includes but is not limited to:
   • threats, intimidation, coercion, or use of physical force in a manner which causes another member of the College community to be fearful of physical harm;
   • physical abuse or injury of another member of the College community;
   • lewd, indecent, obscene, or disorderly conduct;
   • deliberate and/or continuous interruption of instruction.
l. Intoxication due to alcohol, narcotics, etc., on College-owned or operated property.
m. Participation in or organization of any unauthorized activities on College-owned or controlled property.
n. Unauthorized entry to or use of College facilities, including buildings and grounds.
o. Violations of rules or policies regarding privileges extended to RACC students by other schools/colleges through formal agreements.
p. Harassment, which includes but is not limited to sexual/racial harassment, of any student, employee, organization, or officer of the College or any individual or organization visiting or passing through the College campus.
q. Utterance of false testimony or submission of false written statements at any proceeding authorized by this document.
r. Commission of any act that would be considered a felony or misdemeanor, or any act which results in a citation being issued or an arrest being made while on College owned or operated property or while attending or travelling to/from an officially sponsored function.
s. Persistent infraction of College regulations, policies, or procedures intended for the safety of buildings and/or personnel (i.e. smoking in prohibited areas.)

Taken from Student Bill of Rights and Responsibilities.
Approved May 14, 2003 and effective Summer Session 2003.

STATEMENT OF ACADEMIC HONESTY

The principles of truth and honesty are expected to be followed in all academic endeavors. Academic dishonesty in any form will not be tolerated. A procedure has been developed to prevent occurrences of academic dishonesty and to guide faculty and students should they become involved in such incidents. This procedure is fully described in the Student Handbook. A copy of the Academic Honesty Policy is available from The Student Government Association or The Vice President for Enrollment Management/Student Services. A copy of the Bill of Rights and Responsibilities for Electronic Learners is available from the Vice President for Enrollment Management/Student Services or the Student Handbook.

Grading System

The grading system is based on a 4.0 grade point Scale. The letter grade and value assigned is indicative of the caliber of academic work achieved by students.

GRADING SYSTEM

Letter Grade	Definition	grade points
A	Excellent Performance	4.0
A-		3.7
B+	Above Average Performance	3.3
B		3.0
B-		2.7
C+	Average Performance	2.3
C		2.0

CAUTION*
Below Average – May Not Transfer; May Count Toward Graduation

C-	Below Average Performance	1.7
D+	Minimal Performance	1.3
D		1.0
F	Failing Performance (1986-Present)	0.0
R	Failing Performance (1979-1986)	0.0

Letter Indicator	Definition
I	**Incomplete.** Only given with permission of the faculty member when extenuating circumstances prevent students from completing the course work during the regular college session. This work must be completed within 30 days after grades are due; otherwise, the Incomplete automatically becomes an "F" unless a time extension is granted under extenuating circumstances.
SE	**Course in session.** This Letter Indicator appears on all official transcripts if processed while courses in which students are enrolled have not concluded.
T	**Transfer credits** from another institution.
W	**Withdrawal.** If the Withdrawal is completed by the end of the sixth week of a ten-week term or the equivalent percentage (see College Calendar), this Letter Indicator will appear on the permanent records. If students withdraw after the end of the stated time period, a Letter Grade of "F" will appear on the permanent records. However, in the case of extenuating circumstances that are <u>documented</u> and approved by the faculty member of the course (or Division Chair if the faculty member is unavailable, or the Vice President of Academic Affairs if neither are available), a Letter Indicator of "W" may be granted.
X	**Recognition of credits for:** CLEP, Credit by Examination, Assessment of Experiential Learning, or for a course audit. No final Letter Grade is issued to students who elect to audit credit courses; therefore, it is not used in computing the grade point average. (1991-1992)
AP	**Recognition of credits for:** Advanced Placement (1993-Present).
NE	**Recognition of credits for:** CLEP/ACT-PEP national exams (1993-Present).
CA	**Recognition of credits for:** Credit by Articulation (1993-Present).

Letter Indicator	Definition
IE	**Recognition of credits for:** Credit by Exam (In-house Exam) (1993-Present).
EC	**Recognition of credits for:** External Credit (1993-Present).
ME	**Recognition of credits for:** Military Experience (or classes) (1993-Present).
PA	**Recognition of credits for:** Portfolio Assessment (1993-Present).

Credits Calculated - The total credits from courses whose grades are used in the calculation of grade point averages. Does not include repeated courses or Letter Indicators. The G.P.A. is based on credits calculated. A low G.P.A. may result in probation or dismissal.

Credits Earned - The total credits from all credit courses with a letter grade above an "F". These are the credits that count toward graduation and fulfillment of degree requirements.

Calculation of grade point average - The number of grade points earned divided by the number of credits calculated. The number of grade points obtained by students in courses shall be computed by multiplying the credit weight by the grade point equivalent.

* Students may repeat courses in which they received a grade **below** "C". This includes the Letter Grades: "C-", "D+", "D" "F", "R". When courses are repeated, the earlier grades remain on the permanent records; but only the last enrollment grades are used in the computation of the cumulative G.P.A. The repeat must be with courses at the College; it may not be by study at another institution.

> N.B. The Veterans Administration views a Withdrawal ("W") as an audited course and, as a result, receipt of the "W" could reduce V.A. benefits. Eligibility for some other financial aid programs may be affected when students choose this course adjustment option. Please see a Financial Aid Officer for clarification.

STUDENT APPEAL OF GRADE(S)

Student appeal of grades (including final grades) must be initiated by the last day of classes for the term immediately following the term in which the grade was given. Appeals for Spring Term grades must be made by the end of the Fall Term, not the summer. It is incumbent upon the student to produce documents for the hearing(s) on the grade appeal. The appeal process is as follows:

1. The student first appeals the grade to the instructor in the course.

2. If not satisfied with the decision of the instructor, the student has the right to appeal to the Division Chair of the Division in which the course is offered.

3. If not satisfied with the decision of the Division Chair, the student has the right to appeal to the Academic Affairs Committee of the College Council.

4. If not satisfied with the decision of the Academic Affairs Committee of the College Council, the student has the right to appeal to the Vice President of Academic Affairs/Provost.

All student appeals must be made in writing prior to the aforementioned deadline. It is understood that the final decision concerning student grades is the sole prerogative of the course instructor. Accordingly, decisions made through the above appeals process are advisory in nature.

Academic Probation

The following chart will be used to determine a student's academic standing:

Credits Calculated	Academic Dismissal	Academic Probation	Minimum Acceptable Progress
1 - 16	- - - - - - - - - -	.00 - 1.49	1.50
17 - 30	- - - - - - - - - -	.00 - 1.84	1.85
31 +	.00 - 1.70	1.71 - 1.99	2.00

Guidelines
1. Whenever grades are posted, probation status will be assessed based on the number of credits calculated and the Grade Point Average earned. (This assessment will occur every term, including summer.)

2. In addition to special programs and services offered by RACC staff members to assist students on probation, the following registration limitations will apply:
   - Registration holds will be placed on probation students after grades are posted each term. Once the holds are placed, probationary students will need to meet with a member of the advising staff in order to register for courses.
   - Designated advising staff will follow-up with students on probation in order to coordinate services and facilitate awareness of registration limitations. Probationary students will work with an advisor to develop a Success Contract which may specify coursework to be repeated or taken.
   - Students who have been on academic probation for one term may register for up to nine credits. Students who have been probation for two consecutive terms may register for up to seven credits. Students who remain on probation for three or more consecutive terms may register for u to four credits.
   - Students on academic probation may register for up to four credits during summer terms.

GRADE POINT AVERAGE (G.P.A.)

The Grade Point Average is determined by dividing the number of credits attempted into the grade points.

EXAMPLE

Course		Cr		Grade			Q.P.
ORI	100	1	x	(B+)	3.3	=	3.3
COM	121	3	x	(C)	2.0	=	6.0
SOC	125	3	x	(A-)	3.7	=	11.1
		7					20.4

20.4 ÷ 7 = Term G.P.A. 2.91

ENV	121	3	x	(C)	2.0	=	6.0
COM	131	3	x	(B-)	2.7	=	8.1
		6					14.1

14.1 ÷ 6 = Term G.P.A. 2.35

34.5 ÷ 13 = Cumulative G.P.A. 2.65

See Grading System on previous page.

3. Any student whose Cumulative Grade Point Average falls in the Academic Dismissal category will not be dismissed IF his/her current term GPA is 2.0 or greater.

4. A student being Academically Dismissed may have dismissal waived for the current term by signing an "Alternative to Academic Dismissal" contract with the Advising Center. This option may only be taken once.

5. Any student who is academically dismissed may appeal for reinstatement through the Academic Affairs Committee of the College Council. Note: Once dismissed, the student will be ineligible to register for the following term. Registration for subsequent terms will be possible only if approved by the Academic Affairs Committee.

Graduation Requirements

The Pennsylvania State Board of Education has authorized Reading Area Community College to award the Associate in Arts Degree (A.A.), the Associate in General Studies Degree (A.G.S.), the Associate in Applied Science Degree (A.A.S.), the Certificate of Specialization, and the Diploma. The granting of a degree, certificate or diploma is recognition that a student has successfully completed all requirements for a particular program of study.

Associate in Arts Degree
1. Successful completion (passing grades) of at least 60 credit hours of study (including the General Education Requirements for the A.A. degree) with no fewer than 15 credit hours earned at Reading Area Community College.
2. Achievement of a cumulative Grade Point Average of 2.00 or more ("C" average or better) in college-level courses (i.e., 100-level courses or higher).
3. See "Additional Requirements."

Associate in Applied Science Degree:
1. Successful completion (passing grades) of the required number of credit hours of study as listed in the given curriculum (including The General Education & Career Requirements for the A.A.S. degree) with no fewer than 15 credit hours earned at Reading Area Community College.
2. Achievement of a cumulative Grade Point Average of 2.00 or more ("C" average or better) in college-level courses (i.e., 100-level courses or higher).
3. See "Additional Requirements."

Associate in General Studies Degree:
1. Successful completion (passing grades) of at least 60 credit hours of study (including all courses in the student's individualized program of study) with no fewer than 15 credit hours earned at Reading Area Community College.
2. Achievement of a cumulative Grade Point Average of 2.00 or more ("C" average or better) in college-level courses (i.e., 100-level courses or higher).
3. See "Additional Requirements."

Certificate of Specialization:
1. Successful completion of all courses listed in the certificate program.
2. Completion of 25% or more (with a minimum of 9 credits) of the certificate program at Reading Area Community College.
3. Achievement of a cumulative Grade Point Average of 2.0 or more ("C" average or better) in college-level courses (i.e., 100-level courses or higher).
4. See "Additional Requirements."

Diploma Programs:
1. Successful completion of all courses listed in the diploma program.
2. Completion of 25% or more (with a minimum of 6 credits) of the diploma program earned at Reading Area Community College.
3. Achievement of a cumulative Grade Point Average of 2.0 or more ("C" average or better) in college-level courses (i.e., 100-level courses or higher).
4. See "Additional Requirements."

Additional Requirements
1. Satisfaction of all admission requirements and financial obligations to the College.

2. Completion of all testing and examinations required by the College.
3. Submission of the College's Application for Graduation by publicized institutional deadlines.

GRADUATION PROCEDURES
Reading Area Community College awards most degrees, certificates, and diplomas in December and June with the exception of graduates in the Practical Nursing Program. Students who graduate from the Practical Nursing Program will be eligible for the Certificate in their September graduation ceremony. Students who wish to receive their degrees, certificates, and/or diplomas in December, June or September must submit a completed graduation application.

All program course work must be completed prior to graduation; however, students will be permitted to participate in commencement exercises with two courses remaining provided:

1. The two courses remaining for the program requirements must be taken the term following commencement.
2. Students must register for the remaining course(s) by graduation day.
3. A petition in writing must be submitted to the Vice President for Enrollment Management/Student Services to participate in commencement exercises if not all program requirements have been met. A copy of the student's next term schedule must be attached to the petition.
4. No degree, certificate, and/or diploma awards will be released to students until all program requirements have been met.

POLICY FOR GRADUATES
WITH MULTIPLE PROGRAM AWARDS

SECOND DEGREE
A second degree is awarded only when all the program requirements for the second degree have been met and when students have successfully completed 15 additional credits that are not duplicated in the first degree program.

SECOND CERTIFICATE
A second certificate is awarded only when all the program requirements for the second certificate have been met and when students have successfully completed 9 additional credits that are not duplicated in the first certificate program.

SECOND DIPLOMA
A second diploma is awarded only when all the program requirements for the second diploma have been met and when students have successfully completed 6 additional credits that are not duplicated in the first diploma program.

COMBINATION OF DEGREE, CERTIFICATE, AND/OR DIPLOMA AWARDS

1. Students who plan to graduate with a combination of a degree and certificate must have successfully completed 9 additional credits toward the certificate that are not duplicated in the degree program.

2. Students who plan to graduate with a combination of a degree and diploma must have successfully completed 6 additional credits toward the diploma that are not duplicated in the degree program.

3. Students who plan to graduate with a combination of a certificate and diploma must have successfully completed 6 additional credits toward the diploma that are not duplicated in the certificate program.

4. Students who plan to graduate with a combination of a degree, certificate, and diploma must have successfully completed 15 additional credits toward the certificate and diploma that are not duplicated in the degree program.

Students who were enrolled at RACC prior to the Fall 2005 Term and who have maintained matriculation without interruptions of no more than two terms, will not be subject to the new policy and the College will be able to use the cumulative GPA that includes both pre-collegiate and college-level courses for graduation eligibility and approval. Meanwhile, "all new students" in the Fall 2005 Term and "returning students who have not maintained matriculation at RACC during two consecutive terms" will be subject to the new policy's effective start date of Fall 2005 Term.

BASIC COURSES AS FREE ELECTIVES
Effective with the Fall Term 2003, only credit courses with a designation of 100 or above will apply toward degrees, certificates, and/or diplomas. This policy applies to new students and students who are readmitted to the college after an absence of more than two consecutive terms (excluding summer terms). A student who is readmitted and/or officially changes his/her program area of study is required to follow the catalog in effect at the time of his/her readmission and/or change of academic program.

General Education Requirements

ASSOCIATE IN APPLIED SCIENCE
Career Programs

The College offers the Associate in Applied Science (A.A.S.) degree. These A.A.S. degrees are also referred to as Career Programs. They academically prepare students for employment upon graduation.

The General Education Requirements for all A.A.S. candidates are listed on the following pages. It is mandatory that all A.A.S. candidates complete these courses in addition to their Major Requirements. The purpose of this component of the associate degree is to offer exposure to the five academic divisions of the College which will serve to enhance the strength of the program in which students choose to major. Deviations from these requirements are approved only for extenuating circumstances by the Faculty Advisor, Division Chair and Vice-President of Academic Affairs/Provost.

ASSOCIATE IN ARTS
Transfer Programs

Students pursuing a Transfer Program will earn the Associate in Arts (A.A.) degree upon completion of all requirements. The programs have been designed with a level of adaptability because of the diversity of colleges and universities to which students may transfer.

The General Education Requirements for all A.A. programs are listed on the following pages. They are the mandatory courses that students complete in addition to their Major Requirements and Electives. As noted in the previous paragraph, the variance of academic programs at other educational institutions makes the selection of the Major Core Electives of paramount importance; therefore, it is recommended that students work closely with the Center for Academic Success, their Advisor, and the Admissions Department of the four-year college or university to which they wish to transfer.

Although the College maintains a position of adaptability with regard to certain courses within the A.A. curricula, deviations from the General Education Requirements or the Major Requirements are approved only for extenuating circumstances by the Faculty Advisor, Division Chair and Vice-President of Academic Affairs/Provost.

ASSOCIATE IN GENERAL STUDIES
Individualized Programs

The Associate in General Studies (A.G.S.) degree is an individualized curriculum which allows students to design their own degree programs for professional development or transfer. The College may also recommend the A.G.S. to students with a large number of transfer credits because of the proportion of total credits in free electives.

The General Education Requirements listed on the following pages are the mandatory courses that all A.G.S. candidates complete in addition to Electives. Deviations from these requirements are approved only for extenuating circumstances by the Director of the Center for Academic Success, Division Chair and Vice-President of Academic Affairs/Provost.

NOTE: This degree program requires careful planning with the transfer institution to allow for maximum transferability of credits.

CERTIFICATE OF SPECIALIZATION
College Credit Programs

The Certificate of Specialization - College Credit Programs provide students with the opportunity to gain specialized knowledge to advance in their jobs, learn new skills, update the skills they have, or to help them change careers.

Generally, similarities between the requirements of the Certificate Programs and the corresponding Associate in Applied Science programs can be found. Therefore, many candidates elect to enroll in the Certificate Program first and then, after completion, continue in the Associate in Applied Science degree.

DIPLOMA
College Credit Programs

The Diploma - College Credit Programs provide students with specific technical job skills. Students who complete the requirements of a Diploma gain specialized skills for workforce entry or promotion.

Institutional Core Competencies

The Institutional Core Competencies are the knowledge, skills and abilities that Reading Area Community College graduates should be able to demonstrate in the workplace and society of the 21st Century. These institutional core competencies will be integrated into the general education core curriculum of each College associate degree program to ensure that students have learned the critical skills to succeed in today's rapidly-changing, global and technological society. Therefore, each graduate of an associate degree will be expected to learn and show competencies in the following areas:

COMMUNICATION SKILLS
Graduates should be able to communicate effectively in a variety of modes, within a variety of settings and for a variety of purposes. This involves mastery of college-level reading, writing, speaking and listening skills as well as effective interpersonal skills.

AWARENESS AND SENSITIVITY SKILLS
Graduates should be able to analyze the diverse aspects of cultural heritage, including those artistic, historical, economic, political, social, scientific and technological developments that help shape present societies and the impact of this heritage on the environment. They should be able to identify their personal values, recognize ethical choices and analyze the implications of personal decisions. Graduates should be able to demonstrate personal growth and an awareness of cultural diversity.

CRITICAL THINKING SKILLS
Drawing from the knowledge of appropriate disciplines, graduates should be able to evaluate the validity of ideas through critical thinking, which employs the skills of reasoning, logic and creativity. Using these skills, graduates should be able to present convincing arguments.

PROBLEM SOLVING SKILLS
Using critical thinking skills, graduates should be able to solve problems. This process requires assessing information; identifying problems; generating, evaluating and selecting possible solutions as well as preparing and evaluating implementation plans.

STUDY SKILLS
Graduates should be able to employ effective study skills in order to meet assessment criteria. This process includes the ability to follow directions, implement various reading strategies and identify and organize critical information for future recall. In addition, graduates should be able to demonstrate self-directed learning.

MATHEMATICAL SKILLS
Graduates should be able to apply the skills of qualitative reasoning, quantitative reasoning, symbolic reasoning and computation to evaluate and solve mathematical problems systematically.

INFORMATION TECHNOLOGY SKILLS
Graduates should be able to demonstrate the ability to create, save, retrieve, modify and analyze date using computer-based technology. They should be able to use word processing software as well as software appropriate to their program of study. In addition, graduates should be able to access information via the Internet and other digital sources.

INFORMATION LITERACY SKILLS
Graduates should be able to access, evaluate, organize and use information ethically and legally using a variety of credible sources and demonstrate appropriate methods of research. In addition, they should be able to interpret and evaluate findings and draw conclusions.

GENERAL EDUCATION REQUIREMENTS FOR THE ASSOCIATE IN APPLIED SCIENCE

Career Programs • 19 minimum credits

COMMUNICATIONS   CREDITS - 6

COM   121   English Composition   *or*   COM 122
AND one of the following as listed in the career program:
BUS   106   Business Communications
COM   131   Composition & Literature   *or*   COM 132
COM   141   Technical Writing

HUMANITIES   CREDITS - 3

Choose ONE from the following list:

HUM	111	Introduction to Drawing	HUM	249	Contemporary American Literature
HUM	121	Painting	HUM	251	Introduction to Drama
HUM	201	Art Appreciation	HUM	255	Shakespeare
HUM	221	Music Appreciation	HUM	261	History of Film
HUM	231	World Literature I	HUM	271	Introduction to Philosophy
HUM	235	World Literature II	HUM	275	Ethics
HUM	241	American Literature I	HUM	299	Seminar
HUM	245	American Literature II	200 level		Humanities Honors Elective

MATHEMATICS   CREDITS - 3 to 4*

Select the specific course listed in the career program:
BUS   110   Business Mathematics
MAT   110   Algebra II
MAT   150   Foundations of Mathematics
MAT   160   College Algebra
MAT   180   Precalculus
MTT   120   Machine Tool Mathematics I

NATURAL/PHYSICAL SCIENCES   CREDITS - 3**

ENV   130   The Environment   *or* ENV 131

ORIENTATION   CREDITS - 1

ORI   100   College Success Strategies****   *or* ORI 101 (Course must be taken during first term of enrollment.)

SOCIAL SCIENCES   CREDITS - 3***

SOC   125   The Individual & Society

The total credits required to fulfill the graduation requirements for the Associate in Applied Science degree programs vary according to the major area of study. Please see your academic advisor at least two terms prior to graduation to determine whether you meet the graduation requirements for your major.

   * A higher level mathematics course may be substituted for the one listed in the curriculum outline if approved by the Faculty Advisor.*
  *** Students majoring in Laboratory Technician, Medical Laboratory, Nursing, or Respiratory Care fulfill this requisite with a four-credit, laboratory science course.*
 *** Nursing students substitute sociology for this course.*
**** *Any transfer student who has completed a minimum of 24 credits with a GPA of 2.0 or better from an accredited college or univeristy may choose to have the College Success Strategies class waived.*

GENERAL EDUCATION REQUIREMENTS FOR
THE ASSOCIATE IN ARTS

Transfer Programs • 32 minimum credits

COMMUNICATIONS   **CREDITS - 6**

COM	121	English Composition *or* COM 122	COM	131	Composition & Literature *or* COM 132

HUMANITIES   **CREDITS - 6**

Choose TWO from the following list:

HUM	111	Introduction to Drawing	HUM	249	Contemporary American Literature
HUM	121	Painting	HUM	251	Introduction to Drama
HUM	201	Art Appreciation	HUM	255	Shakespeare
HUM	221	Music Appreciation	HUM	261	History of Film
HUM	231	World Literature I	HUM	271	Introduction to Philosophy
HUM	235	World Literature II	HUM	275	Ethics
HUM	241	American Literature I	HUM	299	Seminar
HUM	245	American Literature II	200 level		Humanities Honors Elective

MATHEMATICS   **CREDITS - 3 to 4**

Choose ONE from the following list:

MAT	150	Foundations of Mathematics	MAT	180	Precalculus
MAT	160	College Algebra	MAT	210	Statistics
MAT	165	Trigonometry	MAT	220	Calculus I

NATURAL/PHYSICAL SCIENCES   **CREDITS - 7**

ENV 130   The Environment *or* ENV 131

AND choose ONE of the following four-credit, laboratory courses:

BIO	120	Biological Concepts	CHE	120	Principles of Chemistry
BIO	150	Biology I	CHE	150	Chemistry I
BIO	155	Biology II	CHE	155	Chemistry II
BIO	205	Zoology	PHY	120	Principles of Physics
BIO	210	Botany	PHY	240	Physics I
BIO	280	Microbiology	PHY	245	Physics II

ORIENTATION   **CREDITS - 1**

ORI 100   College Success Strategies***   *or*   ORI 101   (Course must be taken during first term of enrollment.)

SOCIAL SCIENCES   **CREDITS - 6**

Choose ONE from the following list:

ANT	140	Cultural Anthropology	SOC	125	Individual & Society
POS	130	American Government	SOC	130	Sociology
PSY	130	General Psychology			

AND choose ONE from the following list:

ANT	135	Human Evolution: Physical, Anthropology, & Archaeology	HIS	130	Introduction to Contemporary History
ANT	140	Cultural Anthropology	POS	130	American Government
ECO	250	Comparative Economic Systems	POS	135	State & Local Government
BUS	200	Macroeconomics	PSY	120	Interpersonal Relations
BUS	201	Microeconomics	PSY	130	General Psychology
HIS	110	History of the United States to 1877	SOC	125	Individual & Society
HIS	115	History of the United States Since 1865	SOC	130	Sociology
HIS	120	Western Civilization: To 1600	Social Sciences Honors Elective		
HIS	125	Western Civilization: 1600-1945			

ELECTIVE   **CREDITS - 3 to 4**

Choose ONE of the following courses or any course listed on this page which has not been used to fulfill the academic discipline requisite:

COM	151	Fundamentals of Speech *or* COM 152	HEA	110	Health
PSY	120	Interpersonal Relations & Communications	- - -	- - -	Foreign Language

A minimum of 60 credits is required to fulfill the graduation requirements for the Associate in Arts degree program. Please see your academic advisor at least two terms prior to graduation to determine whether you meet the graduation requirements for your major.

  ** *Major requirements may not be used to satisfy general education requirements.*
 *** *Any transfer student who has completed a minimum of 24 credits with a GPA of 2.0 or better from an accredited college or univeristy may choose to have the College Success Strategies class waived.*

GENERAL EDUCATION REQUIREMENTS FOR
THE ASSOCIATE IN GENERAL STUDIES
Individualized Program • 22 minimum credits

COMMUNICATIONS   **CREDITS - 6**
COM 121   English Composition *or* COM 122
AND Choose ONE of the following courses:
BUS   106   Business Communications
COM 131   Composition & Literature *or* COM 132
COM 141   Technical Writing
COM 151   Fundamentals of Speech *or* COM 152

HUMANITIES   **CREDITS - 3**
Choose ONE of the following courses:
HUM 111   Introduction to Drawing   HUM 249   Contemporary American Literature
HUM 121   Painting   HUM 251   Introduction to Drama
HUM 201   Art Appreciation   HUM 255   Shakespeare
HUM 221   Music Appreciation   HUM 261   History of Film
HUM 231   World Literature I   HUM 271   Introduction to Philosophy
HUM 235   World Literature II   HUM 275   Ethics
HUM 241   American Literature I   HUM 299   Seminar
HUM 245   American Literature II   200 level   Humanities Honors Course

MATHEMATICS   **CREDITS - 3 to 4**
Choose ONE of the following courses:
BUS   110   Business Mathematics   MAT 165   Trigonometry
MAT 110   Algebra II   MAT 180   Precalculus
MAT 150   Foundations of Mathematics   MAT 210   Statistics
MAT 160   College Algebra   MAT 220   Calculus I

NATURAL/PHYSICAL SCIENCES   **CREDITS - 3 to 4**
Choose ONE of the following courses:
BIO   120   Biological Concepts   ENV 130   The Environment *or* ENV 131
BIO   150   Biology   ENV 150   The Visible Universe
CHE 120   Principles of Chemistry   PHY 120   Principles of Physics
CHE 150   Chemistry I   PHY 240   Physics I

ORIENTATION   **CREDITS - 1**
ORI   100   College Success Strategies* *or* ORI 101 (Course must be taken during first term of enrollment.)

SOCIAL SCIENCES   **CREDITS - 6**
Choose TWO of the following courses:
ANT 135   Human Evolution: Physical,   HIS   130   Introduction to Contemporary History
                 Anthropology & Archaeology   POS 130   American Government
ANT 140   Cultural Anthropology   POS 135   State & Local Government
HIS   110   History of the United States to 1877   PSY 120   Interpersonal Relations & Communication
HIS   115   History of the United States Since 1865 PSY 130   General Psychology
HIS   120   Western Civilization: To 1600   SOC 125   The Individual & Society
HIS   125   Western Civilization: 1600-1945   SOC 130   Sociology

ELECTIVE REQUIREMENTS
CREDITS - 36 to 38

A minimum of 60 credits is required to fulfill the graduation requirements for the Associate in General Studies degree program. Please see your academic advisor at least two terms prior to graduation to determine whether you meet the graduation requirements for your major.

* *Any transfer student who has completed a minimum of 24 credits with a GPA of 2.0 or better from an accredited college or univeristy may choose to have the College Success Strategies class waived.*

Academic Divisions

Five academic divisions come together to make up Reading Area Community College. Although each division has its own Chair and Faculty, they interact daily and work together closely. Students will typically take some courses from each division. The five divisions are listed below.

BUSINESS DIVISION

Division Chair: Linda Bell
Division Office: Penn Hall, Room 218

The Business Division offers programs in Accounting, Computers, Management, Office Technologies, and Travel & Tourism. Each curriculum combines hands-on problem-solving experiences built upon a solid foundation of applied theory, giving students the best possible background for pursuing a career or transferring to a four-year program.

ASSOCIATE IN ARTS DEGREE
Transfer Programs
Accounting
Business Administration
Business Education
Information Technology
Industrial Administration

ASSOCIATE IN APPLIED SCIENCE DEGREE
Career Programs
Accounting
Administrative Assistant
Banking Technology
Business Management
    Management Concentration
    Human Resources Management Concentration
    Operations Management Concentration
    Retail Management Concentration
    Small Business Management Concentration
Culinary Arts
Executive Secretary
Information Technology
    Networking Concentration
    Programming Concentration
    User Support Concentration
    Website Development Concentration

Legal Secretary
Medical Secretary
Word Processing Specialist

CERTIFICATE OF SPECIALIZATION
College Credit Programs
Accounting
Administrative Assistant
Advanced Secretarial Skills
Banking Technology
Banking Technology - Office Technology in Banking
Basic Clerical Skills
Basic Secretarial Skills
Bookkeeping/Accounting
Business Management
Culinary Arts (Certified Cook)
Human Resources Management
Information Technology
    Networking Concentration
    Programming Concentration
    User Support Concentration
    Website Development Concentration
Legal Secretary
Medical Secretary
Retail Management
Small Business Management

Diploma Programs
Advanced Secretarial Skills
Basic Secretarial Skills
Legal Secretarial Skills
Medical Secretarial Skills
Medical Transcriptionist

DIVISION OF HEALTH PROFESSIONS

Division Chair: Amelia Capotosta
Division Office: Penn Hall, Room 420

The Health Professions Division offers career preparation in a variety of programs. The Nursing (R.N.) program is a career program with formal articulation agreements with other colleges and universities which enables students to pursue a baccalaureate degree in nursing. An A.A.S. degree Respiratory Care program and post-associate degree Respiratory Therapist program are offered for entry-level practice and career advancement. All of the Health Professions programs have a strong science base and clinical component in addition to theory to prepare students for the registry or licensing examinations in their field.

ASSOCIATE IN APPLIED SCIENCE DEGREE
Career Programs
Medical Laboratory Technician (M.L.T.)
Nursing (R.N.)
Respiratory Care (C.R.T.)

CERTIFICATE OF SPECIALIZATION
College Credit Programs
Practical Nursing (L.P.N.)
Respiratory Therapist (R.R.T.)

ASSOCIATE IN ARTS DEGREE
Transfer Program
Medical Technology

SOCIAL SCIENCE DIVISION

Division Chair: Cindy Seaman
Division Office - Berks Hall, Room 500

The Social Sciences/Human Services Division offers programs for career preparation and transfer as well as courses which supplement programs offered by other Divisions. Programs of career study prepare students for work in both public and private agencies which provide an expanding range of human services. College transfer programs prepare students to go on to four-year colleges and universities to pursue more extensive training in the Social Sciences and Human Services fields.

ASSOCIATE IN ARTS DEGREE
Transfer Programs
Addictions Studies
Education
    Elementary Education Concentration
    Secondary Education Concentration
    Special Education Concentration
Pre-Law/Public Administration
Psychology
Social Work
Sociology/Anthropology

ASSOCIATE IN APPLIED SCIENCE DEGREE
Career Programs
Early Childhood Education Teaching
Early Childhood Education Management
Educational Technology
Human Services Worker
Criminal Justice/Law Enforcement Administration
Special Education Paraeducator

CERTIFICATE OF SPECIALIZATION
College Credit Programs
Professional Childcare
Early Childhood Director

Diploma Program
Early Childhood Diploma

SCIENCE AND MATH DIVISION

Division Chair: Ellen Schwartz
Division Office: Berks Hall, Room 402

The Science and Mathematics Division offers programs in the natural sciences and the technologies. College transfer programs and career programs provide students with a wide range of choices. The acquisition of employable skills and the development of an appropriate academic base for further study allow the student flexibility in the development of career goals.

ASSOCIATE IN ARTS DEGREE
Transfer Programs
Biological Sciences/Preprofessional
    Biology Concentration
    Pharmacy Concentration
    Pre-Med., Dental, Veterinary, Chiropractic Con.
Chemistry
Environmental Science Technology
Laboratory Science - Nanoscience Technology
    2+2+2 Millersville University
    2+2+2 Penn State Berks
Mechanical Engineering Technology

ASSOCIATE IN APPLIED SCIENCE DEGREE
Career Programs
Electric Utility Technology
Heating, Ventilation, Air Conditioning & Refrigeration
Industrial Maintenance Technician
Laboratory Science
    Laboratory Technician Concentration
    Nanoscience Concentration
Machine Tool Technology
Professional Pilot

CERTIFICATE OF SPECIALIZATION
College Credit Programs
Heating, Ventilation, Air Conditioning & Refrigeration
Laboratory Assistant
Laboratory Science - Nanoscience Technology
Machine Tool Technology

HUMANITIES DIVISION

Division Chair: Helen Peemoeller
Division Office: Yocum Library, Room 108

The Humanities Division offers a flexible program of study preparing students for transfer to a four-year institution's Humanities, Liberal Arts, or Fine Arts program. The Division also provides communications and humanities elective courses that are essential to the general education core and, therefore, to the graduation requirements of all programs offered at Reading Area Community College.

ASSOCIATE IN ARTS DEGREE
Transfer Programs
Communications Transfer
Humanities Transfer
Liberal Arts Transfer

ACCOUNTING

Associate in Applied Science Degree

The Accounting program is designed to prepare students for a career in public accounting, in industry, or as self-employed business people. Graduates of this program will have a well-rounded background in all major areas within accounting, preparing them for positions as public accounting paraprofessionals, cost accountants, tax preparers, general accounting clerks, or office managers. **College credit may be granted through Tech Prep articulation agreements between RACC and approved secondary schools.**

Upon successful completion of this program, the student should be able to:

- Utilize a personal computer to prepare documents using word processing, spreadsheets and database software and to perform basic navigation of the Internet.
- Apply economic theory to solve social, political, financial, and business problems.
- Demonstrate effective communication skills in writing and speaking in a business environment.
- Apply math operations to solve fundamental business problems.
- Utilize business management principles to analyze problems and make decisions.
- Prepare financial statements in accordance with generally accepted accounting principles and evaluate the results by performing basic financial statement analysis.
- Calculate product costs and break-even point for manufacturing companies and prepare operational budgets using both variable and absorption costing methods.
- Perform the steps in the accounting cycle both manually and using computerized general ledger software.
- Apply accounting theory to complex business transactions.
- Evaluate the internal control goals of various accounting information systems and recommend appropriate control plans to ensure the accomplishment of organizational goals.
- Prepare tax returns and conduct research utilizing the Internal Revenue Code.
- Apply the law to recognize legal implications of business and personal transactions.

Required Program of Study

First Term

ACC	105	Financial Accounting	3
BUS	100	Introduction to Business	3
BUS	110	Business Mathematics	3
IFT	110	Microcomputer Applications	3
ORI	100	College Success Strategies	1
			13

Second Term

ACC	110	Managerial Accounting	3
COM	121	English Composition	3
MGT	100	Principles of Management	3
MAT	150	Foundations of Math	3
			12

Third Term

ACC	125	Accounting Principles I	3
ACC	220	Accounting Information Systems	3
BUS	106	Business Communications	3
HUM	- -	Humanities Elective	3
			12

Fourth Term

ACC	205	Intermediate Accounting I	3
BUS	200	Macroeconomics	3
ENV	130	Environment	3
			9

Fifth Term

ACC	206	Intermediate Accounting II	3
ACC	230	Federal Taxes	3
BUS	201	Microeconomics	3
			9

Sixth Term

- -	- -	Business Elective	3
BUS	230	Business Law	3
SOC	125	Individual & Society	3
			9

Total Credit Hours Required for the Program	64

The following courses qualify as a Business Elective: ACC 210, ACC 235, ACC 240, ACC 290 with CAR 105, BUS 220, MAT 210, MGT 230.

This program integrates several computerized software packages to give students exposure to various business technologies.

ACCOUNTING TRANSFER PROGRAM

Associate in Arts Degree

The Accounting Transfer program is designed to prepare students to enter baccalaureate programs in accounting on the junior level.

Upon successful completion of this program, the student should be able to:

- Prepare financial statements in accordance with generally accepted accounting principles and evaluate the results by performing basic financial statement analysis.
- Utilize a personal computer to prepare documents using word processing, spreadsheet and database software and to perform basic navigation of the Internet.
- Utilize business principles to analyze problems and make decisions.
- Apply economic theory to analyze social, political, financial and business problems.
- Transfer to an accredited college or university.

See General Education Requirements

Major Requirements

ACC	105	Financial Accounting	3
BUS	100	Introduction to Business	3
BUS	200	Macroeconomics	3
BUS	201	Microeconomics	3
IFT	110	Microcomputer Applications	3
			15

Suggested Electives

Courses selected as electives will depend upon the institution to which you will transfer. It is essential that you consult with a Faculty Advisor for assistance in selecting elective courses. However, it is the responsibility of students to meet with an admissions representative from the four-year institution to determine its transfer policies.

Minimum Credit Hours Required for the Program	60

ACCOUNTING CERTIFICATE
College Credit Certificate

The Accounting certificate program is designed for accountants who are working in the field and would like to expand their knowledge of all areas of accounting, as well as for students who currently have a bachelor's degree and desire a change of careers. The program provides sufficient accounting credits to meet the requirements for both the CPA and CMA examinations.

Upon successful completion of this program, the student should be able to:
- Utilize a personal computer to prepare documents using word processing, spreadsheets and database software and to perform basic navigation of the Internet.
- Demonstrate effective communication skills in writing and speaking in a business environment.
- Prepare financial statements in accordance with generally accepted accounting principles and evaluate the results by performing basic financial statement analysis.
- Calculate product costs and break-even point for manufacturing companies and prepare operational budgets using both variable and absorption costing methods.
- Perform the steps in the accounting cycle both manually and using computerized general ledger software.
- Evaluate the internal control goals of various accounting information systems and recommend appropriate control plans to ensure the accomplishment of organizational goals.
- Prepare tax returns and conduct research utilizing the Internal Revenue Code.
- Apply generally accepted auditing standards in the planning and implementation of an audit by an independent auditor.
- Apply the law to recognize the legal implications of business and personal transactions.

Required Program of Study

ACC	105	Financial Accounting	3
ACC	110	Managerial Accounting	3
ACC	125	Accounting Principles I	3
ACC	205	Intermediate Accounting I	3
ACC	206	Intermediate Accounting II	3
ACC	220	Accounting Information Systems	3
ACC	230	Federal Taxes	3
ACC	235	Auditing	3
BUS	230	Business Law	3
IFT	110	Microcomputer Applications	3
- -	- -	Business Elective (see list below)	3
		Total Credit Hours Required for the Certificate	33

Additional prerequisites may be necessary for some courses and are found in the Course Descriptions section of this catalog. Students must confer with their academic advisor when selecting an elective. These courses qualify as Business Electives: ACC 210, ACC 240, IFT 120, MGT 230. PLEASE SEE YOUR ADVISOR FOR ASSISTANCE REGARDING THE TERM IN WHICH THESE COURSES ARE OFFERED.

ADDICTIONS STUDIES TRANSFER PROGRAM
Associate in Arts Degree

This program is designed to prepare the student to enter a baccalaureate program in Addictions on the junior level.

See General Education Requirements

Courses selected as electives will depend upon the institution to which you will transfer. It is essential that students consult with a Faculty Advisor for assistance in selecting elective courses. However, it is the responsibility of students to meet with an admissions representative from the four-year institution to determine its transfer policies.

Upon successful completion of this program, the student should be able to:
- Relate addiction theory as applied to the human service worker.
- Apply the psychological theories that are pertinent to the causes of addictive behavior and its treatment.
- Apply the sociological theories that explain the causes of addictive behavior and its treatment.
- Analyze the sociobiological basis of addictive conduct and its implications for assessment and treatment of substance abuse.
- Identify the pertinent laws that regulate controlled substances and address prevention, prosecution, and treatment.
- Analyze the pharmacological and physiological factors that are involved in chemical dependence.
- Identify symptoms, signs, and personal history background of the addicted individual.
- Show counseling skills in individual and group approaches to help chemically dependent helpers.
- Create a case management system including roles, duties, and functions in order to serve the organizational purposes of a human service organization.
- Transfer to an accredited college/university.

Major Requirements

SOC	225	Drugs & Alcohol in American Society	3
PSY	232	The Addictive Processes	3
PSY	120	Interpersonal Relations & Communication	3
PSY	130	General Psychology	3
	or	SOC 130 Sociology	3
SOC	210	Social Problems	3
			15

Suggested Electives

ANT 135	CHE 220	POS 135	PSY 220	SOC 130
ANT 140	HMS 110	PSY 130	PSY 225	SOC 220
BIO 120	HMS 240	PSY 210	PSY 230	SPA 101
CHE 120	LAW 150	PSY 212	PSY 235	SPA 102
CHE 150	MAT 210	PSY 214	PSY 240	SST 110
CHE 155	POS 130	PSY 216	SOC 125	

ADMINISTRATIVE ASSISTANT
Associate in Applied Science Degree

The Administrative Assistant program is designed for students with secretarial experience who wish to broaden their knowledge of business, intensify previously acquired secretarial skills, prepare for career advancement into managerial, supervisory, or administrative positions, and gain necessary background to sit for the Certified Professional Secretary Examination. Prerequisite: advanced secretarial skills.

Upon successful completion of this program, the student should be able to:
- Demonstrate effective communication skills in writing and speaking in a business environment.

- Apply math operations to solve fundamentals business problems.
- Utilize business and management terminology and principles to analyze problems and make decisions.
- Apply basic language skills associated with the parts of speech, sentence formations, numerical expression, capitalization, punctuation and word division rules to business correspondence.
- Apply principles of supervision and management in order to obtain maximum productivity from computerized systems in both traditional and automated offices, with appropriate emphasis on people, procedures and equipment.
- Transcribe from various kinds of original communication, such as handwritten copy, printed copy and voice-recorded dictation.
- Proofread and edit typed/keyed copy, including transcription of machine dictation, with a high degree of accuracy and correctness.
- Use word processing, spreadsheet, database, presentation and Internet skills to complete office tasks.
- Demonstrate speedwriting skills to take notes from oral dictation and produce mailable copy.
- Recognize the changing nature of technology and adapt to new equipment and procedures while retaining the most appropriate traditional office practices.
- Work independently, with, others or in self-directed work teams to demonstrate effective interpersonal and problem-solving skills, attitudes and work habits that contribute to organizational goals.
- Prepare financial statements in accordance with generally accepted accounting principles and evaluate the results by performing basic financial statement analysis.
- Calculate product costs and break-even point for manufacturing companies and prepare operational budgets using both variable and absorption costing methods.
- Apply economic theory to analyze social, political, financial and business problems.
- Develop a marketing plan using the fundamental elements of the marketing mix.
- Apply the law to recognize legal implications of business and personal transactions.

Required Program of Study

First Term

BUS	100	Introduction to Business	3
BUS	105	Business English	3
BUS	110	Business Mathematics	3
ORI	100	College Success Strategies	1
			10

Second Term

MGT	140	Administrative Office Management	3
COM	121	English Composition	3
ENV	130	The Environment	3
HUM	--	Humanities Elective	3
			12

Third Term

BUS	106	Business Communications	3
OFT	120	Machine Dictation and Transcription	3
--	--	Business Elective (see list below)	3
			9

Fourth Term

ACC	105	Financial Accounting	3
BUS	200	Macroeconomics	3
OFT	213	Word Processing I	3
SOC	125	The Individual and Society	3
			12

Fifth Term

ACC	110	Managerial Accounting	3
BUS	201	Microeconomics	3
OFT	210	Speedwriting I	3
OFT	214	Word Processing II	3
			12

Sixth Term

BUS	220	Principles of Marketing	3
BUS	230	Business Law	3
MGT	100	Principles of Management	3
OFT	221	Executive Office Procedures	3
			12

Total Credit Hours Required for the Program   67

The following courses qualify as a Business Elective: OFT 211, OFT 220, MGT 210 or any BUS of MGT course not listed in the program.

ADMINISTRATIVE ASSISTANT

College Credit Certificate

The Administrative Assistant certificate program is designed for students with secretarial experience who wish to broaden their knowledge of business, intensify previously acquired secretarial skills, prepare for career advancement into managerial, supervisory or administrative positions and gain necessary background to sit for the Certified Professional Secretary Examination. All course work may later be applied to an Associate in Applied Science degree, if desired.Prior secretarial experience is required for entry to this program.

Upon successful completion of this programs, the student should be able to:
- Utilize business and management principles to analyze problems and make decisions.
- Apply economic theory to analyze social, political, financial and business problems.
- Apply math operations to solve fundamentals business problems.
- Apply basic language skills associated with the parts of speech, sentence formations, numerical expression, capitalization, punctuation and word division rules to business correspondence.
- Use word processing, spreadsheet, database, presentation and Internet skills to complete office tasks.
- Apply principles of supervision and management in order to obtain maximum productivity from computerized systems in both traditional and automated offices, with appropriate emphasis on people, procedures and equipment.
- Demonstrate speedwriting skills to take notes from oral dictation and produce mailable copy.
- Demonstrate effective communications skills in writing and speaking in a business environment.
- Prepare financial statements in accordance with generally accepted accounting principles and evaluate the results by performing basic financial statement analysis.
- Calculate product costs and break-even point for manufacturing companies and prepare operational budgets using both variable and absorption costing methods.
- Apply the law to recognize legal implications of business and personal transactions.

Required Program of Study

Summer

BUS	100	Introduction to Business	3
ORI	100	College Success Strategies	1
BUS	110	Business Mathematics	3

COM	121	English Composition	3
			10

First Term

OFT	212	Office Procedures	3
OFT	213	Word Processing I	3
BUS	105	Business English	3
			9

Second Term

ACC	105	Financial Accounting	3
MGT	140	Administrative Office Management	3
OFT	210	Speedwriting I	3
BUS	200	Macroeconomics	
		or	3
BUS	201	Microeconomics	
			12

Third Term

ACC	110	Managerial Accounting	3
BUS	106	Business Communications	3
BUS	230	Business Law	3
			9

Total Credit Hours Required for the Certificate   40

ADVANCED SECRETARIAL SKILLS

College Credit Certificate

The Advanced Secretarial Skills certificate program is designed to provide graduates with the competencies necessary to obtain secretarial employment which requires higher-level skills. A student entering this program should possess keyboarding skills (recommend at least 50 wpm). The student may later apply all course work to an Associate in Applied Science degree, if desired.

Upon successful completion of this program, the student should be able to:

- Demonstrate effective communication skills in writing and speaking in a business environment.
- Apply basic language skills associated with the parts of speech, sentence formations, numerical expression, capitalization, punctuation and word division rules to business correspondence.
- Use word processing, spreadsheet, database, presentation and Internet skills to complete office tasks.
- Apply math operations to solve fundamentals business problems.
- Apply principles of supervision and management in order to obtain maximum productivity from computerized systems in both traditional and automated offices, with appropriate emphasis on people, procedures and equipment.
- Develop speedwriting skills to take notes from oral dictation and produce mailable copy.
- Work independently, with, others or in self-directed work teams to demonstrate effective interpersonal and problem-solving skills, attitudes and work habits that contribute to organizational goals.
- Proofread and edit typed/keyed copy, including transcription of machine dictation, with a high degree of accuracy and correctness.
- Transcribe from various kinds of original communication, such as handwritten copy, printed copy and voice-recorded dictation.
- Recognize the changing nature of technology and adapt to new equipment and procedures while retaining the most appropriate traditional office practices.

Required Program of Study

First Term

BUS	105	Business English	3
BUS	110	Business Mathematics	3
OFT	213	Word Processing I	3
ORI	100	College Success Strategies	1
			10

Second Term

MGT	140	Administrative Office Management	3
OFT	214	Word Processing II	3
COM	121	English Composition	3
OFT	210	Speedwriting I	3
			12

THIRD TERM

BUS	106	Business Communications	3
OFT	120	Machine Dictation & Transcription	3
OFT	251	Word Processing Procedures	3
			9

Total Credit Hours Required for the Certificate   31

ADVANCED SECRETARIAL SKILLS

Office Technology Diploma

The Advanced Secretarial Skills Diploma is designed to provide graduates with the competencies necessary to obtain secretarial employment which requires higher-level skills. A student entering this program should possess keyboarding skills; a minimum speed of 50 words per minute is recommended.

Upon successful completion of this program, the student should be able to:

- Use word processing, spreadsheet, database, presentation and Internet skills to complete office tasks.
- Apply basic language skills associated with the parts of speech, sentence formations, numerical expression, capitalization, punctuation and word division rules to business correspondence.
- Demonstrate speedwriting skills to take notes from oral dictation and produce mailable copy.
- Proofread and edit typed/keyed copy, including transcription of machine dictation, with a high degree of accuracy and correctness.
- Transcribe from various kinds of original communication, such as handwritten copy, printed copy and voice-recorded dictation.
- Work independently, with, others or in self-directed work teams to demonstrate effective interpersonal and problem-solving skills, attitudes and work habits that contribute to organizational goals.
- Recognize the changing nature of technology and adapt to new equipment and procedures while retaining the most appropriate traditional office practices.

Required Program of Study

First Session

OFT	213	Word Processing I	3
BUS	105	Business English	3
			6

Second Session

OFT	214	Word Processing II	3
OFT	210	Speedwriting I	3
			6

Third Session

OFT	120	Machine Dictation and Transcription	3
MGT	140	Administrative Office Management	3
			6

Fourth Session

OFT	211	Speedwriting II	3
OFT	251	Word Processing Procedures	3
			6

Total Credit Hours Required for the Diploma   24

BANKING TECHNOLOGY

Associate in Applied Science Degree

This program is designed to prepare students for a career in a financial institution. Graduates of this program will have a well-rounded background in all areas of the banking industry. They will be prepared for positions such as branch managers, assistant branch managers, loan officers, mid-management level executives and as management trainees throughout different areas of a financial institution. For more information, contact the Banking Program Director of Education.

Upon successful completion of this program, the student should be able to:⌐ Calculate product costs and break-even point for manufacturing companies and prepare operational budgets using both variable and absorption costing methods.

- Demonstrate an awareness of how full-service commercial banking affects the economy, community, businesses and individuals.
- Apply economic terminology and principles to the business cycle and business organization.
- Compare and contrast economic systems as they relate to the fundamental concepts of supply and demand.
- Prepare financial statements in accordance with generally accepted accounting principles with an emphasis on the interpretation and analysis of the financial statement.
- Identify components of the consumer installment credit market.
- Describe various loan products.
- Trace the lending process.
- Apply credit math and loan pricing principles.
- Explain the functions of the loan interview and credit investigation.
- Describe how the borrower's financing needs and business type affect the structuring of a loan.
- Utilize a personal computer to design, save, and modify database structures through the use of several software programs.
- Identify the sources and applications of banking law.
- Distinguish between torts and crimes and how they relate to banking situations.
- Describe real and personal properties and their application to banking.
- Develop and formulate a master marketing plan by interpreting consumer motivation and buying behavior through situation analysis focused upon market segment.
- Develop the skills necessary to conduct a comprehensive and effective financial analysis of a business borrower in order to assess repayment capacity.
- Associate the concept of money supply and the role the bank plays as a money creator and participant in the nation's payment mechanism.
- Utilize business and management principles to analyze problems and make decisions.
- Apply math operations to solve fundamental business problems.
- Demonstrate effective communication skills in writing and speaking in a business environment.

General Education Requirements - 19 credits
Major Requirements

ACC	110	Managerial Accounting	3
BNK	100	Principles of Banking (1370)	3
BNK	105	Economics for Bankers (2310)	3
BNK	140	Accounting I (1000)	3
BNK	150	Consumer Lending (7008)	
	or	BNK 155 Commercial Lending (6350)	3
BNK	153	Microcomputer Applications in Banking (2090)	3
BNK	226	Law & Banking: Principles (3660)	3
BNK	228	Marketing for Bankers (7740)	3
BNK	230	Analyzing Financial Statements (6920)	3
BNK	242	Money & Banking (1350)	3
BUS	100	Introduction to Business	3
MGT	100	Principles of Management	3
- - -	- - -	Banking Electives**	6
			42

**The following courses qualify as Banking Electives: ACC 210, BNK 115 (3670), BNK 120 (8250), BNK 125 (8325), BNK 150 (7008), BNK 155 (6350), BNK 210 (4310), BNK 220 (7110), BNK 222 (7820), MGT 200.

Total Credit Hours Required for the Program   61

BANKING TECHNOLOGY

College Credit Certificate

The Banking Technology certificate program is designed to provide students with skills that are needed to qualify for positions within the banking industry including tellers, head-tellers, customer service representatives, accounting clerks and credit administration clerks. All course work may later be applied to the Banking Technology A.A.S. degree.

Upon successful completion of this program, the student should be able to:
- Calculate product costs and break-even point for manufacturing companies and prepare operational budgets using both variable and absorption costing methods.
- Demonstrate an awareness of how full-service commercial banking affects the economy, community, businesses and individuals.
- Apply economic theory to analyze social, political, financial, and business problems.
- Prepare financial statements in accordance with generally accepted accounting principles with an emphasis on the interpretation and analysis of the financial statement.
- Identify components of the consumer installment credit market.
- Describe various loan products.
- Trace the lending process.
- Apply credit math and loan pricing principles.
- Explain the functions of the loan interview and credit investigation.
- Describe how the borrower's financing needs and business type affect the structuring of a loan.
- Utilize a personal computer to design, save, and modify database structures through the use of several software programs.
- Identify the sources and applications of banking law.
- Distinguish between torts and crimes and how they relate to banking situations.
- Describe real and personal properties and their application to banking.
- Develop and formulate a master marketing plan by interpreting consumer motivation and buying behavior

through situation analysis focused upon market segment. Develop the skills necessary to conduct a comprehensive and effective financial analysis of a business borrower in order to assess repayment capacity.

l Associate the concept of money supply and the role the bank plays as a money creator and participant in the nation's payment mechanism.

l Utilize business and management principles to analyze problems and make decisions.

Required Program of Study

ACC	110	Managerial Accounting	3
BNK	100	Principles of Banking (1370)	3
BNK	105	Economics for Bankers (2310)	3
BNK	140	Accounting I (1000)	3
BNK	150	Consumer Lending (7008)	
	or	BNK 155 Commercial Lending (6350)	3
BNK	153	Microcomputer Applications in Banking (2090)	3
BNK	226	Law & Banking: Principles (3660)	3
BNK	228	Marketing for Bankers (7740)	3
BNK	230	Analyzing Financial Statements (6920)	3
BNK	242	Money & Banking (1350)	3
MGT	100	Principles of Management	3

Total Credit Hours Required for this Certificate   33

BANKING TECHNOLOGY
Office Technology in Banking
College Credit Certificate
The Banking Technology, Office Technology in Banking certificate is designed to provide students with skills needed to qualify for administrative, secretarial, and clerical positions in the banking industry.

Upon successful completion of this program, the student should be able to:
• Demonstrate an awareness of how full-service commercial banking affects the economy, community, businesses, and individuals.
• Demonstrate effective oral and written communication skills with an emphasis toward the business environment.
• Utilize a personal computer to design, save, and modify database structures through the use of several software programs.
• Apply math operations to solve fundamental business problems.
• Utilize business and management principles to analyze problems and make decisions.
• Apply principles of supervision to obtain maximum productivity from computerized systems in both traditional and automated offices, with appropriate emphasis on people, procedures, and equipment.
• Use word processing, spreadsheet, database, presentation, and Internet skills to complete office tasks.

Required Program of Study

BNK	100	Principles of Banking (1370)	3
BNK	109	Business English (2602)	3
BNK	153	Microcomputer Applications in Banking (2090)	3
BUS	110	Business Mathematics	3
OFT	213	Word Processing I	3
BUS	100	Introduction to Business	3
MGT	140	Administrative Office Management	3
COM	121	English Composition	3

BUS	106	Business Communications		3
- -	- -	Banking (BNK) Electives*		3
- -	- -	Office Technology Electives**		6

Total Credit Hours Required for this Certificate   (34)   36

*The following courses qualify as Banking Electives:
  BNK 105 (2310), BNK 139 (1002), BNK 140 (1000), BNK 185 (3130), BNK 226 (3660), BNK 228 (7740).
**The following courses qualify as Office Technology Electives:
  OFT 110, OFT 111, OFT 112, OFT 120, OFT 210, OFT 211, OFT 212.

BASIC CLERICAL SKILLS
College Credit Certificate
The Basic Clerical Skills certificate program is designed to provide graduates with the competencies necessary to obtain clerical employment which requires basic skills. The student may later apply all course work to an Associate in Applied Science degree, if desired.

Upon successful completion of this program, the students should be able to:
• Demonstrate effective communication skills in writing and speaking in a business environment.
• Apply basic language skills associated with the parts of speech, sentence formations, numerical expression, capitalization, punctuation, and word division rules to business correspondence.
• Demonstrate proficiency in keyboarding of business letters, memos, reports, and tables at a high level of speed and accuracy.
• Utilize a personal computer to prepare documents using word processing, spreadsheet, and database software and the Internet.
• Proofread and edit typed/keyed copy, including transcription of machine dictation, with a high degree of accuracy and correctness.
• Transcribe from various kinds of original communication, such as handwritten copy, printed copy, and voice-recorded dictation.
• Apply math operations to solve fundamental business problems.

Required Program of Study
First Term

BUS	105	Business English	3
BUS	110	Business Mathematics	3
OFT	110	Keyboarding I	3
ORI	100	College Success Strategies	1
			10

Second Term

IFT	110	Microcomputer Applications	3
OFT	111	Keyboarding II	3
COM	121	English Composition	3
			9

Third Term

BUS	106	Business Communications	3
OFT	112	Keyboarding III	3
OFT	120	Machine Dictation & Transcription	3
- -	- -	Business Elective	3
			12

Total Credit Hours Required for the Certificate   31

Second Term

IFT	110	Microcomputer Applications	3
COM	121	English Composition	3
OFT	111	Keyboarding II	3
OFT	210	Speedwriting I	3
			12

Third Term

BUS	106	Business Communications	3
OFT	112	Keyboarding III	3
OFT	120	Machine Dictation & Transcription	3
OFT	211	Speedwriting II	3
			12

Total Credit Hours Required for the Certificate   34

BASIC SECRETARIAL SKILLS (120)

Office Technology Diploma

The Basic Secretarial Diploma is designed to provide graduates with the competencies necessary to obtain secretarial employment which requires foundation-level skills.

Upon successful completion of this program, the students should be able to:
- Apply basic language skills associated with the parts of speech, sentence formations, numerical expression, capitalization, punctuation, and word division rules to business correspondence.
- Demonstrate proficiency in keyboarding of business letters, memos, reports, and tables at a high degree of speed and accuracy.
- Demonstrate speedwriting skills to take notes from oral dictation and produce mailable copy.
- Proofread and edit typed/keyed copy, including transcription of machine dictation, with a high degree of accuracy and correctness.
- Transcribe from various kinds of original communication, such as handwritten copy, printed copy, and voice-recorded dictation.
- Utilize a personal computer to prepare documents using word processing, spreadsheet and database software and the Internet.

Required Program of Study

First Session

BUS	105	Business English	3
OFT	110	Keyboarding I	3
			6

Second Session

OFT	210	Speedwriting I	3
OFT	111	Keyboarding II	3
			6

Third Session

OFT	120	Machine Dictation and Transcription	3
OFT	112	Keyboarding III	3
			6

Fourth Session

IFT	110	Microcomputer Applications	3
OFT	211	Speedwriting II	3
			6

Total Credit Hours Required for the Diploma   24

BASIC SECRETARIAL SKILLS

College Credit Certificate

The Basic Secretarial Skills certificate program is designed to provide graduates with the competencies necessary to obtain secretarial employment which requires foundation-level skills. The student may later apply all course work to an Associate in Applied Science degree, if desired.

Upon successful completion of this program, the students should be able to:
- Demonstrate effective communication skills in writing and speaking in a business environment.
- Apply basic language skills associated with the parts of speech, sentence formations, numerical expression, capitalization, punctuation, and word division rules to business correspondence.
- Demonstrate proficiency in keyboarding of business letters, memos, reports, and tables at a high level of speed and accuracy.
- Utilize a personal computer to prepare documents using word processing, spreadsheet, and database software and the Internet.
- Demonstrate speedwriting skills to take notes from oral dictation and produce mailable
- Proofread and edit typed/keyed copy, including transcription of machine dictation, with a high degree of accuracy and correctness.
- Transcribe from various kinds of original communication, such as handwritten copy, printed copy, and voice-recorded dictation.
- Apply math operations to solve fundamental business problems.

Required Program of Study

First Term

BUS	105	Business English	3
BUS	110	Business Mathematics	3
OFT	110	Keyboarding I	3
ORI	100	College Success Strategies	1
			10

BIOLOGICAL SCIENCES/ PREPROFESSIONAL TRANSFER PROGRAM

Associate in Arts Degree

This program is designed to prepare the student to enter a baccalaureate program in biological science or preprofessional curricula on the junior level.

Upon successful completion of this program, the student should be able to:
- Demonstrate effective oral and written communication skills in the expression of scientific concepts.
- Apply mathematical methods to scientific problems.
- Apply basic scientific principles and concepts in the solution of problems and laboratory experiments.
- Demonstrate an ability to collect, organize, analyze, evaluate and present data.
- Demonstrate an ability to retrieve data and search relevant literature.
- Demonstrate the ability to use specific scientific apparatus and instrumentation.
- Explain basic scientific concepts related to the behavior of cells at the molecular and organismic levels.
- Transfer to an accredited college or university.

See General Education Requirements

Major Requirements

BIO	150	Biology I	4
CHE	150	Chemistry I	4
CHE	155	Chemistry II	4
MAT	180	Precalculus	3
			15

Biology Concentration
Suggested Electives

BIO	155 or (BIO 205 and BIO 210)	MAT	221
BIO	280	MAT	222
ENV	170	PHY	240
MAT	210	PHY	245
MAT	220		

Pharmacy Concentration
Suggested Electives

BIO	155 or (BIO 205 and BIO 210)	MAT	221
BIO	280	MAT	222
BUS	200	PHY	240
MAT	220	PHY	245

Pre-Medical, Pre-Dental, Pre-Veterinary, & Pre-Chiropractic Science Concentration
Suggested Electives

BIO	155 or (BIO 205 and BIO 210)	MAT	220
BIO	250	MAT	221
BIO	255	MAT	222
BIO	280	PHY	240
MAT	210	PHY	245

Courses selected as electives will depend upon the institution to which you will transfer. It is essential that you meet with a Faculty Advisor for assistance in selecting courses. However, it is the responsibility of students to meet with an admissions representative from the four-year institution to determine its transfer policies.

Minimum Credit Hours Required for the Degree   60

BOOKKEEPING/ACCOUNTING

College Credit Certificate

The Bookkeeping/Accounting certificate program is designed for students who would like to work in the area of accounting as accounts receivable, accounts payable, payroll or billing clerks or as bookkeepers for small businesses. All course work may later be applied to an Associate in Applied Science degree if the student desires.

Upon successful completion of this program, the student should be able to:
- Utilize a personal computer to prepare documents using word processing, spreadsheets and database software and to perform basic navigation of the Internet.
- Demonstrate effective communication skills in writing and speaking in a business environment.
- Apply math operations to solve fundamental business problems.
- Utilize business management principles to analyze problems and make decisions.
- Prepare financial statements in accordance with generally accepted accounting principles and evaluate the results by performing basic financial statement analysis.
- Calculate product costs and break-even point for manufacturing companies and prepare operational budgets using both variable and absorption costing methods.
- Perform the steps in the accounting cycle both manually and using computerized general ledger software.
- Evaluate the internal control goals of various accounting information systems and recommend appropriate control plans to ensure the accomplishment of organizational goals.
- Prepare payroll documents and related payroll tax returns.

Required Program of Study

First Term

ACC	105	Financial Accounting	3
BUS	100	Introduction to Business	3
BUS	110	Business Mathematics	3
IFT	110	Microcomputer Applications	3
ORI	100	College Success Strategies	1
			13

Second Term

ACC	110	Managerial Accounting	3
COM	121	English Composition	3
MGT	100	Principles of Management	3
			9

Third Term

ACC	125	Accounting Principles I	3
ACC	120	Payroll Accounting	1
ACC	220	Accounting Information Systems	3
BUS	106	Business Communications	3
			10

Total Credit Hours Required for the Certificate   32

BUSINESS ADMINISTRATION TRANSFER

Associate in Arts Degree

The Business Administration Transfer program is designed to prepare students to enter baccalaureate programs in Business Administration on the junior level.

Upon successful completion of this program, the student should be able to:
- Prepare financial statements in accordance with generally accepted accounting principles and evaluate the results by performing basic financial statement analysis.

- Utilize business principles to analyze problems and make decisions.
- Apply economic theory to analyze social, political, financial, and business problems.
- Utilize a personal computer to prepare documents using word processing, spreadsheet and database software and to perform basic navigation of the Internet.
- Transfer to an accredited college or university.

See General Education Requirements
Major Requirements

ACC	105	Financial Accounting	3
BUS	100	Introduction to Business	3
BUS	200	Macroeconomics	3
BUS	201	Microeconomics	3
IFT	110	Microcomputer Applications	3
			15

Suggested Electives

Courses selected as electives will depend upon the institution to which you will transfer. It is essential that you consult with a Faculty Advisor for assistance in selecting elective courses. However, it is the responsibility of students to meet with an admissions representative from the four-year institution to determine its transfer policies.

Minimum Credit Hours Required for the Program   60

BUSINESS EDUCATION TRANSFER

Associate in Arts Degree

The Business Education Transfer program is designed to prepare students to enter baccalaureate programs in Business Education on the junior level.

Upon successful completion of this program, the student should be able to:
- Prepare financial statements in accordance with generally accepted accounting principles and evaluate the results by performing basic financial statement analysis.
- Utilize business principles to analyze problems and make decisions.
- Apply economic theory to analyze social, political, financial, and business problems.
- Utilize a personal computer to prepare documents using word processing, spreadsheet and database software and to perform basic navigation of the Internet.
- Transfer to an accredited college or university.

See General Education Requirements
Major Requirements

ACC	105	Financial Accounting	3
	or	OFT 210 Speedwriting I	3
BUS	100	Introduction to Business	3
BUS	200	Macroeconomics	3
BUS	201	Microeconomics	3
IFT	110	Microcomputer Applications	3
			15

Suggested Electives

Courses selected as electives will depend upon the institution to which you will transfer. It is essential that you consult with a Faculty Advisor for assistance in selecting elective courses. However, it is the responsibility of students to meet with an admissions representative from the four-year institution to determine its transfer policies.

Minimum Credit Hours Required for the Program   60

BUSINESS MANAGEMENT
Management Concentration
Associate in Applied Science Degree

The Business Management program is designed to prepare graduates for careers in management. Students who complete the program are prepared for employment as office managers, mid-management level executives, and management trainees in programs such as those operated by banks, retail stores, and other types of business and industrial enterprises. Graduates will have had the opportunity to choose from a number of second-year courses to allow specialization.

Upon successful completion of this program, the student should be able to:
- Utilize business management principles to analyze problems and make decisions.
- Apply human resources management principles to analyze problems and make decisions concerning human resources.
- Apply supervision skills.
- Apply math operations to solve fundamental business problems.
- Utilize a personal computer to prepare documents using word processing, spreadsheet and database software, and to perform basic navigation of the Internet.
- Prepare financial statements in accordance with generally accepted accounting principles and evaluate the results by performing basic financial statement analysis.
- Calculate product costs and break-even point for manufacturing companies and prepare operational budgets using both variable and absorption costing methods.
- Demonstrate effective communication skills in writing and speaking in a business environment.
- Apply economic theory to analyze social, political, financial, and business problems.
- Utilize financial tools and techniques to maximize a firm's long-term value.
- Develop a marketing plan for a product, using the fundamental elements of the marketing mix.
- Apply the law to recognize potential legal implications of business and personal transactions.

Required Program of Study

First Term

BUS	100	Introduction to Business	3
BUS	110	Business Math	3
IFT	110	Microcomputer Applications	3
ORI	100	College Success Strategies	1
			10

Second Term

ACC	105	Financial Accounting	3
COM	121	English Composition	3
MAT	150	Foundation of Math	3
SOC	125	Individual & Society	3
			12

Third Term

ACC	110	Managerial Accounting	3
BUS	106	Business Communications	3
HUM	--	Humanities Elective	3
MGT	100	Principles of Management	3
			12

Fourth Term

BUS	200	Macroeconomics	3
ENV	130	The Environment	3
MGT	200	Human Resources Management	3
--	--	Business Elective	3
			12

Fifth Term

BUS	201	Microeconomics	3
MGT	210	Supervisory Management	3
--	--	Business Elective	3
			9

Sixth Term

ACC	210	Financial Management	3
BUS	220	Principles of Marketing	3
BUS	230	Business Law	3
--	--	Business Elective (see list below)	3
			12

Total Credit Hours Required for the Program   67

The following courses qualify as a Business Elective: ACC 220, ACC 230, BUS 210, IFT 120, MGT 220, MGT 230, MGT 240, MGT 250, MGT 255, MGT 260, MGT 290 with CAR 105, MGT 291. Your advisor may suggest and must approve other electives.

BUSINESS MANAGEMENT
Human Resources Management Concentration

Associate in Applied Science Degree

The Human Resources Management program is designed to prepare graduates for careers in human resources management. Students who complete the program are prepared for employment as assistants, generalists, and specialists in Human Resources departments, as well as benefits coordinators, training representatives, salary administrators, or employment representatives. Graduates will have had the opportunity to choose from a number of second-year courses to allow specialization.

Upon successful completion of the program, the student should be able to:
- Utilize business management principles to analyze problems and make decisions.
- Apply human resources management principles to analyze problems and make decisions concerning human resources.
- Design a system for the administration of wages and salaries.
- Apply supervision skills.
- Apply math operations to solve fundamental business problems.
- Utilize a personal computer to prepare documents using word processing, spreadsheet and database software and to perform basic navigation of the Internet.
- Prepare financial statements in accordance with generally accepted accounting principles and evaluate the results by performing basic financial statement analysis.
- Calculate product costs and break-even point for manufacturing companies and prepare operational budgets using both variable and absorption costing methods.
- Demonstrate effective communication skills in writing and speaking in a business environment.
- Apply economic theory to analyze social, political, financial, and business problems.
- Utilize financial tools and techniques to maximize a firm's long-term value.
- Develop a marketing plan for a product, using the fundamental elements of the marketing mix.
- Apply the law to recognize legal implications of business and personal transactions.

Required Program of Study

First Term

BUS	100	Introduction to Business	3
BUS	110	Business Math	3
IFT	110	Microcomputer Applications	3

ORI	100	College Success Strategies	1
			10

Second Term

ACC	105	Financial Accounting	3
COM	121	English Composition	3
MAT	150	Foundation of Math	3
SOC	125	Individual & Society	3
			12

Third Term

ACC	110	Managerial Accounting	3
BUS	106	Business Communications	3
HUM	--	Humanities Elective	3
MGT	100	Principles of Management	3
			12

Fourth Term

BUS	200	Macroeconomics	3
ENV	130	The Environment	3
MGT	200	Human Resources Management	3
--	--	Business Elective	3
			12

Fifth Term

BUS	201	Microeconomics	3
MGT	240	Compensation Management	3
MGT	210	Supervisory Management	3
			9

Sixth Term

ACC	210	Financial Management	3
BUS	220	Principles of Marketing	3
BUS	230	Business Law	3
--	--	Business Elective (see list below)	3
			12

Total Credit Hours Required for the Program   67

The following courses qualify as a Business Elective: ACC 220, ACC 230, BUS 210, IFT 120, MGT 220, MGT 230, MGT 250, MGT 255, MGT 260, MGT 290 with CAR 105, MGT 291. Your advisor may suggest and must approve other electives.

BUSINESS MANAGEMENT
Operations Management Concentration

Associate in Applied Science Degree

The Operations Management concentration is designed to prepare graduates to assume management positions in an operations environment. Operations managers perform a variety of duties such as directing and training employees, setting and maintaining work schedules, and communicating and interpreting company policy to employees. They are responsible for equipment, products/services, and inventory. Graduates are prepared for employment in various industries and departments as shop supervisors, industrial supervisors, management trainees, work methods technicians, quality technicians, production planners or schedulers, and operations technicians.

Upon successful completion of the program, the student should be able to:
- Utilize business management principles to analyze problems and make decisions.
- Apply human resources management principles to analyze problems and make decisions concerning human resources.
- Design a system for the administration of wages and salaries.
- Apply supervision skills.
- Apply the principles and methods of managing the operations function within an organization.
- Plan and design manufacturing and service facilities utilizing analytical models and fact-based decision making.

- Apply math operations to solve fundamental business problems.
- Utilize a personal computer to prepare documents using word processing, spreadsheet, and database software and to perform basic navigation of the Internet.
- Prepare financial statements in accordance with generally accepted accounting principles and evaluate the results by performing basic financial statement analysis.
- Calculate product costs and break-even point for manufacturing companies and prepare operational budgets using both variable and absorption costing methods.
- Demonstrate effective communication skills in writing and speaking in a business environment.
- Apply economic theory to analyze social, political, financial, and business problems.
- Utilize financial tools and techniques to maximize a firm's long-term value.
- Develop a marketing plan for a product, using the fundamental elements of the marketing mix.

Required Program of Study

First Term

BUS	100	Introduction to Business	3
BUS	110	Business Math	3
IFT	110	Microcomputer Applications	3
ORI	100	College Success Strategies	1
			10

Second Term

ACC	105	Financial Accounting	3
COM	121	English Composition	3
MAT	150	Foundation of Math	3
SOC	125	Individual & Society	3
			12

Third Term

ACC	110	Managerial Accounting	3
BUS	106	Business Communications	3
HUM	--	Humanities Elective	3
MGT	100	Principles of Management	3
			12

Fourth Term

BUS	200	Macroeconomics	3
ENV	130	The Environment	3
MGT	200	Human Resources Management	3
MGT	250	Operations Management I	3
			12

Fifth Term

BUS	201	Microeconomics	3
MGT	240	Compensation Management	3
MGT	210	Supervisory Management	3
MGT	255	Operations Management II	3
			12

Sixth Term

ACC	210	Financial Management	3
BUS	220	Principles of Marketing	3
MGT	260	Facilities Planning and Design	3
			9

Total Credit Hours Required for the Program 67

BUSINESS MANAGEMENT
Retail Management Concentration

Associate in Applied Science Degree

The Retail Management program is designed to prepare graduates for careers in the field of retailing. Students who complete the program are prepared for positions of middle-level management, such as department manager, supervisor, buyer, sales manager, distribution manager, merchandise manager, wholesaler, credit manager, marketing manager, or assistant manager/manager of a retail store. The program will also upgrade the skills of those now employed in the field. Students will have the opportunity to choose from a number of second-year courses to allow specialization.

Upon successful completion of the program, the student should be able to:
- Utilize business management principles to analyze problems and make decisions.
- Apply human resources management principles to analyze problems and make decisions concerning human resources.
- Apply supervision skills.
- Apply the methods and tools of modern retail management.
- Utilize the methods and tools of sales.
- Apply math operations to solve fundamental business problems.
- Utilize a personal computer to prepare documents using word processing, spreadsheet, and database software and to perform basic navigation of the Internet.
- Prepare financial statements in accordance with generally accepted accounting principles and evaluate the results by performing basic financial statement analysis.
- Calculate product costs and break-even point for manufacturing companies and prepare operational budgets using both variable and absorption costing methods.
- Demonstrate effective communication skills in writing and speaking in a business environment.
- Apply economic theory to analyze social, political, financial, and business problems.
- Utilize financial tools and techniques to maximize a firm's long-term value.
- Develop a marketing plan for a product, using the fundamental elements of the marketing mix.
- Apply the law to recognize legal implications of business and personal transactions.

Required Program of Study

First Term

BUS	100	Introduction to Business	3
BUS	110	Business Math	3
IFT	110	Microcomputer Applications	3
ORI	100	College Success Strategies	1
			10

Second Term

ACC	105	Financial Accounting	3
COM	121	English Composition	3
MAT	150	Foundation of Math	3
SOC	125	Individual & Society	3
			12

Third Term

ACC	110	Managerial Accounting	3
BUS	106	Business Communications	3
HUM	--	Humanities Elective	3
MGT	100	Principles of Management	3
			12

Fourth Term

BUS	200	Macroeconomics	3
ENV	130	The Environment	3
MGT	200	Human Resources Management	3
--	--	Business Elective	3
			12

Fifth Term

BUS	201	Microeconomics	3
BUS	210	Principles of Sales	3
MGT	210	Supervisory Management	3
			9

Sixth Term

ACC	210	Financial Management	3
BUS	220	Principles of Marketing	3
BUS	230	Business Law	3
MGT	220	Retail Management	3
			12

Total Credit Hours Required for the Program 67

BUSINESS MANAGEMENT
Small Business Management Concentration

Associate in Applied Science Degree

The Small Business Management program is designed to prepare graduates for careers in small business management. Students who complete the program are prepared for employment as managers and assistant managers of a variety of small businesses; the entrepreneur will be equipped with the background and skills necessary to operate the business endeavor. Students will have the opportunity to choose from a number of second-year courses to allow the pursuit of special interests.

Upon successful completion of the program, the student should be able to:
- Utilize business management principles to analyze problems and make decisions.
- Apply human resources management principles to analyze problems and make decisions concerning human resources.
- Apply supervision skills.
- Develop and implement a plan for starting a new small business.
- Apply math operations to solve fundamental business problems.
- Utilize a personal computer to prepare documents using word processing, spreadsheet, and database software and to perform basic navigation of the Internet.
- Prepare financial statements in accordance with generally accepted accounting principles and evaluate the results by performing basic financial statement analysis.
- Calculate product costs and break-even point for manufacturing companies and prepare operational budgets using both variable and absorption costing methods.
- Prepare tax returns and conduct research utilizing the Internal Revenue Code.
- Demonstrate effective communication skills in writing and speaking in a business environment.
- Apply economic theory to analyze social, political, financial, and business problems.
- Utilize financial tools and techniques to maximize a firm's long-term value.
- Develop a marketing plan for a product, using the fundamental elements of the marketing mix.
- Apply the law to recognize legal implications of business and personal transactions.

Required Program of Study

First Term

BUS	100	Introduction to Business	3
BUS	110	Business Math	3
IFT	110	Microcomputer Applications	3
ORI	100	College Success Strategies	1
			10

Second Term

ACC	105	Financial Accounting	3
COM	121	English Composition	3
MAT	150	Foundation of Math	3
SOC	125	Individual & Society	3
			12

Third Term

ACC	110	Managerial Accounting	3

BUS	106	Business Communications	3
HUM	- -	Humanities Elective	3
MGT	100	Principles of Management	3
			12

Fourth Term

BUS	200	Macroeconomics	3
ENV	130	The Environment	3
MGT	200	Human Resources Management	3
- -	- -	Business Elective	3
			12

Fifth Term

ACC	230	Federal Taxes	3
BUS	201	Microeconomics	3
MGT	210	Supervisory Management	3
			9

Sixth Term

ACC	210	Financial Management	3
BUS	220	Principles of Marketing	3
BUS	230	Business Law	3
MGT	230	Small Business Management	3
			12

Total Credit Hours Required for the Program 67

BUSINESS MANAGEMENT

College Credit Certificate

The Business Management certificate program is designed to develop the skills necessary to implement and monitor effective business management practice. The knowledge gained from these courses will be helpful in entry-level management and management trainee positions. All course work may later be applied to an Associate in Applied Science degree if the student desires.

Upon successful completion of the program, the student should be able to:
- Utilize business management principles to analyze problems and make decisions.
- Apply human resources management principles to analyze problems and make decisions concerning human resources.
- Apply supervision skills.
- Utilize a personal computer to prepare documents using word processing, spreadsheet and database software and to perform basic navigation of the Internet.
- Prepare financial statements in accordance with generally accepted accounting principles and evaluate the results by performing basic financial statement analysis.
- Calculate product costs and break-even point for manufacturing companies and prepare operational budgets using both variable and absorption costing methods.
- Demonstrate effective communication skills in writing and speaking in a business environment.
- Develop a marketing plan for a product, using the fundamental elements of the marketing mix.
- Apply the law to recognize legal implications of business and personal transactions.

REQUIRED PROGRAM OF STUDY

ACC	105	Financial Accounting	3
ACC	110	Managerial Accounting	3
BUS	100	Introduction to Business	3
BUS	106	Business Communications	3
BUS	220	Principles of Marketing	3
BUS	230	Business Law	3
IFT	110	Microcomputer Applications	3

COM	121	English Composition	3
MGT	100	Principles of Management	3
MGT	200	Human Resources Management	3
MGT	210	Supervisory Management	3
ORI	100	College Success Strategies	1
- -	- -	Business Elective	3
		Total Credit Hours Required for the Certificate	37

Students should consult with an advisor to assure proper sequencing of courses.

The following courses qualify as a Business Elective: ACC 220, ACC 230, BUS 210, IFT 120, MGT 220, MGT 230, MGT 240, MGT 250, MGT 255, MGT 260, MGT 290 with CAR 105, MGT 291. Your advisor may suggest and must approve other electives.

CHEMISTRY TRANSFER PROGRAM

Associate in Arts Degree

This program is designed to prepare the student to enter a baccalaureate program in chemistry on the junior level.

Upon successful completion of this program, the student should be able to:
- Demonstrate effective oral and written communication skills in the expression of scientific concepts.
- Apply mathematical methods to scientific problems.
- Apply basic scientific principles and concepts in the solution of problems and laboratory experiments.
- Demonstrate an ability to collect, organize, analyze, evaluate and present data.
- Demonstrate an ability to retrieve data and search relevant literature.
- Demonstrate the ability to use specific scientific apparatus and instrumentation.
- Explain basic scientific principles related to the behavior of matter at the atomic and macroscopic levels in chemical systems.
- Transfer to an accredited college or university.

See General Education Requirements
Major Requirements

CHE	150	Chemistry I	4
CHE	155	Chemistry II	4
MAT	220	Calculus I	4
MAT	221	Calculus II	4
			16

Suggested Electives

Courses selected as electives will depend upon the transfer institution. It is essential that you meet with a Faculty Advisor for assistance in selecting courses. However, it is the responsibility of students to meet with an admissions representative from the four-year institution to determine its transfer policies.

BIO	150	MAT	210
BIO	155	MAT	222
BIO	280	PHY	240
CHE	220	PHY	245
ENV	170		

Minimum Credit Hours Required for the Program 60

COMMUNICATIONS TRANSFER

Associate in Arts Degree

The Communications Transfer Program prepares students for transfer to a four-year college or university. It offers students in communications, journalism, public relations and visual communications a broad base of courses and experiences as a foundation for future specialization. The program also focuses on writing for new and emerging media with special attention to online media.

Upon successful completion of this program, the student should be able to:
- Listen, speak, read, write and make presentations on a college level.
- Communication clearly and ethically.
- Write for a variety of purposes and audiences in commercial, technical and artistic contexts.
- Explore mass media through their evolution to the present condition.
- Write with diverse communication technologies such as desktop publishing programs and online writing programs.
- Apply critical thinking, problem-solving and study strategies.
- Employ appropriate methods of research by accessing and evaluating information from a variety of credible sources.
- Transfer to an accredited college or university.

See General Education Requirements
Major Requirements

COM	161	Mass Media	3
COM	163	Writing for the Media	3
COM	165	Desktop Publishing	3
COM	201	Introduction to Editing	3
COM	141	Technical Writing	(3)
		OR	3
COM	205	Writing for On-line Environments	(3)
			15

Suggested Electives

Courses selected as electives will depend upon the transfer institution. It is essential that students consult with a Faculty Advisor for assistance in selecting elective courses. However, it is the responsibility of students to meet with an admissions representative from the four-year institution to determine its transfer policies.

Since Humanities courses place special emphasis on reading, writing and other language and artistic skills, all courses in Humanities (HUM) are strongly recommended for this program.

Additional courses recommended for the Communications Transfer major include:

ANT	140	POS	130
ANT	200*	POS	135*
BUS	106*	PSY	120*
IFT	110*	SOC	120
COM	151*	SOC	125
HIS	115		

Minimum Credit Hours Required for the Program 60

*Strongly recommended.

CRIMINAL JUSTICE

Law Enforcement

Associate in Applied Science Degree

This program is designed to prepare students to work in the field of law enforcement. Law enforcement practitioners demonstrate an understanding of the law enforcement and criminal justice system, apply principles of law enforcement operation, learn about the collection and presentation of evidence and technologies utilized in the field, practice the techniques and management of patrol operations, and demonstrate the understanding and application of criminal law. Graduates are prepared for employment as patrolman, police officer, state trooper, deputy sheriff, youth detention officer, customs inspector, immigration detention officer, loss prevention investigator and claims investigator.

Upon successful completion of this program, the student should be able to:

- Discuss a comprehensive overview of the criminal justice system with focuses on crime in America, police process, courts and punishment, the prison system, and contemporary topics in law enforcement.
- Apply the basic structure of criminal law, culpability, use of force, search and seizure, the elements of crime, preparation of probable cause and formal charges and knowledge of the Pennsylvania Crime Code.
- Describe the Judicial process and its relationship to the rules of criminal procedure as it pertains to the United States and Commonwealth of Pennsylvania constitutions.
- Identify and apply legal procedures for the service of search and arrest warrants, interrogation of defendants, and prosecution of cases.
- Explain crime and criminological theories, analyzing criminal justice process, including the role of police, the criminal courts, the probation officer, correctional services, and the reentry of the offender into society.
- Discuss an overview of the criminal justice system, the responsibilities of each component of the system, and the interaction among the various agencies.
- Explain the importance of public services need for progressive community interaction skills of positive interpersonal relations based on the development of rapport through understanding, respect, empathy, planning and research with representatives of schools, social agencies, news media, politicians, political activists, and the community at large.
- Evaluate, contrast, and discuss the strengths and weaknesses of varying types of law enforcement management styles and administrative requirements.
- Employ law enforcement management skills and discuss delegation, decision-making, problem-solving, commendations, discipline, responding to community needs, evaluating law enforcement reports, allocation of staff, scheduling and acquisition of assets.
- Identify, discuss, and contrast the methods used in interviewing witnesses and victims, interrogating suspects in order to obtain valid confessions through establishing rapport, perceiving body language and obvious attempts at deception, use of the polygraph, and techniques for verbally disarming the interviewee.
- Describe how the criminal justice system responds to the juvenile offender in terms of historical perspectives and current practices for interview, arrest, detention, and diversion.

Required Program of Study

First Term

ORI	100	College Success Strategies	1
LAW	135	Introduction to Criminal Justice	3
COM	121	English Composition	3
SST	110	Information Technology for Social Sciences	3
			10

Second Term

LAW	140	Criminal Law	3
SOC	125	The Individual and Society	3
PSY	120	Interpersonal Relations & Communication	3
			9

Third Term

PSY	130	General Psychology	3
LAW	150	Legal Procedures	3
LAW	255	Law Enforcement & Community Relations	3
			9

Fourth Term

COM	141	Technical Writing	3
MAT	150	Foundations of Math	3
LAW	210	Law Enforcement Management I	3
LAW	230	Interviewing & Interrogation Skills	3
			12

Fifth Term

LAW	250	Criminal Investigation	3
LAW	185	Criminology	3
- -	- -	Elective (Recommend: SOC 225, LAW 270, PSY 230, or SOC 210)	3
			9

Sixth Term

ENV	130	The Environment	3
LAW	280	Law Enforcement Management II	3
LAW	285	Juvenile & Domestic Law	3
HUM	- -	Humanities Elective (see page 31)	3
			12

Total Credit Hours Required for the Program — 61

Graduates of Pennsylvania Municipal Police Academies (Act 120) are eligible for articulation of up to 15 credit hours into the required courses for the A.A.S. degree in Law Enforcement. For further information, contact the Program Coordinator.

CULINARY ARTS (Certified Cook)

College Credit Certificate

This Culinary Arts program prepares students to become certified cooks. It is designed to prepare students to take the national competency test administered by the American Culinary Federation (ACF). The program also prepares students to take the ServeSafe certification examination. * Please refer to selective admissions procedures

Upon successful completion of the program, the student should be able to:

- Utilize a personal computer to prepare documents using word processing, spreadsheet and database software and to perform basic navigation of the Internet.
- Apply the fundamental health and safety principles of nutrition.
- Safely use hand tools and equipment in a Food service environment.
- Apply skills in the preparation of salads, dressings, dips, sandwiches, and proper set up of work stations.
- Apply skills in production of Vegetables, and Fruits.
- Prepare Meats, Poultry, and Seafood in a variety of cooking techniques.
- Prepare eggs in a variety of styles, as well as breakfast meats, quick breads, and starches.
- Apply knowledge of ingredients, and mixing methods for a variety of baked goods.

- Produce frozen desserts, tarts, fruit desserts, decorated cakes, and meringues.
- Prepare aspics, forcemeats, pates, mousse, and marinades for use as decoration as well as consumption.
- Apply entry level skills in menu design, food cost, labor cost, and purchasing fundamentals.
- Apply the use of HACCP (Hazard Analysis-Critical Control Point) as an everyday occurrence in food production.

Required Program of Study
First Year

Fall Term

CUL	101	Basic Food Preparation and Safety	4
IFT	110	Microcomputer Applications	3
ORI	100	College Success Strategies	1
			8

Winter Term

CUL	111	Introduction to Food Production	4
			4

Spring Term

CUL	125	Food Preparation Theory	4
HEA	119	Personal Nutrition	1
			5

Summer Term

CUL	215	Breakfast Cookery	3
CUL	235	Professional Baking	3
			6

Second Year

Fall Term

CUL	201	Food Preparation Practicum	3
			3

Winter Term

CUL	240	Garde´ Manger	3
PSY	120	Interpersonal Relations & Communications	3
			6

Spring Term

CUL	220	Food Service Sanitation	2
CUL	255	Food Preparation Practicum	3
			5

Total Credit Hours Required for the Program   37

CULINARY ARTS

Associate in Applied Science Degree

The Culinary Arts program is designed to prepare students for positions as first-line supervisors and managers in the growing food service industry. Students who complete the program learn different styles and techniques for ordering, preparing, and serving food, planning menus and managing food service organizations. The program also prepares students to take the ServeSafe certification examination. **College credit may be granted through Tech Prep articulation agreements between RACC and approved secondary schools.** Please refer to the Selective Admissions Procedures.

Upon successful completion of the program, the student should be able to:
- Utilize business and management principles to analyze problems and make decisions.
- Apply math operations to solve fundamental business problems.
- Utilize a personal computer to prepare documents using word processing, spreadsheet and database software and to perform basic navigation of the Internet.
- Apply the fundamental health and safety principles of nutrition.

- Safely use hand tools and equipment in a Food service environment.
- Apply skills in the preparation of salads, dressings, dips, sandwiches, and proper set up of work stations.
- Apply skills in production of Vegetables, and Fruits.
- Prepare Meats, Poultry, and Seafood in a variety of cooking techniques.
- Prepare eggs in a variety of styles, as well as breakfast meats, quick breads, and starches.
- Apply knowledge of ingredients, and mixing methods for a variety of baked goods.
- Produce frozen desserts, tarts, fruit desserts, decorated cakes, and meringues.
- Prepare aspics, forcemeats, pates, mousse, and marinades for use as decoration as well as consumption.
- Apply entry level skills in menu design, food cost, labor cost, and purchasing fundamentals.
- Apply the use of HACCP (Hazard Analysis-Critical Control Point)as an everyday occurrence in food production.

Required Program of Study
First Year

Fall Term

CUL	101	Basic Food Preparation and Safety	4
COM	121	English Composition	3
IFT	110	Microcomputer Applications	3
ORI	100	College Success Strategies	1
			11

Winter Term

BUS	100	Introduction to Business	3
COM	141	Technical Writing	3
CUL	111	Introduction to Food Production	4
			10

Spring Term

CUL	125	Food Preparation Theory	4
HEA	119	Personal Nutrition	1
MGT	100	Principles of Management	3
			8

Summer Term

CUL	215	Breakfast Cookery	3
CUL	235	Professional Baking	3
			6

Second Year

Fall Term

BUS	110	Business Math	3
CUL	201	Food Preparation Practicum	3
SOC	125	Individual & Society	3
			9

Winter Term

CUL	240	Garde´ Manger	3
ENV	130	The Environment	3
PSY	120	Interpersonal Relations & Communications	3
			9

Spring Term

CUL	220	Food Service Sanitation	2
CUL	255	Advanced Food Preparation Practicum	3
HUM	- -	Humanities Elective	3
			8

Total Credit Hours Required for the Program   61

EARLY CHILDHOOD DIRECTOR

College Credit Certificate

The Early Childhood Director certificate program is designed to prepare graduates for administrative work in Early Childhood settings. Emphasis is placed on the unique role of the Early Childhood Program director and the education of young children. This program is designed for students with a BA/BS or AA/AAS in other fields and wish to work as Early Childhood Directors.

Upon successful completion of this program, the student should be able to:

- Plan and set up an environment designed to support and encourage the development of the creative process in inclusive early care and education settings.
- Analyze and relate historical, social, economic, and philosophic bases for current practice and trends in early childhood education
- Develop and implement health, safety, and nutrition policies that comply with regulatory standards.
- Apply knowledge of infant/toddler development including the unique program needs to develop age appropriate curriculum and environment.
- Evaluate the impact of socioeconomic issues, issues of attachment and family structures on the development of the child.
- Demonstrate managerial and supervisor skills required for day to day operations of early care and education settings.
- Evaluate the role of leadership and advocacy for public policy issues related to children and their families.
- Utilize the Code of Ethics for Early Childhood Education to demonstrate the development of a professional attitude.
- Apply knowledge of communication skills in relationship to organizational management and leadership.

Required Program of Study

First Term

ECE	115	Creative Art for the Developing Child	3
ECE	125	Intro to Early Childhood Education	3
ECE	229	Childcare Management	3
			9

Second Term

ECE	230	Childcare Administration	3
PSY	115	Modern Parenting	3
SST	110	Information Technology for Social Sciences	3
			9

Third Term

ECE	227	Infant/Toddler Care & Education	3
ECE	240	School-Age Childcare	3
ECE	290	Cooperative Education	3
SOC	120	Organizational Behavior	3
			12

Total Credit Hours Required for the Certificate   30

EARLY CHILDHOOD EDUCATION TEACHING

Associate in Applied Science Degree

The Teaching option of the Early Childhood Education program is intended to prepare graduates to function as teachers' assistants or aides in preschool agencies, institutions and other organizations concerned with young children. Graduates may seek employment opportunities with headstart, day care centers, private pre-schools, and kindergartens. Graduates with two years of experience may also be employed as a teacher in child care centers licensed under the Department of Welfare. Students entering this curriculum may find it necessary to attend the summer sessions to fulfill their degree requirements within two years. **College credit may be granted through <u>Tech Prep articulation</u> agreements between RACC and approved secondary schools.**

Upon successful completion of this program, the student should be able to:

- Plan and set up an environment designed to support and encourage the development of the creative process in inclusive early care and education settings.
- Employ appropriate, observable assessment and behavior guidance techniques in inclusive early care and education settings.
- Analyze and relate historical, social, economic, and philosophic bases for current practice and trends in early childhood education.
- Develop and implement health, safety, and nutrition policies that comply with regulatory standards.
- Apply knowledge of early childhood curriculum and child development to plan, adapt, and implement a comprehensive curriculum in early care and education settings.
- Apply knowledge of infant/toddler development including the unique program needs to develop age appropriate curriculum and environment.
- Evaluate the impact of socioeconomic issues and issues of attachment and family structures on the development of the child.
- Demonstrate managerial and supervisory skills required for day-to-day operations of early care and education settings.
- Utilize the Code of Ethics for Early Childhood Education to demonstrate the development of a professional attitude.
- Utilize effective communication skills with children, colleagues, supervisors, and parents.

Required Program of Study

First Term

ORI	100	College Success Strategies	1
ECE	115	Creative Art for the Developing Child	3
ECE	140	Health, Safety and Nutrition in Early Childhood Education	3
COM	121	English Composition	3
			10

Second Term

ECE	125	Intro to Early Childhood Education	3
PSY	130	General Psychology	3
COM	131	Composition and Literature	
		or	3
COM	141	Technical Writing	
SOC	125	Individual and Society	3
			12

Third Term

ECE	120	Observation & Interpretation of Child Behavior	3
PSY	210	Child Psychology	3
PSY	120	Interpersonal Relations & Communications	3
ECE	150	Early Childhood Education Practicum I	3
			12

Fourth Term

ECE	220	Curriculum Development & Instructional Materials	3
EDU	220	Multicultural Education	3
ENV	130	The Environment	3
HUM	- - -	Humanities Elective	3
			12

Fifth Term

ECE	222	Language Arts for Early Childhood	3

COM	151	Fundamentals of Speech	
		or	3
ECE	230	Child Care Administration	
MAT	150	Foundations of Math	3
SOC	220	The Family	3
			12

Sixth Term

PSY	216	Psychology of the Exceptional Child	3
ECE	- - -	Elective	3
ECE	250	Early Childhood Practicum II	3
			9

Total Credit Hours Required for the Program   67

EARLY CHILDHOOD MANAGEMENT

Associate in Applied Science Degree

This Management option of the Early Childhood Education program is designed to prepare graduates for administrative work in programs for pre-school age children. Increased emphasis is being placed upon the education of young children. Graduates may seek employment as supervisors or managers with private programs or governmentally funded programs. Students entering this curriculum may find it necessary to attend the summer sessions to fulfill their degree requirements within two years.

Upon successful completion of this program, the student should be able to:
• Plan and set up an environment designed to support and encourage the development of the creative process in inclusive early care and education settings.
• Employ appropriate, observable assessment and behavior guidance techniques in inclusive early care and education settings.
• Analyze and relate historical, social, economic, and philosophic bases for current practice and trends in early childhood education.
• Develop and implement health, safety, and nutrition policies that comply with regulatory standards.
• Apply knowledge of early childhood curriculum and child development to plan, adapt, and implement a comprehensive curriculum in early care and education settings.
• Apply knowledge of infant/toddler development including unique program needs to develop age appropriate curriculum and environment.
• Evaluate the impact of socioeconomic issues, issues of attachment and family structures on the development of the child.
• Demonstrate managerial and supervisory skills required for day-to-day operations of early care and education settings.
• Evaluate the role of leadership and advocacy for public policy issues related to children and families.
• Utilize the Code of Ethics for Early Childhood Education to demonstrate the development of a professional attitude.
• Apply knowledge of communication skills in relationship to organizational management and leadership.

Required Program of Study

First Term

ORI	100	College Success Strategies	1
ECE	115	Creative Art for the Developing Child	3
PSY	130	General Psychology	3
COM	121	English Composition	3
			10

Second Term

| ECE | 125 | Intro to Early Childhood Education | 3 |
| PSY | 115 | Modern Parenting | 3 |

COM	141	Technical Writing	3
SOC	125	Individual and Society	3
			12

Third Term

ECE	240	School-Age Child Care	3
PSY	210	Child Psychology	3
ECE	227	Infant/Toddler Care and Education	3
ECE	150	Early Childhood Practicum I	3
			12

Fourth Term

ECE	220	Curriculum Development & Instructional Materials	3
EDU	220	Multicultural Education	3
MAT	150	Foundations of Math	3
ECE	229	Childcare Management	3
			12

Fifth Term

SST	110	Information Technology for Social Sciences	3
ECE	230	Child Care Administration	3
HUM	- -	Elective	3
SOC	220	The Family	3
			12

Sixth Term

PSY	216	Psychology of the Exceptional Child	3
SOC	120	Organizational Behavior	3
ENV	130	The Environment	3
ECE	255	Early Childhood Practicum II	3
			12

Total Credit Hours Required for the Program   70

EARLY CHILDHOOD DIPLOMA

Social Science Diploma

The Early Childhood Diploma is designed to provide fundamental course work for entry level employment as an aide in the early care and education field. It also serves as the educational component for the Child Development Associate Credential (CDA). The CDA is a national credential awarded through the Council for Early Childhood Professional Recognition. Credits in this program may be applied to the Professional Child Care Certificate and/or Early Childhood Teaching or Management Associate Degree Programs.

Upon successful completion of this program, the student should be able to:
• Establish and maintain a safe, healthy learning environment.
• Advance the physical and intellectual competence of young children.
• Support social and emotional development and provide positive guidance for young children.
• Establish positive and productive relationships with families.
• Ensure a well run program that is responsive to participant needs.
• Maintain a commitment to professionalism.

Required Program of Study

First Term

ECE	115	Creative Art for the Developing Child	3
ORI	100	College Success Strategies	1
			4

Second Term

ECE	105	The Early Childhood Professional	3
PSY	115	Modern Parenting	3
			6

Third Term

ECE	150	Early Childhood Practicum I	3
ECE	- - -	Early Childhood Elective	3
			6

Total Credit Hours Required for the Diploma   **16**

EDUCATIONAL TECHNOLOGY

(NO NEW ADMISSIONS IN THIS PROGRAM AT THIS TIME.)

Associate in Applied Science Degree

The Educational Technology program is designed to prepare graduates for a career working with teachers and students in environments that are rich in educational technology. Participants will learn about laserdisc, CD-ROM, computer applications, the internet, issues, trends, and other areas of educational technology.

Upon successful completion of this program, the student should be able to:
- Apply ethical choices and analyze social issues related to educational technology.
- Utilize resources for keeping current with issues and trends in educational technology.
- Employ advanced principles of instructional design.
- Evaluate complex educational software.
- Demonstrate ability to install and use advanced educational technology tools.
- Apply telecommunications for educational purposes.
- Utilize multimedia hardware, software, and applications.
- Create complex multimedia applications.
- Assist with educational technology installation, application, and problem resolution.
- Develop a plan for life cycle budgeting.
- Create procedures for resource management.

Required Program of Study

First Term

ORI	100	College Success Strategies	1
COM	121	English Composition	3
SOC	125	Individual & Society	3
SST	110	Information Technology for the Social Sciences	3
			10

Second Term

COM	141	Technical Writing	3
ENV	130	The Environment	3
MAT	150	Foundations of Math	3
EDU	130	Foundation of Education	3
			12

Third Term

COM	151	Fundamentals of Speech	3
EDT	200	Introduction to Educational Technology	3
BIO	120	Biological Concepts with Lab	4
			10

Fourth Term

SOC	130	Sociology	3
SPE	215	Assistive Technology	3
EDT	210	Advanced Educational Technology	3
PSY	120	Interpersonal Relations	3
			12

FIFTH TERM

EDT	220	Issues & Trends in Educational Technology	3
PSY	130	General Psychology	3
CAR	105	Professionalism on the Job	1
EDT	290	Cooperative in Education Technology	3
			10

Sixth Term

EDT	291	Cooperative in Educational Technology	3
HUM	--	Humanities Elective	3
--	--	Social Sciences Elective	3
			9

Total Credit Hours Required for the Program   63

EDUCATION TRANSFER

Associate in Arts Degree

This program is designed to prepare the student to enter a baccalaureate program in Elementary Education/Secondary Education on the junior level.

See General Education Requirements

Elementary Education Concentration

Upon successful completion of this program, the student should be able to:
- Describe the multidimensional aspects of classroom teaching in public and private school systems.
- Analyze and relate historical, social, economic, and philosophic bases for current practice and trends in education.
- Cite Pennsylvania teaching certification requirements for chosen areas of certification.
- Use Interstate New Teacher Assessment and Support Consortium (INTASC) standards for beginning teachers to begin to develop a standards-based portfolio.
- Apply knowledge of the teaching/learning process.
- Evaluate the influences of cultural diversity on teachers, students, and school systems.
- Analyze the impact of a variety of learning styles for teachers, students, and school systems.
- Describe the impact of the Individuals with Disabilities Education Act (IDEA) for teachers, students, parents, and school systems.
- Apply knowledge of child development including meeting the unique needs of students in planning for instruction.
- Demonstrate effective communication skills in group and individual situations.
- Transfer to an accredited college or university in education.

Major Requirements

EDU	130	Foundations of Education	3
EDU	220	Multicultural Education	3
PSY	120	Interpersonal Relations & Communication	3
PSY	210	Child Psychology	3
PSY	240	Educational Psychology	3
			15

Suggested Electives

*A minimum of 15 ECE credits are needed if students are seeking work in child care centers licensed by the Department of Public Welfare.

ANT	135	ECE	220*	HIS	125	SOC	220
ANT	140	ECE	222*	POS	135	SOC	225
COM	151	GEO	101	PSY	216*	SOC	230
ECE	115*	HIS	110	SOC	125	SPE	100
ECE	120*	HIS	115	SOC	130*		
ECE	125*	HIS	120	SOC	210		

Students who are planning to transfer to a dual certification in Early Childhood/Elementary Education should consult with the institution to which they will transfer.

Secondary Education Concentration

Upon successful completion of this program, the student should be able to:
- Describe the multidimensional aspects of classroom teaching in public and private school systems.
- Analyze and relate historical, social, economic, and philosophic bases for current practice and trends in education.
- Cite Pennsylvania teaching certification requirements for chosen areas of certification.

- Use Interstate New Teacher Assessment and Support Consortium (INTASO) standards for beginning teachers to begin to develop a standards-based portfolio.
- Apply knowledge of the teaching/learning process.
- Evaluate the influences of cultural diversity on teachers, students, and school systems.
- Analyze the impact of a variety of learning styles for teachers, students, and school systems.
- Describe the impact of the Individuals with Disabilities Education Act (IDEA) for teachers, students, parents, and school systems.
- Apply knowledge of adolescent development including meeting the unique needs of students in planning for instruction.
- Demonstrate effective communication skills in group and individual situations.
- Transfer to an accredited college or university in education.

Major Requirements

EDU	130	Foundations of Education	3
EDU	220	Multicultural Education	3
PSY	120	Interpersonal Relations & Communications	3
PSY	212	Adolescent Psychology	3
PSY	240	Educational Psychology	3
			15

Suggested Electives

Courses selected as electives will depend upon the institution to which you will transfer. It is essential that students consult with a Faculty Advisor for assistance in selecting elective courses. However, it is the responsibility of students to meet with an admissions representative from the four-year institution to determine its transfer policies.

ANT	135	HIS	115	PSY	216*	SOC	220
ANT	140	HIS	120	SOC	125	SOC	225
COM	151	HIS	125	SOC	130*	SOC	230
GEO	101	POS	135	SOC	210	SPE	100
HIS	110						

*strongly recommended

Minimum Credit Hours Required for the Program   60

Special Education Concentration

Upon successful completion of this program, the student should be able to:
- Describe the multidimensional aspects of classroom teaching in public and private school systems.
- Analyze and relate historical, social, economic, and philosophic bases for current practice and trends in education.
- Cite Pennsylvania teaching certification requirements for chosen areas of certification.
- Use Interstate New Teacher Assessment and Support Consortium (INTASC) standards for beginning teachers to begin to develop a standards-based portfolio.
- Apply knowledge of the teaching/learning process.
- Evaluate the influences of cultural diversity on teachers, students, and school systems.
- Analyze the impact of a variety of learning styles for teachers, students, and school systems.
- Describe the impact of the Individuals with Disabilities Education Act (IDEA) for teachers, students, parents, and school systems.
- Apply knowledge of child development including meeting the unique needs of students in planning for instruction.

- Apply knowledge of adolescent development including meeting the unique needs of students in planning for instruction.
- Demonstrate effective communication skills in group and individual situations.
- Transfer to an accredited college or university in education.

Major Requirements

EDU	130	Foundations of Education	3
PSY	216	Psychology of the Exceptional Child	3
SPE	100	Introduction to Special Education	3
PSY	240	Educational Psychology	3
EDU	220	Multicultural Education	3
			15

Suggested Electives

Courses selected as electives will depend upon the institution to which you will transfer. It is essential that students consult with a Faculty Advisor for assistance in selecting elective courses. However, it is the responsibility of the students to meet with an admissions representative from the four-year institution to determine its transfer policies.

ANT	135	ECE	220*	SPE	220	SOC	130*
ANT	140	ECE	222*	HIS	125	SOC	210
COM	151	GEO	101	HMS	230	SOC	220
ECE	115*	HIS	110	POS	135	SOC	225
ECE	120*	HIS	115	PSY	120	SOC	230
ECE	125*	HIS	120	SPE	205	SPE	100
PSY	210	SPA	101	SOC	125	SPE	210
SPE	215						

ELECTRIC UTILITY TECHNOLOGY

Associate in Applied Science Degree

This program is offered in partnership with FirstEnergy Corporation. It prepares students for employment as a line worker in electric and related utility industries. Students gain knowledge and skills in DC/AC electricity, electrical circuits, electrical control wiring, wiring systems, transformers, power generation and power distribution. In addition to classroom and laboratory intruction students also participate in hands-on experiences at a local electric utility company training facility. Upon successful completion of the program, students will be more employable and able to command a higher starting wage rate than the typical entry-level employee in the utility industry. Enrollment in the program is restricted.

Upon successful completion of this program, the student should be able to:
- Demonstrate effective technical writing skills.
- Demonstrate work practices that comply with OSHA and safety guidelines for the electric utility industry.
- Demonstrate proficiency in the use of various hand tools used in the electricl utility industry.
- Operate equipment used in the maintenance and repair of electric utility systems
- Obtain a Commercial Drivers License (CDL).
- Troubleshoot faults in both above ground and underground circuits.
- Repair both un-energized and live circuits.

Required Program of Study

Fall Semester

EUT	100	Electric Utility Technology I	6
			6

Fall Term

MAT	110	Algebra II	3
COM	121	English Composition	3
ORI	100	College Success Strategies	1
			7

Winter Term

PHY	150	Applied Physics	4
EUT	110	Electrical Systems and Control Wiring	4
			8

Spring Semester

EUT	120	Electric Utility Technology II	6
			6

Spring Term

IFT	110	Microcomputer Applications	3
EUT	130	Wiring Systems, Transformers, Power Generation & Distribution	4
			7

Summer Session

EUT	290	Cooperative Education	3
			3

SECOND YEAR

Fall Semester

EUT	200	Electric Utility Technology III	6
			6

Fall Term

COM	141	Technical Writing	3
EUT	210	Local and National Electric Codes	3
			6

Winter Term

HUM	275	Introduction to Ethics	3
PSY	120	Interpersonal Relations & Communications	3
			6

Spring Semester

EUT	220	Electric Utility Technology IV	6
			6

Spring Term

ENV	130	The Environment	3
SOC	125	Individual and Society	3
			6

ENVIRONMENTAL SCIENCE TRANSFER

Associate in Arts Degree

This program is designed to prepare the student to enter a baccalaureate program in the environmental sciences on the junior level.

Upon successful completion of this program, the student should be able to:
- Demonstrate effective oral and written communication skills in the expression of scientific concepts.
- Apply mathematical methods to scientific problems.
- Apply basic scientific principles and concepts in the solution of problems and laboratory experiments.
- Demonstrate an ability to collect, organize, analyze, evaluate, and present data.
- Demonstrate an ability to retrieve data and search relevant literature.
- Demonstrate the ability to use specific scientific apparatus and instrumentation.
- Explain basic scientific concepts in the physical and biological sciences and their application to the field of environmental science.
- Analyze the literature of population, resources, biological principles, hydrological and limnological sciences, physical geology, environmental testing as well as the environmental aspects of ethics, governmental laws and policies.
- Transfer to an accredited college or university.

See General Education Requirements

Major Requirements

BIO	150	Biology I	4
CHE	150	Chemistry I	4
ENV	170	Intro to Environment Science	4
MAT	180	Precalculus	3
			15

Suggested Electives

Courses selected as electives will depend upon the institution to which you will transfer. It is essential that you consult with a Faculty Advisor for assistance in selecting elective courses. However, it is the responsibility of students to meet with an admissions representative from the four-year institution to determine its transfer policies.

BIO	205	PHY	245
BIO	210	CHE	155
BIO	280	MAT	220
CHE	220	MAT	221
PHY	240	MAT	210

Minimum Credit Hours Required for the Program   60

EXECUTIVE SECRETARY

Associate in Applied Science Degree

The Executive Secretary program is designed to provide students with the competencies necessary to obtain employment as secretaries in business, industry, or government. Additional employment opportunities would be: bilingual secretary, social secretary, typist, clerical worker, and receptionist. **College credit may be granted through Tech Prep articulation agreements between RACC and approved secondary schools.**

Upon successful completion of this program, the students should be able to:
- Demonstrate effective communication skills in writing and speaking in a business environment.
- Apply math operations to solve fundamental business problems.
- Demonstrate proficiency in keyboarding of business letters, memos, reports, and tables at a high level of speed and accuracy.
- Demonstrate a high degree of accuracy in applying correct grammar, usage, and style when transcribing documents from dictated audio tapes.
- Apply basic language skills associated with the parts of speech, sentence formations, numerical expression, capitalization, punctuation, and word division rules to business correspondence.
- Transcribe from various kinds of original communication, such as handwritten copy, printed copy, and voice-recorded dictation.
- Proofread and edit typed/keyed copy, including transcription of machine dictation, with a high degree of accuracy and correctness.
- Apply principles of supervision and management in order to obtain maximum productivity from computerized systems in both traditional and automated offices, with appropriate emphasis on people, procedures, and equipment.
- Work independently, with others, or in self-directed work teams to demonstrate effective interpersonal and problem-solving skills, attitudes, and work habits that contribute to organizational goals.
- Use appropriate office procedures in the areas of records information management, calculator, telephone communications, incoming and outgoing mail, meetings and conferences, travel arrangements, and simulated projects.

- Demonstrate speedwriting skills to take notes from oral dictation and produce mailable copy.
- Recognize the changing nature of technology and adapt to new equipment and procedures while retaining the most appropriate traditional office practices.
- Use word processing, spreadsheet, database, presentation, and Internet skills to complete office tasks.

Required Program of Study

First Term

BUS	105	Business English	3
ENV	130	The Environment	3
OFT	110	Keyboarding I	3
ORI	100	College Success Strategies	1
			10

Second Term

BUS	110	Business Mathematics	3
MGT	140	Administrative Office Management	3
COM	121	English Composition	3
OFT	111	Keyboarding II	3
			12

Third Term

BUS	106	Business Communications	3
OFT	112	Keyboarding III	3
OFT	120	Machine Dictation and Transcription	3
			9

Fourth Term

OFT	212	Office Procedures	3
OFT	213	Word Processing I	3
SOC	125	The Individual and Society	3
			9

Fifth Term

--	--	Business Elective (see list below)	
OFT	210	Speedwriting I	3
OFT	214	Word Processing II	3
OFT	220	Executive Dictation and Transcription	3
			12

Sixth Term

CAR	105	Professionalism on the Job	1
HUM	--	Humanities Elective	3
OFT	211	Speedwriting II	
		or	3
--	--	Business Elective (see list below)	
OFT	221	Executive Office Procedures	3
OFT	290	Cooperative Education I	3
			13

Total Credit Hours Required for the Program   65

The following courses qualify as a Business Elective: ACC 105, ACC 110, BUS 100, BUS 220, BUS 230, OFT 210, OFT 211.

HEATING, VENTILATION, AIR CONDITIONING & REFRIGERATION

College Credit Certificate

The HVAC/R Program prepares students to become certified heating, ventilation, air conditioning and refrigeration technicians. It is designed to meet the demands of this rapidly changing industry. Equipment, technology and materials will be stressed along with new OSHA and EPA regulations regarding their use. Some of the coursework in this program will prepare students to take the EPA 605 Refrigerant Handlers Certification Examination. **College credit may be granted through <u>Tech Prep articulation</u> agreements between RACC and approved secondary schools.**

Upon successful completion of this program, the student should be able to:
- Read and interpret architectural, mechanical, plumbing, and structural blueprints.
- Demonstrate proficiency in the use of various refrigeration equipment and tools.
- Demonstrate the proper handling, disposal, and knowledge of various types of refrigerants.
- Install, service, and troubleshoot various types of heating, ventilation, and air conditioning equipment.
- Apply knowledge of electricity and the electrical control systems to heating, ventilation, and air conditioning equipment.

Required Program of Study

First Term

ORI	100	College Success Strategies	1
HAC	100	Introduction to Refrigeration	3
HAC	101	Introduction to Refrigeration Lab	1
			5

Second Term

MAT	110	Algebra II	3
HAC	120	Introduction to Electricity	3
HAC	121	Introduction to Electricity Lab	1
			7

Third Term

HAC	130	HVAC/R Electrical Controls	3
HAC	131	HVAC/R Electrical Controls Lab	1
			4

Fourth Term

HAC	110	Architectural Blueprint Reading	3
ENV	130	The Environment	3
			6

Fifth Term

HAC	140	Commercial Refrigeration	3
HAC	141	Commercial Refrigeration Lab	1
			4

Sixth Term

HAC	150	Heating and Air Conditioning Systems	3
HAC	151	Heating and Air Conditioning Systems Lab	1
			4

Total Credit Hours Required for the Program   30

Students enrolling in daytime courses offered at the Berks Career and Technology Center must present a Criminal Background Check and Child Abuse Clearance prior to the first day of class. For information on this program contact the Coordinator of Special Programs at 610-607-6219.

HEATING, VENTILATION, AIR CONDITIONING & REFRIGERATION (Daytime Sequence)

College Credit Certificate

The HVAC/R program prepares students to become certified heating, ventilation, air conditioning and refrigeration technicians. It is designed to meet the demands of this rapidly changing industry. Equipment, technology and materials will be stressed along with new OSHA and EPA regulations regarding their use. Some of the coursework in this program will prepare students to take the refrigerant certification examination. **College credit may be granted through** Tech Prep articulation **agreements between RACC and approved secondary schools.**

Required Program of Study

First Term

ORI	100	College Success Strategies	1
HAC	100	Introduction to Refrigeration	3
HAC	101	Introduction to Refrigeration Lab	1
HAC	110	Architectural Blueprint Reading	3
MAT	110	Algebra II	3
			11

Second Term

HAC	120	Introduction to Electricity	3
HAC	121	Introduction to Electricity Lab	1
HAC	130	HVAC/R Electrical Controls	3
HAC	131	HVAC/R Electrical Controls Lab	1
ENV	130	The Environment	3
			11

Third Term

HAC	140	Commercial Refrigeration	3
HAC	141	Commercial Refrigeration Lab	1
HAC	150	Heating and Air Conditioning Systems	3
HAC	151	Heating and Air Conditioning Systems Lab	1
			8

Total Credit Hours Required for the Program   30

Students enrolling in daytime courses offered at the Berks Career and Technology Center must present a Criminal Background Check and Child Abuse Clearance prior to the first day of class. For information on this program contact the Coordinator of Special Programs at 610-607-6219.

HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

Associate in Applied Science Degree

The HVAC/R Technology program prepares students to install, troubleshoot and repair residential, light commercial, heavy commercial and industrial HVAC/R equipment. Students also study psychrometric charts and heat loads plus air distribution. Equipment, technology and materials will be stressed along with new OSHA and EPA regulations regarding their use. Some coursework will prepare students to take the EPA 605 Refrigerant Handlers Certification Examination. **College credit may be granted through** Tech Prep articulation **agreements between RACC and approved secondary schools.**

Upon successful completion of this program, the student should be able to:
- Demonstrate effective technical writing skills.
- Read, interpret, and create architectural, mechanical, plumbing, and structural blueprints.
- Demonstrate proficiency in the use various refrigeration equipment and tools.

- Demonstrate the proper handling, disposal and knowledge of various types of refrigerants.
- Install, service, and troubleshoot various types of heating, ventilation, and air conditioning equipment.
- Demonstrate knowledge of electricity, and the electrical control systems applied to heating, ventilation, and air conditioning equipment.
- Describe the properties of air, and air flow through analysis and interpretation of psychrometric charts.
- Calculate and apply building heating and cooling loads by properly selecting cooling, heating, and air conditioning equipment.

Required Program of Study

First Term

HAC	100	Introduction to Refrigeration	3
HAC	101	Introduction to Refrigeration Lab	1
COM	121	English Composition	3
ORI	100	College Success Strategies	1
SOC	125	Individual & Society	3
			11

Second Term

COM	141	Technical Writing	3
HAC	120	Introduction to Electricity	3
HAC	121	Introduction to Electricity Lab	1
MAT	110	Algebra II	3
			10

Third Term

HAC	130	HVAC/R Electrical Controls	3
HAC	131	HVAC/R Electrical Controls Lab	1
MAT	160	College Algebra	3
PHY	150	Applied Physics	4
			11

Fourth Term

HAC	110	Architectural Blueprint Reading	3
CHE	120	Principles of Chemistry	4
ENV	130	The Environment	3
			10

Fifth Term

HAC	140	Commercial Refrigeration	3
HAC	141	Commercial Refrigeration Lab	1
HUM	--	Humanities Elective	3
MAT	165	Trigonometry	3
			10

Sixth Term

HAC	150	Heating and Air Conditioning Systems	3
HAC	151	Heating and Air Conditioning Systems Lab	1
HAC	200	Psychrometric Charts & Heat Loads	3
HAC	210	Air Distribution	3
			10

Total Credit Hours Required for the Program   62

Students enrolling in daytime courses offered at the Berks Career and Technology Center must present a Criminal Background Check and Child Abuse Clearance prior to the first day of class. For information on this program contact the Coordinator of Special Programs at 610-607-6219.

HUMAN RESOURCES MANAGEMENT

College Credit Certificate

The Human Resources Management certificate program is designed to allow general business managers an opportunity to specialize in personnel and human resources topics. The skills and knowledge provided by these courses will enhance the manager's ability to effectively attain and maintain an organization's most valuable resource – people. All course work may later be applied to an Associate in Applied Science degree if the student desires.

Upon successful completion of the program, the student should be able to:
- Utilize business management principles to analyze problems and make decisions.
- Apply human resources management principles to analyze problems and make decisions concerning human resources.
- Design a system for the administration of compensation.
- Apply supervision skills.
- Utilize a personal computer to prepare documents using word processing, spreadsheet and database software and to perform basic navigation of the Internet.
- Prepare financial statement in accordance with generally accepted accounting principles and evaluate the results by performing basic financial statement analysis.
- Demonstrate effective communication skills in writing and speaking in a business environment.
- Develop a marketing plan for a product, using the fundamental elements of the marketing mix.
- Apply the law to recognize legal implications of business and personal transactions.

Required Program of Study

ACC	105	Financial Accounting	3
BUS	100	Introduction to Business	3
BUS	106	Business Communications	3
BUS	220	Principles of Marketing	3
BUS	230	Business Law	3
COM	121	English Composition	3
IFT	110	Microcomputer Applications	3
MGT	240	Compensation Management	3
MGT	100	Principles of Management	3
MGT	200	Human Resources Management	3
MGT	210	Supervisory Management	3
ORI	100	College Success Strategies	1
--	--	Business Elective	3

Total Credit Hours Required for the Certificate 37

Students should consult with an advisor to assure proper sequencing of courses.

The following courses qualify as a Business Elective: ACC 110, ACC 210, BUS 210, IFT 120, MGT 220, MGT 230, MGT 250, MGT 255, MGT 260, MGT 290 with CAR 120.

HUMAN SERVICES WORKER

Associate in Applied Science Degree
This program is designed to prepare students to work in the varied field of human services. The Human Services Worker, with supervision, follows a care plan which provides services that are supportive, rehabilitative and therapeutic. These services have some urgency to the client's emotional or physical needs. Assessment, follow-up, networking and utilization of resources are critical functions for this work. The Human Services Worker must document all services provided from intake to closure.

Upon successful completion of this program, the student should be able to:
- Describe the historical development of human services.
- Identify the structure and dynamics of organizations, communities, and society as well as the nature of individuals and groups.
- Explain and apply psychological and sociological theory to client situations.
- Apply case management skills.
- Implement and evaluate interventions based on assessment of client needs.
- Demonstrate information management skills.
- Communicate effectively using verbal and nonverbal skills with individuals and groups.
- Act in a professional and ethical manner in carrying out duties and responsibilities during fieldwork placement in a human service agency or organization
- Demonstrate awareness of one's values, cultural bias, reaction patterns, interpersonal style, and limitations.

Required Program of Study

First Term

ORI	100	College Success Strategies	1
COM	121	English Composition	3
HMS	110	Introduction to Human Services	3
SOC	125	Individual and Society	3
			10

Second Term

COM	141	Technical Writing	3
PSY	120	Interpersonal Relations and Communications	3
PSY	130	General Psychology	3
HMS	125	Human Services and the Law	3
			12

Third Term

SST	110	Information Technology for Social Sciences	3
ENV	130	The Environment	3
HMS	140	Health and Safety in Human Services	3
COM	151	Fundamentals of Speech	3
			12

Fourth Term

HMS	215	Human Service Methods & Practice I	4
MAT	150	Foundations of Math	3
CAR	105	Professionalism on the Job	1
			8

Fifth Term

HMS	216	Human Service Methods & Practice II	3
PSY	230	Abnormal Psychology	3
HMS	250	Fieldwork in Human Services I *	3
--	--	Elective (ANT, HMS, PSY or SOC)	3
			12

Sixth Term

HMS	251	Fieldwork in Human Services II *	3
HUM	--	Humanities Elective	3
POS	135	State and Local Government	3
			9

Total Credit Hours Required for the Program 63

* Please refer to selective admissions procedures.

HUMANITIES TRANSFER

Associate in Arts Degree
The Humanities Transfer program prepares students for transfer to a four-year college or university. It offers students a broad base of courses that focus on literature, philosophy, music, art and history as a foundation for future areas of specialization. This program also enables students to perceive relationships among disciplines.

Upon successful completion of this program, the student should be able to:
- Interpret the ways in which the Humanities influence cultures, societies and the lives of individuals.
- Discover the ways in which disciplines such as arts, history, philosophy, and language enrich the human condition.
- Listen, speak, read, write and make presentations on a college level.

- Identify personal values and recognize ethical choices as well as the social and environmental consequences of personal decisions.
- Demonstrate an awareness of and sensitivity for cultural heritage, cultural diversity, and diverse viewpoints.
- Apply critical thinking, problem-solving and study strategies
- Employ appropriate methods of research by assessing and evaluating information from a variety of credible sources.
- Transfer to an accredited college or university.

Courses chosen as electives depend upon the institution to which the student transfers. It is essential that the student consult with a faculty advisor for assistance in selecting courses. The students is also responsible for meeting with an admissions representative from the four-year institution to determine its transfer policies.

See General Education Requirements

Major Requirements

HIS	120	Western Civilization to 1600	
		or	3
HIS	125	Western Civilization 1600-1945	
HUM	201	Art Appreciation	
		or	3
HUM	221	Music Appreciation	
HUM	271	Intro. to Philosophy	3
HUM	- -	Literature Electives	6
		(HUM 231, HUM 235, HUM 241, HUM 245,	
		HUM 251, HUM 255, HUM 249)	
		Total Requirements	15

Suggested Electives
Consult with a transfer advisor.

Minimum Credit Hours Required for the Program   60

INDUSTRIAL ADMINISTRATION TRANSFER PROGRAM

Associate in Arts Degree
The Industrial Administration Transfer program is designed to prepare students to enter baccalaureate programs in Industrial Administration on the junior level.

Upon successful completion of this program, the student should be able to:
- Prepare financial statements in accordance with generally accepted accounting principles and evaluate the results by performing basic financial statement analysis.
- Utilize business principles to analyze problems and make decisions.
- Apply economic theory to analyze social, political, financial, and business problems.
- Utilize a personal computer to prepare documents using word processing, spreadsheet and database software and to perform basic navigation of the Internet.
- Transfer to an accredited college or university.

See General Education Requirements
Major Requirements

ACC	105	Financial Accounting	3
BUS	100	Introduction to Business	3
BUS	200	Macroeconomics	3
BUS	201	Microeconomics	3
IFT	110	Microcomputer Applications	3
			15

Suggested Electives
Courses selected as electives will depend upon the institution to which the student will transfer. It is essential that students consult with a Faculty Advisor for assistance in selecting elective courses. However, it is the responsibility of students to meet with an admissions representative from the four-year institution to determine its transfer policies.

Minimum Credit Hours Required for the Program   60

INDUSTRIAL MAINTENANCE TECHNICIAN

Associate in Applied Science Degree
The Industrial Maintenance Technician program is designed to prepare students for careers in diversified industries. Students who complete the program develop expertise in electronics, industrial electricity, pneumatics, fluid power, and related experience in HVAC, plumbing, welding and machining. The program also prepares students to take the National Occupational Competency Testing Institute (NOCTI) Electromechanical Technology examination. **College credit may be granted through <u>Tech Prep articulation</u> agreements between RACC and approved secondary schools.**

Upon successful completion of this program, the student should be able to:
- Demonstrate effective technical writing skills.
- Analyze and interpret electrical schematic, architectural, and industrial prints.
- Demonstrate proficiency in the use of the various hand tools used in the industrial maintenance field.
- Operate and repair commercial electricity, electronics, pneumatics, hydraulics, HVAC/R and mechanical systems.
- Perform soft and silver soldering, welding cutting operations, oxyacetylene welding and stick arc welding, gas metal arc welding of aluminum, mild steel, low alloy metal plate and pipe to American Welding Society (AWS) or Society of Manufacturing Engineers (SME) standards.
- Operate programmable logic controllers according to industrial standards.

Required Program of Study
First Year

Fall Term

ORI	100	College Success Strategies	1
MAT	160	College Algebra	3
HAC	110	Architectural Blueprint Reading	3
IMT	135	Electrical Circuit I: DC	4
			11

Winter Term

IMT	145	Electrical Circuit II: AC	4
MAT	165	Trigonometry	3
IMT	110	Fluid Systems I	3
			10

Spring Term

IMT	120	Electrical Systems I	3
IMT	100	Mechanical Systems I	4
IMT	210	Fluid Systems II	4
			11

Summer Session

COM	121	English Composition	3
HUM	- -	Humanities Elective	3
SOC	125	Individual and Society	3
			9

Second Year

Fall Term

IMT	220	Electrical Systems II	4
IMT	235	Digital Circuits	4
COM	141	Technical Writing	3
			11

Winter Term

IMT	130	Industrial Maintenance HVAC/R	4
IMT	275	Industrial Electronics	4
ENV	130	The Environment	3
			11

Spring Term

IMT	285	Principles of PLC	4
IMT	200	Mechanical Systems II	4
PHY	150	Applied Physics	4
			12

Total Credit Hours Required for the Program   75

Students enrolling in daytime courses offered at the Berks Career and Technology Center must present a Criminal Background Check and Child Abuse Clearance prior to the first day of class. For information on this program contact the Coordinator of Special Programs at 610-607-6219.

INFORMATION TECHNOLOGY
TRANSFER PROGRAM

Associate in Arts Degree

The Information Technology transfer program is designed to prepare students to enter baccalaureate programs in Information Technology on the junior level.

Upon successful completion of this program, the student should be able to:
- Demonstrate effective communication skills in writing and speaking in a business environment.
- Utilize business and management terminology and principles to analyze problems and make decisions.
- Prepare financial statements in accordance with generally accepted accounting principles and evaluate the results by performing basic financial statement analysis.
- Solve basic business problems as they pertain to computers.
- Formulate critical thinking to evaluate computing problems and explore options for their solution.
- Analyze problems with respect to the requirements of the computer and the required results.
- Plan detailed program logic to solve problems and convert the logic to a well-structured applications program utilizing pseudocode.
- Apply the structure of mathematics in relation to solving computer programming problems.
- Transfer to an accredited college or university.

See General Education Requirements

Major Requirements

ACC	105	Financial Accounting	3
BUS	100	Introduction to Business	3
BUS	200	Macroeconomics	3
		or	
BUS	201	Microeconomics	3
IFT	110	Microcomputer Applications	3
PRG	- -	Programming Language	
		PRG 120, PRG 140, PRG 150	3
			15

Suggested Electives

Courses selected as electives will depend upon the institution to which you will transfer. It is essential that you consult with a Faculty Advisor for assistance in selecting elective courses. However, it is the responsibility of students to meet with an admissions representative from the four-year institution to determine its transfer policies.

IFT	120		PRG	150
PRG	100		PRG	200
PRG	120		PRG	220
PRG	140			

Minimum Credit Hours Required for the Program   60

INFORMATION TECHNOLOGY
Computer Networking Concentration

Associate in Applied Science Degree

The Computer Networking concentration is designed to prepare graduates for employment in network support positions. Students will gain experience in installing, administering, supporting, and implementing local area networks in current platforms used by business and industry. Coursework will aid students in preparing to sit for various networking certification exams. **College credit may be granted through** Tech Prep articulation **agreements between RACC and approved secondary schools.**

Upon successful completion of this program, the student should be able to:
- Communicate effectively using appropriate computer technology.
- Install and troubleshoot microcomputers in a networked environment.
- Maintain the hardware and software in a networked environment.
- Describe the hardware and software needs in a modern business environment.
- Apply organizational, procedural, and systematic skills in the diagnosis of systems problems.
- Install and configure NetWare network operating system.
- Install and configure Microsoft network operating system.
- Administer, manage, and troubleshoot NetWare network operating system.
- Administer, manage, and troubleshoot Windows network operating system.
- Analyze, test, and propose solutions for problems relating to network cabling, hubs, servers, workstations, and other physical network devices.
- Analyze, test, and propose solutions relating to network devices.
- Analyze, test, and propose solutions for problems relating to network protocols, including the Internet (TCP/IP) protocol.
- Demonstrate effective communication skills in writing and speaking in a business environment.
- Utilize business management principles to analyze problems and make decisions.
- Prepare financial statements in accordance with generally accepted accounting principles and evaluate the results by performing basic financial statement analysis.
- Apply economic theory to analyze social, political, financial, and business problems.

Required Program of Study

First Term

IFT	100	Introduction to Information Technology	3
IFT	110	Microcomputer Applications	3
COM	121	English Composition	3
ORI	100	College Success Strategies	1
			10

Second Term

IFT	120	Advanced Microcomputer Applications	3
NET	100	Fundamentals of Networking	3
NET	105	Installation & Maintenance of PC Oper Syst	3
MAT	150	Foundations of Math	3
			12

Third Term

NET	110	Network Administration (NetWare)	3
NET	125	Installation & Maintenance of PC Hardware	3
BUS	100	Introduction to Business	3
SOC	125	The Individual and Society	3
			12

Fourth Term

NET	120	Server Administration (Windows)		3
BUS	106	Business Communications		3
BUS	200	Macroeconomics	(3)	
		or		3
BUS	201	Microeconomics	(3)	
				9

Fifth Term

NET	200	Network Technologies & Troubleshooting	3
NET	220	Advanced Server Administration (Windows)	3
HUM	- -	Humanities Elective	3
MGT	100	Principles of Management	3
			12

Sixth Term

ENV	130	The Environment	3
NET	230	TCP/IP	3
NET	240	Designing Systems for Client/Server Architecture	3
			9

Total Credit Hours Required for the Program	64

INFORMATION TECHNOLOGY
Computer Programming Concentration
Associate in Applied Science Degree

The Computer Programming concentration is designed to prepare graduates for employment in computer programming positions. Students will gain experience programming in both the microcomputer and mid-range computer environment with the ability to specialize in either platform. **College credit may be granted through Tech Prep articulation agreements between RACC and approved secondary schools.**

Upon successful completion of this program, the student should be able to:
- Solve basic business problems as they pertain to computers.
- Formulate critical thinking to evaluate computing problems and explore options for their solution.
- Apply effective approaches for problem solving and data modeling.
- Analyze problems with respect to the requirements of the computer and the required results.
- Plan detailed program logic to solve problems and convert the logic to a well-structured applications program utilizing pseudocode.
- Communicate effectively utilizing appropriate computer technology with programmers, analysts and management.
- In solving problems, apply the structure of mathematics and its relation and application to computers.
- Apply procedural and object oriented techniques to implement an interactive program design.
- Work effectively as a member of a team.

- Communicate effectively with computer professionals as well as non-technical clients.
- Demonstrate effective communication skills in writing and speaking in a business environment.
- Utilize business management principles to analyze problems and make decisions.
- Prepare financial statements in accordance with generally accepted accounting principles and evaluate the results by performing basic financial statement analysis.
- Apply economic theory to analyze social, political, financial, and business problems.

Required Program of Study

First Term

COM	121	English Composition	3
PRG	110	AS/400 Concepts and Operations	3
PRG	100	Introduction to Computer Programming	3
ORI	100	College Success Strategies	1
			10

Second Term

IFT	100	Introduction to Information Technology	3
IFT	110	Microcomputer Applications	3
MAT	150	Foundations of Math	3
PRG	120	COBOL	3
			12

Third Term

BUS	100	Introduction to Business	3
BUS	106	Business Communications	3
IFT	120	Advanced Microcomputer Applications	3
PRG	150	C++	3
			12

Fourth Term

ACC	105	Financial Accounting		3
BUS	200	Macroeconomics	(3)	
		or		3
BUS	201	Microeconomics	(3)	
PRG	140	Visual Basic		3
PRG	200	Systems Analysis & Design		3
				12

Fifth Term

ENV	130	The Environment	3
HUM	- -	Humanities Elective	3
PRG	- -	Programming Elective*	3
PRG	130	RPG IV	3
			12

Sixth Term

PRG	- -	Programming Elective*	3
PRG	160	JAVAScript	3
SOC	125	The Individual and Society	3
			9

Total Credit Hours Required for the Program	67

*The following courses qualify as a Programming Elective: PRG 220, PRG 230, PRG 240, PRG 250.

INFORMATION TECHNOLOGY
PC User Support Concentration
Associate in Applied Science Degree

The PC User Support concentration is designed to prepare graduates for employment as technicians in areas such as help desk and technical support. Students will gain experience in PC hardware and software support. Students will develop a high level of proficiency in the use of software applications as well as a broad overview of networking, desktop publishing, and web applications. Coursework will aid students in preparing to sit for

various certification exams. **College credit may be granted through Tech Prep articulation agreements between RACC and approved secondary schools.**

Upon successful completion of this program, the student should be able to:
- Demonstrate expert-level proficiency in the use of integrated office software (word processing, spreadsheet, database, presentation, windows).
- Communicate effectively using appropriate computer technology.
- Provide customer support.
- Create documents using desktop publishing software.
- Install and troubleshoot microcomputers in a networked environment.
- Maintain the hardware and software in a networked environment.
- Describe the hardware and software needs in a modern business environment.
- Analyze and resolve problems common to entry-level management personnel.
- Present technical information in oral, written, and graphic form, including use of microcomputers to manipulate content and access information.
- Identify fundamental elements of well-designed web sites.
- Apply math operations to solve fundamental business problems.
- Demonstrate effective communication skills in writing and speaking in a business environment.
- Utilize business management principles to analyze problems and make decisions.
- Prepare financial statements in accordance with generally accepted accounting principles and evaluate the results by performing basic financial statement analysis.
- Apply economic theory to analyze social, political, financial, and business problems.

Required Program of Study

First Term
IFT	100	Introduction to Information Technology	3
IFT	110	Microcomputer Applications	3
COM	121	English Composition	3
ORI	100	College Success Strategies	1
MAT	150	Foundations of Math	3
			13

Second Term
IFT	120	Advanced Microcomputer Applications	3
NET	100	Fundamentals of Networking	3
BUS	106	Business Communications	3
NET	105	Installation & Maintenance of PC Operating Systems	3
			12

Third Term
IFT	130	Expert Office Applications	3
NET	125	Installation & Maintenance of PC Hardware	3
SOC	125	The Individual and Society	3
HUM	- -	Humanities Elective	3
			12

Fourth Term
COM	165	Desktop Publishing	3
BUS	100	Introduction to Business	3
ACC	105	Financial Accounting	3
WEB	100	Web Design I	3
			12

Fifth Term
BUS	200	Macroeconomics	(3)	
		or		3
BUS	201	Microeconomics	(3)	
IFT	140	Integrating Office Applications		3
MGT	100	Principles of Management		3
IFT	200	Customer Service Principles		1
				10

Sixth Term
ENV	130	The Environment	3
IFT	210	Help Desk User Support	3
IFT	220	Current Issues in Computing	3
			9

Total Credit Hours Required for the Program   68

INFORMATION TECHNOLOGY
Web Site Development Concentration

Associate in Applied Science Degree

The Web Site Development concentration is designed to prepare graduates as web site developers. Students will gain experience in web site design, creation and implementation. They will also be able to maintain a web server. **College credit may be granted through Tech Prep articulation agreements between RACC and approved secondary schools.**

Upon successful completion of this program, the student should be able to:
- Identify principles of computer programming logic.
- Communicate effectively using appropriate computer technology.
- Utilize a writing style appropriate for an online writing audience.
- Create a web site using a variety of web authoring tools (software).
- Follow principles of good design in the planning and publishing of web sites.
- Describe multimedia applications appropriate for web sites.
- Launch a web site on a web server.
- Prepare documents using desktop publishing software.
- Employ the skills necessary to be an Internet site developer, designer or webmaster.
- Discuss electronic commerce concepts and practices.
- Identify terms used in electronic commerce and related technology.
- Discuss the global impact of electronic commerce on business.
- Demonstrate effective communication skills in writing and speaking in a business environment.
- Utilize business management principles to analyze problems and make decisions.
- Prepare financial statements in accordance with generally accepted accounting principles and evaluate the results by performing basic financial statement analysis.
- Apply economic theory to analyze social, political, financial, and business problems.

Required Program of Study

First Term
IFT	100	Introduction to Information Technology	3
IFT	110	Microcomputer Applications	3
WEB	100	Web Design I (HTML)	3
ORI	100	College Success Strategies	1
			10

Second Term
WEB	110	Web Design II (Dreamweaver)	3

NET	100	Fundamentals of Networking	3
NET	105	Installation & Maintenance of PC Operating Systems	3
PRG	100	Introduction to Computer Programming	3
			12

Third Term

WEB	210	Web Design Layout	3
WEB	215	Web Design Graphics	3
COM	121	English Composition	3
MAT	150	Foundations of Math	3
			12

Fourth Term

WEB	230	Web Databases (PHP/MySQL)	3
BUS	100	Introduction to Business	3
BUS	106	Business Communications	3
NET	120	Server Administration (NT)	3
			12

Fifth Term

WEB	220	Flash Animation	3
BUS	200	Macroeconomics	(3)
	or		3
BUS	201	Microeconomics	(3)
ENV	130	The Environment	3
SOC	125	The Individual and Society	3
			12

Sixth Term

WEB	200	E-Commerce	3
PRG	160	JAVASCRIPT	3
MGT	100	Principles of Management	3
HUM	- -	Humanities Elective	3
			12

| Total Credit Hours Required for the Program | 70 |

INFORMATION TECHNOLOGY
Computer Networking Concentration
College Credit Certificate

The Computer Networking concentration is designed to prepare graduates for employment in network support positions. It is designed for students who are working with computers and would like to expand their skills to include networking, as well as for students who currently have a bachelor's degree and desire a change of careers. Coursework will aid students in preparing to sit for various networking certification exams, such as NetWare, Windows 2000, and A+. Students may receive credit for certain courses if they can demonstrate or document proficiency.

Upon successful completion of this program, the student should be able to:
- Communicate effectively using appropriate computer technology.
- Install and troubleshoot microcomputers in a networked environment.
- Maintain the hardware and software in a networked environment.
- Describe the hardware and software needs in a modern business environment.
- Utilize business terminology and concepts.
- Apply organizational, procedural, and systematic skills in the diagnosis of systems problems.
- Install and configure NetWare network operating system.
- Install and configure Microsoft network operating system.
- Administer, manage, and troubleshoot NetWare network operating system.
- Administer, manage, and troubleshoot Windows network operating system.

- Analyze, test, and propose solutions for problems relating to network cabling, hubs, servers, workstations, and other physical network devices.
- Analyze, test, and propose solutions relating to network devices.
- Analyze, test, and propose solutions for problems relating to network protocols, including the Internet (TCP/IP) protocol.

Required Program of Study

IFT	100	Introduction to Information Technology	3
IFT	110	Microcomputer Applications	3
IFT	120	Advanced Microcomputer Applications	3
NET	100	Fundamentals of Networking	3
NET	105	Installation and Maintenance of PC Operating Systems	3
NET	110	Network Administration (NetWare)	3
NET	120	Server Administration (Windows)	3
NET	125	Installation and Maintenance of PCs	3
NET	200	Network Technologies & Troubleshooting	3
NET	210	Advanced Network Administration (NetWare)	3
NET	220	Advanced Server Administration (Windows)	3
NET	230	TCP/IP	3
NET	240	Designing Systems for Client/Server Architecture	3
Total Credit Hours Required for the Program			39

INFORMATION TECHNOLOGY
Computer Programming Concentration
College Credit Certificate

The Computer Programming concentration is designed to prepare graduates for employment in computer programming positions. It is designed for individuals who are working with computers and would like to expand their skills to include programming, as well as for students who currently have a bachelor's degree and desire a change of careers. Students may receive credit for certain courses if they can demonstrate or document proficiency.

Upon successful completion of this program, the student should be able to:
- Solve basic business problems as they pertain to computers.
- Formulate critical thinking to evaluate computing problems and explore options for their solution.
- Apply effective approaches for problem solving and data modeling.
- Analyze problems with respect to the requirements of the computer and the required results.
- Plan detailed program logic to solve problems and convert the logic to a well-structured applications program utilizing pseudocode.
- Demonstrate the ability to communicate effectively utilizing appropriate computer technology with programmers, analysts, and managers.
- Demonstrate an understanding of the structure of mathematics and its relation and application to computers.
- Apply procedural and object oriented techniques to implement and interactive program designs.
- Work effectively as a member of a team.
- Communicate effectively with computer professionals as well as non-technical clients.

Required Program of Study

IFT	100	Introduction to Information Technology	3
IFT	110	Microcomputer Applications	3
IFT	120	Advanced Microcomputer Applications	3

PRG	100	Introduction to Computer Programming	3
PRG	110	AS/400 Concepts and Operations	3
PRG	120	COBOL	3
PRG	130	RPG IV	3
PRG	140	Visual Basic	3
PRG	150	C++	3
PRG	160	JAVAScript	3
PRG	200	Systems Analysis & Design	3

Students will select any **two** of the following:			6
PRG	220	Advanced COBOL	
PRG	230	Advanced RPG IV	
PRG	240	Advanced Visual Basic	
PRG	250	Advanced C++	——

Total Credit Hours Required for the Program   39

INFORMATION TECHNOLOGY
PC User Support Concentration
College Credit Certificate

The PC User Support concentration is designed to prepare graduates as technicians in areas such as help desk and technical support. It is designed for individuals who are working with computers and would like to expand their skills to include PC hardware and software support, as well as for students who currently have a bachelor's degree and desire a change of careers. Coursework will aid students in preparing to sit for various Microsoft Office User Specialist and A+ certification exams. Students may receive credit for certain courses if they can demonstrate or document proficiency.

Upon successful completion of this program, the student should be able to:
- Demonstrate expert-level proficiency in the use of integrated office software (word processing, spreadsheet, database, windows).
- Communicate effectively using appropriate computer technology.
- Provide customer support.
- Create documents using desktop publishing software.
- Install and troubleshoot microcomputers in a networked environment.
- Maintain the hardware and software in a networked environment.
- Describe the hardware and software needs in a modern business environment.
- Analyze and resolve problems common to entry-level management personnel.
- Utilize business terminology and concepts.
- Present technical information in oral, written, and graphic form, including use of microcomputers to manipulate content and access information.
- Identify fundamentals elements of well-designed web sites.

Required Program of Study
COM	165	Desktop Publishing	3
IFT	100	Introduction to Information Technology	3
IFT	110	Microcomputer Applications	3
IFT	120	Advanced Microcomputer Applications	3
IFT	130	Expert Office Applications	3
IFT	140	Integrating Office Applications	3
IFT	200	Customer Service Principles	1
IFT	210	Help Desk User Support	3
IFT	220	Current Issues in Computing	3
NET	100	Fundamentals of Networking	3
NET	105	Installation and Maintenance of PC Operating Systems	3
NET	125	Installation & Maintenance of PC Hardware	3
WEB	100	Web Design I	3

Total Credit Hours Required for the Program   37

INFORMATION TECHNOLOGY
Web Site Development Concentration
College Credit Certificate

The Web Site Development concentration is designed to prepare graduates as web site developers. Students will gain experience in web site design, creation, and implementation. They will also be able to maintain a web server. The program is also designed for individuals working in advertising and marketing as well as for students who currently have a bachelor's degree and desire a change of careers. Students may receive credit for certain courses if they can demonstrate or document proficiency.

Upon successful completion of this program, the student should be able to:
- Identify principles of computer programming logic.
- Communicate effectively using appropriate computer technology.
- Utilize a writing style appropriate for an online writing audience.
- Create a web site using a variety of web authoring tools (software).
- Follow principles of good design in the planning and publishing of web sites.
- Describe multimedia applications appropriate for web sites.
- Launch a web site on a web server.
- Prepare documents using desktop publishing software.
- Utilize business terminology and concepts.
- Employ the skills necessary to be an Internet site developer, designer, or webmaster.
- Apply electronic commerce concepts and practices.
- Identify terms used in electronic commerce and related technology.
- Discuss the global impact of electronic commerce on business.

Required Program of Study
IFT	100	Introduction to Information Technology	3
IFT	110	Microcomputer Applications	3
WEB	100	Web Design I (HTML)	3
WEB	115	Web Design II (Dreamweaver)	3
NET	100	Fundamentals of Networking	3
NET	105	Installation & Maintenance of PC Operating Systems	3
PRG	100	Introduction to Computer Programming	3
WEB	210	Web Design Layout	3
WEB	215	Web Design Graphics	3
WEB	230	Web Databases PHP/MySQL	3
NET	120	Server Administration (NT)	3
WEB	220	Flash Animation	3
WEB	200	E-Commerce	3
PRG	160	JAVAScript	3

Total Credit Hours Required for the Program   39

LABORATORY SCIENCE
Laboratory Technician
Associate in Applied Science Degree

This curriculum is designed to prepare students for careers as laboratory technicians in industry. Graduates may seek employment as technicians in environmental science, chemistry, research, or quality control laboratories.

Upon successful completion of this program, the student should be able to:
- Demonstrate effective technical writing skills.
- Apply statistical methods for accuracy, precision, and error analysis as they pertain to quality control, measured results, and calculated results.
- Utilize computer applications, including spreadsheets, word processing, and online communications, for processing data.
- Explain basic scientific principles related to the behavior of matter at the atomic and macroscopic levels in chemical, biological, and mechanical systems.
- Describe the purpose and theory of operation of various types of laboratory apparatus, glassware, and instrumentation.
- Demonstrate proficiency in the use of various types of laboratory apparatus, glassware, and instrumentation.

Required Program of Study

First Term

ORI	100	College Success Strategies	1
BIO	150	Biology I	4
MAT	165	Trigonometry	3
IFT	110	Microcomputer Applications	3
CHE	110	Introduction to the Laboratory	1
			12

Second Term

BIO	280	Microbiology	4
CHE	150	Chemistry I	4
COM	121	English Composition	3
			11

Third Term

CHE	155	Chemistry II	4
CHE	220	Introduction to Organic Chemistry	5
			9

Fourth Term

CAR	105	Professionalism on the Job	1
COM	141	Technical Writing	3
CHE	275	Instrumental Analysis	4
MAT	210	Statistics	3
			11

Fifth Term

SOC	125	The Individual and Society	3
PHY	240	Physics I	4
CHE	290	Cooperative Education I	3
			10

Sixth Term

HUM	--	Humanities Elective	3
PHY	245	Physics II	4
CHE	291	Cooperative Education II	3
			10

Total Credit Hours Required for the Program   63

LABORATORY SCIENCE
Nanoscience Technology
Associate in Applied Science Degree

This curriculum, in conjunction with the Pennsylvania State University Nanofabrication Manufacturing Technology Program, prepares students for careers as skilled technicians for manufacturers utilizing nanofabrication technology. This discipline includes biotechnology, automation, miniaturization, integration, optics, robotics, and information systems.

Upon successful completion of this program, the student should be able to:
- Demonstrate effective technical writing skills.
- Apply statistical methods for accuracy, precision, and error analysis as they pertain to quality control, measured results, and calculated results.
- Utilize computer applications, including spreadsheets, word processing, and online communications, for processing data.
- Explain basic scientific principles related to the behavior of matter at the atomic and macroscopic levels in chemical, biological, and mechanical systems.
- Demonstrate necessary skills to function as a manufacturing technician in nanofabrication.
- Demonstrate proficiency in operating state of the art nanofabrication equipment.
- Demonstrate proficiency in identifying component and system level problems.
- Apply the concepts of the nanofabrication process related to advanced electronic and the latest nano-level manufacturing technologies.

Required Program of Study

First Term

ORI	100	College Success Strategies	1
BIO	150	Biology I	4
MAT	165	Trigonometry	3
IFT	110	Microcomputer Applications	3
			11

Second Term

CHE	150	Chemistry I	4
COM	121	English Composition	3
ELT	100	DC/AC Circuits	4
			11

Third Term

COM	141	Technical Writing	3
ENV	130	The Environment	3
MAT	210	Statistics	3
PHY	150	Applied Physics	4
			13

Fourth Term

ELT	200	Digital Elect/Solid State Device	4
HUM	--	Humanities Elective	3
NSC	200	Nanofabrication Seminar	1
SOC	125	The Individual and Society	3
			11

Fifth & Sixth Terms   **Capstone Semester**
(Semester at Penn State-Main Campus)

NSC	211	Materials, Safety & Equipment Overview for Nanofabrication	3
NSC	212	Basic Nanofabrication Process	3
NSC	213	Thin Film in Nanofabrication	3
NSC	214	Lithography for Nanofabrication	3
NSC	215	Materials Modification in Nanofabrication	3
NSC	216	Characterization, Packaging, & Testing of Nanofabricated Structures	3
			18

Total Credit Hours Required for the Program   64

LABORATORY SCIENCE
Nanoscience Technology
Associate in Applied Science Degree
2+2+2 Millersville University Transfer
This curriculum, in conjunction with the Pennsylvania State University Nanofabrication Manufacturing Technology Program, prepares students for careers as skilled technicians for manufacturers utilizing nanofabrication technology. This discipline includes biotechnology, automation, miniaturization, integration, optics, robotics and information systems.

Upon successful completion of this program, the student should be able to:
- Demonstrate effective technical writing skills.
- Apply statistical methods for accuracy, precision and error analysis as they pertain to quality control, measured results and calculated results.
- Utilize computer applications, including spreadsheets, word processing and online communications for processing data.
- Explain basic scientific principles related to the behavior of matter at the atomic and macroscopic levels in chemical, biological and mechanical systems.
- Demonstrate necessary skills to function as a manufacturing technician in nanofabrication.
- Demonstrate proficiency in operating state of the art nanofabrication equipment.
- Demonstrate proficiency in identifying component and system level problems.
- Apply the concepts of the nanofabrication process related to advanced electronic and the latest nano-level manufacturing technologies.

This curriculum in conjunction with The Pennsylvania State University Nanofabrication Manufacturing Technology Program prepares students to enter the B.S. in Industrial Technology with a concentration in Nanofabrication Manufacturing Technology at Millersville University.

2-HIGH SCHOOL/RACC DUAL ENROLLMENT
You can earn college credit for the following courses through your high school and the Berks Career and Technology Center or Lancaster County Career and Technology Center.

COM	121	English Composition*	3
MAT	220	Calculus I*	4
ELT	100	DC/AC Circuits**	4
ELT	200	Digital Elect/Solid State Devices**	4
		Total Credits	15

 *Earned through your local high school
**Earned through your local CTC

FIRST TERM
BIO	150	Biology I	4
IFT	110	Microcomputer Applications	3
ORI	100	College Success Strategies	1
ENV	130	The Environment	3
			11

SECOND TERM
PHY	240	Physics I	4
PSY	130	General Psychology	3
COM	151	Fundamentals of Speech	3
			10

THIRD TERM
COM	141	Technical Writing	3
PHY	245	Physics II	4
CHE	150	Chemistry I	4
			11

FOURTH TERM
MAT	210	Statistics	3
HUM	- -	Humanities Elective	3
SOC	125	The Individual and Society	3
NSC	200	Nanofabrication Seminar	1
			11

CAPSTONE SEMESTER
Second Year (Winter, Spring Terms)
at Penn State-Main Campus
NSC	211	Materials, Safety, Health Issues & Equipment Basic to Nanofabrication	3
NSC	212	Basic Nanofabrication Process	3
NSC	213	Thin Film Utilization in Nanofabrication	3
NSC	214	Lithography	3
NSC	215	Materials Modification in Nanofabrication	3
NSC	216	Characterization, Packaging, & Testing in Nanofabrication	3
			18

Total Credit Hours Required for the Program   71

LABORATORY SCIENCE
Nanoscience Technology
Associate in Applied Science Degree
2+2+2 Penn State Berks College Transfer
This curriculum, in conjunction with the Pennsylvania State University Nanofabrication Manufacturing Technology Program, prepares students for careers as skilled technicians for manufacturers utilizing nanofabrication technology. This discipline includes biotechnology, automation, miniaturization, integration, optics, robotics and information systems.

Upon successful completion of this program, the student should be able to:
- Demonstrate effective technical writing skills.
- Apply statistical methods for accuracy, precision and error analysis as they pertain to quality control, measured results and calculated results.
- Utilize computer applications, including spreadsheets, word processing and online communications for processing data.
- Explain basic scientific principles related to the behavior of matter at the atomic and macroscopic levels in chemical, biological and mechanical systems.
- Demonstrate necessary skills to function as a manufacturing technician in nanofabrication.
- Demonstrate proficiency in operating state of the art nanofabrication equipment.
- Demonstrate proficiency in identifying component and system level problems.
- Apply the concepts of the nanofabrication process related to advanced electronic and the latest nano-level manufacturing technologies.

This curriculum prepares students to enter the B.S. in Science, General Science option with a concentration in Nanoscience at Penn State Berks College.

2-HIGH SCHOOL/RACC DUAL ENROLLMENT
You can earn college credit for the following courses through your high school and the Berks Career and Technology Center or Lancaster County Career and Technology Center.

COM	121	English Composition*	3
MAT	220	Calculus I*	4
ELT	100	DC/AC Circuits**	4

ELT	200	Digital Elect/Solid State Devices**	4
ORI	100	College Success Strategies** (optional)	1
		Total Credits	16

*Earned through your local high school
**Earned through your local CTC

FIRST YEAR

FALL TERM
BIO	150	Biology I	4
PHYS	211	General Physics Mechanics*	4
IFT	110	Microcomputer Applications	3
			11

WINTER TERM
CHE	150	Chemistry I	4
MAT	221	Calculus II	4
HUM	--	Humanities Elective	3
			11

SPRING TERM
COM	141	Technical Writing	3
PHY	245	Physics II	4
MAT	210	Statistics	3
			11

SECOND YEAR

FALL TERM
PHYS	212	General Physics: Electricity & Magnetism*	4
ENV	130	The Environment	3
NSC	200	Nanofabrication Seminar	1
SOC	125	The Individual and Society	3
			11

CAPSTONE SEMESTER
Second Year (Winter, Spring Terms) at Penn State-Main Campus

NSC	211	Materials, Safety, Health Issues & Equipment Basic to Nanofabrication	3
NSC	212	Basic Nanofabrication Process	3
NSC	213	Thin Film Utilization in Nanofabrication	3
NSC	214	Lithography	3
NSC	215	Materials Modification in Nanofabrication	3
NSC	216	Characterization, Packaging, & Testing in Nanofabrication	3
			18

Total Credit Hours Required for the Program   77

LABORATORY ASSISTANT

College Credit Certificate

The Laboratory Assistant Certificate Program prepares graduates to work in a laboratory under the supervision of a technician, analyst, or scientist. Laboratory assistants perform many routine laboratory tasks such as sample log-in, data entry, sample preparation, prior to analysis, and preparation of chemical reagents. The certificate program provides the student with a broad-based science education applicable to a variety of laboratory settings. The courses required for the certificate are either prerequisites for the Laboratory Technician Associate of Applied Science Program, or are required for that program, so students may continue their education to the laboratory technician level with no loss of credit.

Upon successful completion of this program, the student should be able to:
- Demonstrate effective technical writing skills.
- Apply elementary algebraic and statistical methods to physical science problems.
- Utilize computer applications, including spreadsheets, word processing, and online communications.
- Explain introductory concepts in chemistry, biology, and physics.
- Demonstrate proficiency in the use of common laboratory glassware and apparatus.

Required Program of Study

First Term
ORI	100	College Success Strategies	1
CHE	110	Introduction to the Laboratory	1
MAT	210	Statistics	3
CHE	120	Principles of Chemistry	4
			9

Second Term
COM	121	English Composition	3
IFT	110	Microcomputer Applications	3
BIO	150	Biology I	4
			10

Third Term
COM	141	Technical Writing	3
PHY	120	Principles of Physics	4
BIO	280	Microbiology	4
			11

Total Credit Hours Required for the Program   30

LABORATORY SCIENCE
Nanoscience Technology
College Credit Certificate

This curriculum, in conjunction with the Pennsylvania State University Nanofabrication Manufacturing Technology Program, prepares students for careers as skilled technicians for manufacturers utilizing nanofabrication technology. This discipline includes biotechnology, automation, miniaturization, integration, optics, robotics, and information systems.

Upon successful completion of this program, the student should be able to:
- Apply statistical methods for accuracy, precision, and error analysis as they pertain to quality control, measured results, and calculated results.
- Utilize computer applications, including spreadsheets, word processing, and online communications, for processing data.
- Explain basic scientific principles related to the behavior of matter at the atomic and macroscopic levels in chemical, biological, and mechanical systems.
- Demonstrate necessary skills to function as a manufacturing technician in nanofabrication.
- Demonstrate proficiency in operating state of the art nanofabrication equipment.
- Demonstrate proficiency in identifying component and system level problems.
- Apply the concepts of the nanofabrication process related to advanced electronic and the latest nano-level manufacturing technologies.

Required Program of Study

First Term
BIO	150	Biology I	4
MAT	165	Trigonometry	3
			7

Second Term
CHE	150	Chemistry I	4
ELT	100	DC/AC Circuits	4
			8

Third Term
MAT	210	Statistics	3
PHY	150	Applied Physics	4
			8

Fourth Term

ELT	200	Digital Electronics/Solid State Device	4
NSC	200	Nanofabrication Seminar	1
IFT	110	Microcomputer Applications	3
			8

Fifth & Sixth Terms
(Semester at Penn State-Main Campus)

NSC	211	Materials, Safety & Equipment Overview for Nanofabrication	3
NSC	212	Basic Nanofabrication Process	3
NSC	213	Thin Film in Nanofabrication	3
NSC	214	Lithography for Nanofabrication	3
NSC	215	Materials Modification in Nanofabrication	3
NSC	216	Characterization, Packaging, & Testing of Nanofabricated Structures	3
			18

Total Credit Hours Required for the Program 48

LEGAL SECRETARY

Associate in Applied Science Degree

The Legal Secretary program is designed to provide students with the competencies necessary to obtain employment as legal secretaries or legal word processing specialists. Graduates are prepared to work for a private law firm, legal department of a corporation, insurance company, bank, deed and title company, or for a government agency–local, state, or federal. **College credit may be granted through Tech Prep articulation agreements between RACC and approved secondary schools.**

Upon successful completion of this program, the students should be able to:

- Demonstrate effective written communication skills in writing and speaking in a business environment.
- Apply math operations to solve fundamental business problems.
- Utilize legal terminology, rules and procedures to recognize legal implications of business transactions and occurrences.
- Demonstrate proficiency in keyboarding of business letters, memos, reports, and tables at a high level of speed and accuracy.
- Demonstrate a high degree of accuracy in applying correct grammar, usage, and style when transcribing legal documents from dictated audio tapes.
- Apply basic language skills associated with the parts of speech, sentence formations, numerical expression, capitalization, punctuation, and word division rules to business correspondence.
- Transcribe from various kinds of original communication, such as handwritten copy, printed copy, and voice-recorded dictation.
- Proofread and edit typed/keyed copy, including transcription of machine dictation, with a high degree of accuracy and correctness.
- Apply principles of supervision and management in order to obtain maximum productivity from computerized systems in both traditional and automated offices, with appropriate emphasis on people, procedures, and equipment.
- Work independently, with others, or in self-directed work teams to demonstrate effective interpersonal and problem-solving skills, attitudes, and work habits that contribute to organizational goals.
- Use appropriate office procedures in the areas of records information management, calculator, telephone communications, incoming and outgoing mail, meetings and conferences, travel arrangements, and simulated projects.

- Demonstrate speedwriting skills to take notes from oral dictation and produce mailable copy.
- Recognize the changing nature of technology and adapt to new equipment and procedures while retaining the most appropriate traditional office practices.
- Use word processing, spreadsheet, database, presentation, and Internet skills to complete office tasks.

Required Program of Study

First Term

BUS	105	Business English	3
ENV	130	The Environment	3
OFT	110	Keyboarding I	3
ORI	100	College Success Strategies	1
			10

Second Term

BUS	110	Business Mathematics	3
MGT	140	Administrative Office Management	3
COM	121	English Composition	3
OFT	111	Keyboarding II	3
			12

Third Term

BUS	106	Business Communications	3
OFT	112	Keyboarding III	3
OFT	120	Machine Dictation and Transcription	3
			9

Fourth Term

HUM	- -	Humanities Elective	3
OFT	212	Office Procedures	3
OFT	213	Word Processing I	3
OFT	230	Legal Terminology and Transcription	3
			12

Fifth Term

OFT	210	Speedwriting I	3
OFT	214	Word Processing II	3
OFT	231	Advanced Legal Transcription	3
SOC	125	The Individual and Society	3
			12

Sixth Term

BUS	230	Business Law	3
CAR	105	Professionalism on the Job	1
OFT	211	Speedwriting II	
		or	3
--	--	Business Elective	
OFT	232	Legal Office Procedures	3
OFT	290	Cooperative Education I	3
			13

Total Credit Hours Required for the Program 68

The following courses qualify as a Business Elective: ACC 105, ACC 110, BUS 100, BUS 220, BUS 230, OFT 210, OFT 211.

LEGAL SECRETARY

College Credit Certificate

The Legal Secretary Certificate program is designed to provide students who already possess advanced secretarial skills with the competencies necessary to obtain employment as legal secretaries or legal word processing specialists. All course work may later be applied to an Associate in Applied Science degree if the student desires. Prior secretarial experience is required for entry to this program.

Upon successful completion of this program, the students should be able to:
- Demonstrate effective communication skills in writing and speaking in a business environment.
- Apply math operations to solve fundamental business problems.
- Utilize legal terminology, rules and procedures to recognize legal implications of business and personal transactions and occurrences.
- Apply basic language skills associated with the parts of speech, sentence formations, numerical expression, capitalization, punctuation, and word division rules to business correspondence.
- Proofread and edit typed/keyed copy, including transcription of machine dictation, with a high degree of accuracy and correctness.
- Work independently, with others, or in self-directed work teams to demonstrate effective interpersonal and problem-solving skills, attitudes, and work habits that contribute to organizational goals.
- Use appropriate office procedures in the areas of records information management, calculator, telephone communications, incoming and outgoing mail, meetings and conferences, travel arrangements, and simulated projects.
- Recognize the changing nature of technology and adapt to new equipment and procedures while retaining the most appropriate traditional office practices.
- Demonstrate a high level of accuracy in applying correct grammar, usage, and style when transcribing legal documents from dictated audio tapes.
- Use word processing, spreadsheet, database, presentation, and Internet skills to complete office tasks.

Required Program of Study

First Term

BUS	105	Business English	3
OFT	212	Office Procedures	3
OFT	213	Word Processing I	3
OFT	230	Legal Terminology & Transcription	3
ORI	100	College Success Strategies	1
			13

Second Term

BUS	110	Business Mathematics	3
COM	121	English Composition	3
OFT	214	Word Processing II	3
OFT	231	Advanced Legal Transcription	3
			12

Third Term

BUS	106	Business Communications	3
BUS	230	Business Law	3
OFT	232	Legal Office Procedures	3
			9

Total Credit Hours Required for the Certificate 34

LEGAL SECRETARIAL SKILLS

Office Technology Diploma

The Legal Secretarial Skills Diploma is designed to provide students who already possess advanced secretarial skills with the competencies necessary to obtain employment as legal secretaries or legal work processing specialists. Prior secretarial experience is required for entry to this program.

Upon successful completion of this program, the students should be able to:
- Apply basic language skills associated with the parts of speech, sentence formations, numerical expression, capitalization, punctuation, and word division rules to business correspondence.
- Proofread and edit typed/keyed copy, including transcription of machine dictation, with a high degree of accuracy and correctness.
- Work independently, with others, or in self-directed work teams to demonstrate effective interpersonal and problem-solving skills, attitudes, and work habits that contribute to organizational goals.
- Demonstrate a high degree of accuracy in applying correct grammar, usage, and style when transcribing legal documents from dictated audio tapes.
- Recognize the changing nature of technology and adapt to new equipment and procedures while retaining the most appropriate traditional office practices.
- Demonstrate speedwriting skills to take notes from oral dictation and produce mailable copy.
- Use word processing, spreadsheet, database, presentation, and Internet skills to complete office tasks.
- Use appropriate office procedures in the areas of records information management, calculator, telephone communications, incoming and outgoing mail, meetings and conferences, travel arrangements, and simulated projects.

Required Program of Study

First Session

OFT	213	Word Processing I	3
BUS	105	Business English	3
			6

Second Session

OFT	214	Word Processing II	3
OFT	230	Legal Terminology and Transcription	3
			6

Third Session

OFT	212	Office Procedures	3
OFT	231	Advanced Legal Transcription	3
			6

Fourth Session

OFT	210	Speedwriting I	3
OFT	232	Legal Office Procedures	3
			6

Total Credit Hours Required for the Diploma 24

LIBERAL ARTS TRANSFER
Associate in Arts Degree

The Liberal Arts Transfer program prepares students for transfer to a four-year college or university. It offers students a broad base of courses and experiences as a foundation for future areas of specialization. This program also enables students to make connections across disciplines

Upon successful completion of this program, the student should be able to:
- Listen, speak, read, write and make presentations on a college level.
- Identify personal values and recognize ethical choices as well as the social and environmental consequences of personal decisions.
- Demonstrate an awareness of and sensitivity for cultural heritage, cultural diversity and diverse viewpoints.
- Evaluate the ways in which the arts, history, economics, politics, social institutions, sciences and technologies shape societies.
- Demonstrate critical thinking, problem-solving and study strategies.
- Demonstrate mathematical and information technology skills as appropriate for a future specialization.
- Employ appropriate methods of research by assessing and evaluating information from a variety of credible sources.
- Transfer to an accredited college or university.

Courses chosen as electives depend upon the institution to which the student transfers. It is essential that the student consult with a faculty advisor for assistance in selecting courses. The student is responsible for meeting with an admissions representative from the four-year institution to determine its transfer policies.

See General Education Requirements

Elective Requirements - 28 credits

Minimum Credit Hours Required for the Program   60

MACHINE TOOL TECHNOLOGY
Associate in Applied Science Degree

The Machine Tool Technology curriculum is designed to provide the student with above-entry-level knowledge and skills required of personnel entering the positions of parts inspector, machine operator, and machining technician. The graduate is prepared with educational experiences conducive to employment consideration as a machinist or as a tool and die maker trainee. Other career options for graduates of this program are dependent on experience and skills development. These positions include: instrument maker, production machine set-up person, computerized numerically controlled machine tool operator and computerized numerically controlled machine tool programmer. Related careers requiring additional educational experiences include various positions within management or positions such as mechanical technician, mechanical technologist, mechanical engineer, machine tool designer, tool and die designer and others. **College credit may be granted through Tech Prep articulation agreements between RACC and approved secondary schools.**

Upon successful completion of this program, the student should be able to:
- Demonstrate effective technical writing skills.
- Analyze, interpret and prepare mechanical drawings using AutoCAD.
- Demonstrate proficiency in the use of handtools, semi-precision, precision layout and measuring tools.

- Operate the machine tools used in manufacturing according to National Institute Metalworking Skills (NIMS) Level 1 and selected NIMS Level 2 standards.
- Demonstrate proficiency in writing part programs, setup and operating CNC milling and turning centers according to industrial standards.
- Demonstrate proficiency in designing parts, generating toolpaths and CNC code in 2D and 3D using MasterCAM software

Required Program of Study

First Year/Fall Semester
MTT 165	Machine Theory I	3
MTT 120	Machine Tool Mathematics I	3
		6

First Year/Fall Term
ORI 100	College Success Strategies	1

First Year/Winter Term
COM 121	English Composition	3

First Year/Spring Semester
MTT 131	Engineering Graphics with Blueprint	3
MTT 125	Machine Tool Mathematics II	3
		6

First Year/Spring Term
COM 141	Technical Writing	3

Second Year/Fall Semester
MTT 151	Introduction to Metalworking	3
MTT 170	Machine Theory II	3
		6

Second Year/Fall Term
SOC 125	Individual and Society	3

Second Year/Winter Term
PHY 150	Applied Physics	4

Second Year/Spring Semester
MTT 152	Basic Power Tools	2
MTT 135	Blueprint Reading II	3
		5

Second Year/Spring Term
HUM - -	Humanities Elective	3

Third Year/Fall Semester
MTT 156	Turning Technology	3
EGR 106	Engineering Graphics II	2
		5

Third Year/Spring Semester
MTT 211	Milling Technology	3
MTT 140	Blueprint Reading III	3
		6

Fourth Year/Fall Semester
MTT 221	Grinding Technology	3
MTT 261	Basic CNC Programming Theory/ Milling & Turning	3
		6

Fourth Year/Spring Semester
MTT 240	Meterology	3
MTT 265	CNC Fixture Design	2
		5

Fifth Year/Fall Semester
MTT 271	Advanced CNC Milling	3
MTT 281	MasterCAM Programming I & II	2
		5

Fifth Year/Spring Semester
MTT 276	Advanced CNC Turning	3
MTT 286	MasterCAM Programming III	2
		5

Sixth Year/Fall Semester

MTT	201	EDM Theory-Wire & Conversion	3

Total Credit Hours Required for the Program	75

Students enrolling in daytime courses offered at the Berks Career and Technology Center must present a Criminal Background Check and Child Abuse Clearance prior to the first day of class.

MACHINE TOOL TECHNOLOGY (Apprenticeship)

College Credit Certificate

This curriculum is designed to prepare the student for an entry-level position as a machine parts inspector, machine operator, or machinist trainee. The program is designed to run concurrently with a work-based apprenticeship experience. Emphasis is on theory and labs that reinforce skills learned in the workplace. Interested individuals should refer to the Machine Tool Technology – Associate in Applied Science degree regarding preparation for additional career opportunities in the machine tool field.

Upon successful completion of this program, the student should be able to:
- Analyze, interpret, and prepare mechanical drawings using AutoCAD.
- Demonstrate proficiency in the use of handtools, semi-precision, precision layout, and measuring tools.
- Operate the machine tools used in manufacturing according to National Institute Metalworking Skills (NIMS) Level 1 standards.
- Write basic CNC milling and CNC turning programs to industrial standards.

Required Program of Study

First Year/Fall Semester

MTT	165	Machine Theory I	3
MTT	120	Machine Tool Mathematics I	3
			6

First Year/Spring Semester

MTT	131	Engineering Graphics with Blueprint	3
MTT	125	Machine Tool Mathematics II	3
			6

Second Year/Fall Semester

MTT	151	Introduction to Metalworking	3
MTT	170	Machine Theory II	3
			6

Second Year/Spring Semester

MTT	152	Basic Power Tools	2
MTT	135	Blueprint Reading II	3
			5

Third Year/Fall Semester

MTT	156	Turning Technology	3
EGR	106	Engineering Graphics II	2
			5

Third Year/Spring Semester

MTT	211	Milling Technology	3
MTT	140	Blueprint Reading III	3
			6

Fourth Year/Fall Semester

MTT	221	Grinding Technology	3
MTT	261	Basic CNC Programming Theory/ Milling & Turning	3
			6

Fourth Year/Spring Semester

MTT	240	Meterology	3

MTT	265	CNC Fixture Design	2
			5

Total Credit Hours Required for the Program	45

Students enrolling in daytime courses offered at the Berks Career and Technology Center must present a Criminal Background Check and Child Abuse Clearance prior to the first day of class.

MACHINE TOOL TECHNOLOGY (Apprenticeship)(Daytime Sequence)

College Credit Certificate

This curriculum is designed to prepare the student for an entry-level position as a machine parts inspector, machine operator, or machinist trainee. The program is designed to run concurrently with a work-based apprenticeship experience. Emphasis is on theory and labs that reinforce skills learned in the workplace. Interested individuals should refer to the Machine Tool Technology – Associate in Applied Science degree regarding preparation for additional career opportunities in the machine tool field.

Upon successful completion of this program, the student should be able to:
- Analyze, interpret, and prepare mechanical drawings using AutoCAD.
- Demonstrate proficiency in the use of handtools, semi-precision, precision layout, and measuring tools.
- Operate the machine tools used in manufacturing according to National Institute Metalworking Skills (NIMS) Level 1 standards.
- Write basic CNC milling and CNC turning programs to industrial standards.

Required Program of Study

First Year/Fall Term

MTT	120	Machine Tool Mathematics I	3
MTT	165	Machine Theory I	3
MTT	151	Introduction to Metalworking	3
			9

First Year/Winter Term

MTT	170	Machine Theory II	3
MTT	156	Turning Technology	3
			6

First Year/Spring Term

MTT	131	Engineering Graphics with Blueprint	3
MTT	125	Machine Tool Mathematics II	3
			6

Second Year/Fall Term

MTT	211	Milling Technology	2
MTT	135	Blueprint Reading II	3
EGR	106	Engineering Graphics II	2
			8

Second Year/Winter Term

MTT	221	Grinding Technology	3
MTT	140	Blueprint Reading III	3
MTT	265	CNC Fixture Design	2
			8

Second Year/Spring Term

MTT	240	Meterology	3
MTT	261	Basic CNC Programming Theory/ Milling & Turning	3
			6

Total Credit Hours Required for the Program	45

Students enrolling in daytime courses offered at the Berks Career and Technology Center must present a Criminal Background Check and Child Abuse Clearance prior to the first day of class. For information contact the Coordinator of Special Programs at (610) 607-6219.

MECHANICAL ENGINEERING TECHNOLOGY TRANSFER

Associate in Arts Degree

This program is designed to prepare students to enter a baccalaureate program in mechanical engineering technology on the junior level.

Upon successful completion of this program, the student should be able to:
- Demonstrate effective oral and written communication skills in the expression of scientific concepts.
- Apply mathematical methods to scientific problems.
- Apply basic scientific principles and concepts in the solution of problems and laboratory experiments.
- Demonstrate an ability to collect, organize, analyze, evaluate, and present data.
- Demonstrate an ability to retrieve data and search relevant literature.
- Demonstrate the ability to use specific scientific apparatus and instrumentation.
- Explain basic principles of statics and dynamics to mechanical systems.
- Explain basic principles of thermal phenomena, electricity, magnetism, and optics.
- Transfer to an accredited college or university.

See General Education Requirements

Major Requirements

MAT	220	Calculus I	4
MAT	221	Calculus II	4
PHY	240	Physics I	4
PHY	245	Physics II	4
			16

Suggested Electives

Courses selected as electives will depend upon the institution to which you will transfer. It is essential that you consult with a Faculty Advisor for assistance in selecting courses. However, it is the responsibility of students to meet with an admissions representative from the four-year institution to determine its transfer policies.

CHE	150
CHE	155
MAT	222

Minimum Credit Hours Required for the Program   60

MEDICAL LABORATORY TECHNICIAN

Associate in Applied Science Degree

This curriculum is intended primarily to educate technicians for work in clinical, diagnostic laboratories. Medical Laboratory Technicians perform tests under the direction of a physician who specializes in diagnosing the causes and nature of disease. Medical Laboratory Technicians also work under the supervision of scientists doing research on new drugs or the improvement of laboratory techniques. Graduates may seek employment with hospitals, independent laboratories, physicians, clinics, public health agencies, pharmaceutical firms, research institutions and industrial laboratories. This program is fully accredited by the National Accrediting Agency for Clinical Laboratory Science. Graduates are therefore eligible to take national certifying exams to become registered Medical Laboratory Technicians and Clinical Laboratory Technicians. **College credit may be granted through Tech Prep articulation agreements between RACC and approved secondary schools. Please refer to Selective Admissions Procedures.**

Upon successful completion of the program, the entry level Medical Laboratory Technician should be able to:
- Follow established procedures for collection and processing biological specimens for analysis and perform assigned analytical tests or procedures.
- Recognize factors that affect measurements and results and take appropriate action according to predetermined protocols; recognize abnormal results, correlate them with disease processes and refer them to designated supervisory personnel.
- Operate instruments within the scope of training utilizing established protocols and quality control checks, recognizing equipment malfunctions and notifying supervisory personnel when appropriate.
- Report information such as test results, reference range and specimen requirements to authorized sources.

- Perform routine quality control and maintain accurate records. Recognize out-of-control results and notify supervisory personnel.
- Demonstrate a professional attitude in interpersonal communication skills with patients, peers, supervisors, other health care professional, and the public.

Required Program of Study

First Term

COM	121	English Composition	3
BIO	250	Anatomy and Physiology I	4
MAT	110	Algebra II	3
CHE	110	Introduction to the Laboratory	1
ORI	100	College Success Strategies	1
			12

Second Term

CHE	150	Chemistry I	4
BIO	255	Anatomy and Physiology II	4
MLT	120	Basic Immunology	2
COM	131	Composition and Literature	
	or		3
COM	141	Technical Writing	
			13

Third Term

CHE	220	Introduction to Organic Chemistry	5
HUM	--	Humanities Elective	3
BIO	280	Microbiology	4
			12

Fourth Term

CHE	275	Instrumental Analysis	4
MLT	211	Clinical Laboratory Techniques	3
SOC	125	The Individual and Society	(3)
	or		
SOC	130	Sociology	(3)
	or		3
PSY	130	General Psychology	(3)
HEA	220	Clinical Implications of Laboratory Tests	1
			11

Fifth Term*

MLT	220	Clinical Hematology	4
MLT	221	Clinical Chemistry	4
MLT	222	Clinical Urinalysis	1
			9

Sixth Term*

MLT	230	Clinical Blood Banking & Immunology	4
MLT	231	Clinical Microbiology	4
MLT	232	Clinical Coagulation	1
MLT	233	Clinical Serology	1
			10

Total Credit Hours Required for the Program   67
* Fifth & Sixth terms are full-time

MEDICAL TECHNOLOGY TRANSFER

Associate in Arts Degree

This program is designed to prepare the student to enter a baccalaureate program in Medical Laboratory Technology on the junior level.

See General Education Requirements

Major Requirements

BIO	150	Biology I	4
CHE	150	Chemistry I	4
CHE	155	Chemistry II	4
MAT	180	Precalculus	3
			15

Suggested Electives

Courses selected as electives will depend upon the institution to which you will transfer. It is essential that you consult with a Faculty Advisor for assistance in selecting elective courses. However, it is the responsibility of students to meet with an admissions representative from the four-year institution to determine its transfer policies.

BIO	155		CHE	110
BIO	205		MAT	210
BIO	250		MAT	220
BIO	255		PHY	240
BIO	280		PHY	245

Minimum Credit Hours Required for the Program   60

MEDICAL SECRETARY

Associate in Applied Science Degree

The Medical Secretary program is designed to provide students with the competencies necessary to obtain employment as medical secretaries or medical transcriptionists. Graduates are prepared to work in doctors' offices, hospitals, or clinics, the medical department of a large industrial firm or insurance company, or the offices of distributors of pharmaceutical products, surgical instruments, or hospital supplies. **College credit may be granted through Tech Prep articulation agreements between RACC and approved secondary schools.**

Upon successful completion of this program, the students should be able to:

- Demonstrate effective communication skills in writing and speaking in a business environment.
- Apply math operations to solve fundamental business problems.
- Demonstrate proficiency in keyboarding of business letters, memos, reports, and tables at a high level of speed and accuracy.
- Demonstrate a high degree of accuracy in applying correct grammar, usage, and style when transcribing documents from dictated audio tapes that use medical terminology.
- Apply basic language skills associated with the parts of speech, sentence formations, numerical expression, capitalization, punctuation, and word division rules to business correspondence.
- Transcribe from various kinds of original communication, such as handwritten copy, printed copy, and voice-recorded dictation.
- Proofread and edit typed/keyed copy, including transcription of machine dictation, with a high degree of accuracy and correctness.
- Apply principles of supervision and management in order to obtain maximum productivity from computerized systems in both traditional and automated offices, with appropriate emphasis on people, procedures, and equipment.
- Work independently, with others, or in self-directed work teams to demonstrate effective interpersonal and problem-solving skills, attitudes, and work habits that contribute to organizational goals.
- Use appropriate office procedures in the areas of records information management, calculator, telephone communications, incoming and outgoing mail, meetings and conferences, travel arrangements, and simulated projects.
- Demonstrate speedwriting skills to take notes from oral dictation and produce mailable copy.
- Recognize the changing nature of technology and adapt to new equipment and procedures while retaining the most appropriate traditional office practices.
- Use word processing, spreadsheet, database, presentation, and Internet skills to complete office tasks.

Required Program of Study

First Term

BUS	105	Business English	3
ENV	130	The Environment	3
OFT	110	Keyboarding I	3
ORI	100	College Success Strategies	1
			10

Second Term

BUS	110	Business Mathematics	3
MGT	140	Administrative Office Management	3
COM	121	English Composition	3
OFT	111	Keyboarding II	3
			12

Third Term

BUS	106	Business Communications	3
OFT	112	Keyboarding III	3
OFT	120	Machine Dictation and Transcription	3
			9

Fourth Term

HUM	--	Humanities Elective	3
OFT	212	Office Procedures	3
OFT	213	Word Processing I	3
OFT	240	Medical Terminology and Transcription	3
			12

Fifth Term

OFT	210	Speedwriting I	3
OFT	214	Word Processing II	3
OFT	241	Advanced Medical Transcription	3
SOC	125	The Individual and Society	3
			12

Sixth Term

CAR	105	Professionalism on the Job	1
OFT	211	Speedwriting II **or**	3
--	--	Business Elective (see list below)	

OFT	242	Medical Office Procedures	3
OFT	290	Cooperative Education I	3
			10

Total Credit Hours Required for the Program   65

The following courses qualify as a Business Elective: ACC 105, ACC 110, BUS 100, BUS 220, BUS 230, OFT 210, OFT 211.

MEDICAL SECRETARY
College Credit Certificate
The Medical Secretary Certificate program is designed to provide students who already possess advanced secretarial skills with the competencies necessary to obtain employment as medical secretaries or medical transcriptionists. All course work may later be applied to an Associate in Applied Science degree if the student desires. Prior secretarial experience is required for entry to this program.

Upon successful completion of this program, the students should be able to:
• Demonstrate effective written communication skills in writing and speaking in a business environment.
• Apply math operations to solve fundamental business problems.
• Apply basic language skills associated with the parts of speech, sentence formations, numerical expression, capitalization, punctuation, and word division rules to business correspondence.
• Apply basic language skills associated with the parts of speech, sentence formations, numerical expression, capitalization, punctuation, and word division rules to business correspondence.
• Work independently, with others, or in self-directed work teams to demonstrate effective interpersonal and problem-solving skills, attitudes, and work habits that contribute to organizational goals.
• Use appropriate office procedures in the areas of records information management, calculator, telephone communications, incoming and outgoing mail, meetings and conferences, travel arrangements, and simulated projects.
• Recognize the changing nature of technology and adapt to new equipment and procedures while retaining the most appropriate traditional office practices.
• Use word processing, spreadsheet, database, presentation, and Internet skills to complete office tasks.
• Demonstrate a high degree of accuracy in applying correct grammar, usage, and style when transcribing documents from dictated audio tapes that use medical terminology.
• Proofread and edit typed/keyed copy, including transcription of machine dictation, with a high degree of accuracy and correctness.

Required Program of Study
First Term
BUS	105	Business English	3
OFT	212	Office Procedures	3
OFT	213	Word Processing I	3
OFT	240	Medical Terminology & Transcription	3
ORI	100	College Success Strategies	1
			13

Second Term
COM	121	English Composition	3
OFT	214	Word Processing II	3
OFT	241	Advanced Medical Transcription	3
			9

Third Term
BUS	106	Business Communications	3
BUS	110	Business Mathematics	3
OFT	242	Medical Office Procedures	3
			9

Total Credit Hours Required for the Certificate   31

MEDICAL SECRETARIAL SKILLS
Office Technology Diploma
The Medical Secretarial Skills Diploma designed to provide students who already possess advanced secretarial skills with the competencies necessary to obtain employment as medical secretaries or medical word processing specialists.   Prior secretarial experience is required for entry to this program.

Upon successful completion of this program, the students should be able to:
• Use word processing, spreadsheet, database, presentation, and Internet skills to complete office tasks.
• Apply basic language skills associated with the parts of speech, sentence formations, numerical expression, capitalization, punctuation, and word division rules to business correspondence.
• Demonstrate a high degree of accuracy in applying correct grammar, usage, and style when transcribing documents from dictated audio tapes that use medical terminology.
• Proofread and edit typed/keyed copy, including transcription of machine dictation, with a high degree of accuracy and correctness.
• Work independently, with others, or in self-directed work teams to demonstrate effective interpersonal and problem-solving skills, attitudes, and work habits that contribute to organizational goals.
• Use appropriate office procedures in the areas of records information management, calculator, telephone communications, incoming and outgoing mail, meetings and conferences, travel arrangements, and simulated projects.
• Demonstrate speedwriting skills to take notes from oral dictation and produce mailable copy.
• Work independently, with others, or in self-directed work teams to demonstrate effective interpersonal and problem-solving skills, attitudes, and work habits that contribute to organizational goals.

Required Program of Study
First Session
OFT	213	Word Processing I	3
BUS	105	Business English	3
			6

Second Session
OFT	214	Word Processing II	3
OFT	240	Medical Terminology and Transcription	3
			6

Third Session
OFT	212	Office Procedures	3
OFT	241	Advanced Medical Transcription	3
			6

Fourth Session
OFT	210	Speedwriting I	3
OFT	242	Medical Office Procedures	3
			6

Total Credit Hours Required for the Diploma   24

MEDICAL TRANSCRIPTIONIST

Medical Transcriptionist Diploma

The Medical Transcriptionist Diploma Program is designed to provide students with the skills necessary to obtain employment as medical transcriptionists. Graduates are prepared to work in doctors' offices, hospitals or clinics with the option of transcribing at home. All course work may later be applied to a Certificate or an Associate in Applied Science degree if the student desires.

Upon successful completion of this program, the students should be able to:

• Demonstrate proficiency in keyboarding of business letters, memos, reports, and tables at a high degree of speed and accuracy.
• Apply basic language skills associated with the parts of speech, sentence formations, numerical expression, capitalization, punctuation, and word division rules to business correspondence.
• Transcribe from various kinds of original communication, such as handwritten copy, printed copy, and voice-recorded dictation.
• Proofread and edit typed/keyed copy, including transcription of machine dictation, with a high degree of accuracy and correctness.
• Work independently, with others, or in self-directed work teams to demonstrate effective interpersonal and problem-solving skills, attitudes, and work habits that contribute to organizational goals.
• Demonstrate a high degree of accuracy in applying correct grammar, usage, and style when transcribing documents from dictated audio tapes that use medical terminology

Required Program of Study

Fall Term
OFT	110	Keyboarding I	3
BUS	105	Business English	3

Winter Term
OFT	111	Keyboarding II	3

Spring Term
OFT	112	Keyboarding III	3
OFT	120	Machine Dictation & Transcription	3

Fall Term
OFT	240	Medical Terminology & Transcription	3

Winter Term
OFT	241	Advanced Medical Transcription	3

Total Credit Hours Required for the Diploma   21

NURSING

Associate in Applied Science Degree

The Associate Degree Nursing Program prepares students for positions as beginning staff level nurses in acute and long term care facilities. Upon successful completion of the program, students will receive an Associate in Applied Science (AAS) degree. The graduate will be eligible to sit for the state licensure examination (NCLEX-RN) to become a registered nurse. Nursing students attend classes on the college campus. Selected clinical learning experiences are provided at a variety of health care agencies with direct guidance of the nursing faculty. The purpose of these experiences is to provide the student with the opportunity to apply classroom learning in direct patient care situations. The nursing curriculum is approved by the State Board of Nursing of the Commonwealth of Pennsylvania, and accredited by the National League for Nursing Accreditation Commission. **College credit may be granted through** <u>Tech Prep articulation</u> **agreements between RACC and approved secondary schools. Please refer to Selective Admissions Procedures.**

Upon successful completion of the program the Associate Degree Nurse graduate should be prepared to:

• Apply expanding knowledge base to evaluate human responses which reflect health status of clients of any age with a focus on adults.
• Provide all clients with safe nursing care using the nursing process in a variety of health care settings.
• Manage care for a group of clients through collaboration with members of the health care team.
• Integrate professional standards and values into the practice of nursing. Exemplify effective communication skills when providing care and when advocating for client, nursing and self.

Required Program of Study

First Term
ORI	100	College Success Strategies	1
COM	121	English Composition	3
BIO	250	Anatomy and Physiology I**	4
NUR	120	Nursing I	5
			13

Second Term
COM	131	Composition and Literature	
	or		3
COM	141	Technical Writing	
BIO	255	Anatomy and Physiology II	4
NUR	130	Nursing II	5
			12

Third Term
MAT	150	Foundations of Math	3
CHE	150	Chemistry I	
	or		4
BIO	280	Microbiology	
NUR	140	Nursing III	6
			13

Fourth Term
PSY	130	General Psychology	3
SOC	130	Sociology	3
NUR	220	Nursing IV	6
			12

Fifth Term
NUR	230	Nursing V	6
HUM	--	Humanities Elective	3
			9

Sixth Term*
NUR	240	Nursing VI	9

Total Credit Hours Required for the Program   68

* Sixth Term is full time

** This course fulfills the natural/physical sciences requirement.

*** The required placement test result for math should be Algebra II. If the student does not place at the Algebra II level, than he/she must take math through and including Algebra I prior to the first nursing clinical course.

PRACTICAL NURSING
College Credit Certificate
The Practical Nursing certificate program is full-time and twelve months in length. It prepares the student to provide direct client care in all settings where nursing takes place under the supervision of a Registered Nurse, licensed physician or licensed dentist. The graduate will participate in assessment, planning, implementation and evaluation of nursing care in cooperation with other members of the health care team. Upon graduation students are eligible to take the NCLEX-PN licensing examination. The Practical Nursing Program is approved by the State Board of Nursing of the Commonwealth of Pennsylvania and accredited by the National League for Nursing Accreditation Commission. **College credit may be granted through Tech Prep articulation agreements between RACC and approved secondary schools. Please refer to Selective Admissions Procedures.**

Upon successful completion of the Practical Nursing Program, the graduate will be able to:
• Provide safe nursing care along with physical comfort and psychological and spiritual support by utilizing the nursing process.
• Practice effective communication techniques in settings with clients, clients' families and members of the health care team.
• Seek self-improvement and growth by active participation in education and vocational development.
• Function within the legal and ethical parameters of the law governing practical nursing.

Required Program of Study
First Term

PNP	110	Body Structure & Function	3
PNP	115	Medical/Surgical Nursing I for the Practical Nurse	1
PNP	120	Nursing Skills I for the Practical Nurse	2
PNP	122	Nursing Skills II for the Practical Nurse	3
PNP	125	Contemporary Practical Nursing I	1
PNP	130	Nutrition for Practical Nursing	1
PNP	135	Community Issues in Practical Nursing	1
			13

Second Term

PNP	140	Pharmacology for Practical Nursing	3
PNP	145	Medical/Surgical Nursing II for the Practical Nurse	8
			11

Third Term

PNP	150	Growth & Development for Practical Nursing	1
PNP	155	Maternity Care for Practical Nursing	3
PNP	160	Pediatric Care for Practical Nursing	3
PNP	165	Medical/Surgical Nursing III for the Practical Nurse	4
			11

Fourth Term

PNP	170	Medical/Surgical Nursing IV for the Practical Nurse	7
PNP	175	Contemporary Practical Nursing II	1
PNP	180	Intravenous Therapy for Practical Nursing	1
			9

Total Credit Hours Required for the Program   44
PNP is full-time only.

PRE-LAW/PUBLIC ADMINISTRATION TRANSFER PROGRAM
Associate in Arts Degree
This program is designed to prepare the student to enter a baccalaureate program in Pre-Law on the junior level.

Upon successful completion of this program, the student should be able to:
• Identify and analyze sources of information and propaganda in the United States.
• Identify and describe the concept of evolutionary democracy and the development of the federal system of government in the United States.
• Apply the U. S. Constitution to the criminal justice process, including such issues as arrest, search and seizure, self-incrimination, and the right to counsel.
• Describe the federal and state courts of the United States and discuss the operation of these courts and the new areas of law the courts are entering.
• Explain the types of local governments in the United States and describe what they do, problems facing them, and new approaches these governments are developing to do the tasks in their charge.
• Compare the characteristics of a democracy to a dictatorship and analyze the political system of the United States.
• Summarize the elements and characteristics of interpersonal communication.
• Transfer to an accredited college or university.

See General Education Requirements

Major Requirements

HIS	110	History of the United States I	3
	or	HIS 115 History of the U.S. II	3
LAW	150	Legal Procedures	3
POS	130	American Government	3
POS	135	State & Local Government	3
PSY	120	Interpersonal Relations & Communications	3
			15

Suggested Electives
Courses selected as electives will depend upon the institution to which you will transfer. It is essential that students consult with a Faculty Advisor for assistance in selecting elective courses. However, it is the responsibility of students to meet with an admissions representative from the four-year institution to determine its transfer policies.

ANT 135	HIS 115	PSY 130	SOC 210
ANT 140	HIS 120	PSY 235	SOC 220
BUS 230	HIS 125	SOC 120	SOC 225
ECO 250	HIS 130	SOC 125	SOC 230
GEO 101	LAW 185	SOC 130	SST 110
HIS 110	PSY 232		

Minimum Credit Hours Required for the Program   60

PROFESSIONAL CHILDCARE
College Credit Certificate
This program is designed for individuals seeking employment as child care aides, family child care providers, nannies, and pre-school teacher aides. Credits are transferable to the Associate Degree in Early Childhood Education. After obtaining an A.A.S. in either the Teaching or the Management option and working in the child care field for two years, graduates can seek employment as teachers in child care centers. Many courses are transferable to four-year institutions.

Upon successful completion of this program, the student should be able to:

- Plan and set up an environment designed to support and encourage the development of the creative process in inclusive Early Care and Education settings.
- Employ appropriate, observable assessment and behavior guidance techniques in inclusive early care and education settings.
- Analyze and relate historical, social, economic, and philosophic basis for current practice and trends in early childhood education.
- Develop and implement health, safety, and nutrition policies that comply with regulatory standards.
- Apply knowledge of infant/toddler development including the unique program needs to develop age appropriate curriculum and environment.
- Utilize the Code of Ethics for Early Childhood Education to demonstrate the development of professional attitude.
- Utilize effective communication skills with children, colleagues, supervisors, and parents.

Required Program of Study

First Term

ORI	100	College Success Strategies	1
COM	121	English Composition	3
ECE	115	Creative Art for the Developing Child	3
ECE	140	Health, Safety and Nutrition in Early Childhood Education	3
			10

Second Term

PSY	120	Interpersonal Relations & Communications	3
ECE	125	Introduction to Early Childhood Education	3
PSY	130	General Psychology	3
SOC	220	The Family	3
			12

Third Term

ECE	120	Observation and Interpretation of Child Behavior	3
ECE	--	Elective	3
ECE	150	Early Childhood Practicum	3
			9

Total Credit Hours Required for the Program		31

Suggested Electives

ECE	145	In-home Childcare/Professional Nanny	3
ECE	227	Infant/Toddler Care and Education	3
ECE	240	School-Age Childcare	3

PROFESSIONAL PILOT

(NO NEW ADMISSIONS IN THIS PROGRAM AT THIS TIME.)
Associate in Applied Science Degree
This program prepares students to obtain entry-level employment in the aviation industry. It provides both the flight and ground school requirements for the private and commercial certificates and instrument rating. Students obtain their flight training from a college recognized flight school. Graduates of this program may become charter pilots, flight instructors, corporate pilots, and employees of commuter airlines. They are also prepared to transfer to college or universities which offer the bachelor's degree in aviation science. The granting of this degree is based upon the student's successful completion of required coursework, and obtaining of FAA Private and Commercial Certificates with instrument ratings. **An FAA medical certificate is required for enrollment.**

Upon successful completion of this program, the student should be able to:
- Demonstrate effective technical writing skills.
- Communicate clearly and concisely, both written and verbally, using accepted air traffic control terminology and context.
- Safely, efficiently, and legally pilot, light reciprocating engine single and multi-engine passenger aircraft in visual and instrument flight conditions.
- Demonstrate proficiency in flight planning using appropriate resources such as aeronautical publications, weather information, and aircraft performance data such that the planned flight is within the capabilities of both the aircraft and the pilot and appropriate contingencies are identified to compensate for unplanned events.
- Analyze the inter-relationships and workings of complex engine and aircraft systems and human factors such that aircraft flight safety will not be compromised.
- Use research sources and techniques to research aircraft accident reports, draw conclusions, and present the results orally and in writing.

Required Program of Study

First Year/Fall Term

AVI	100*	Flight Theory I	3
AVI	105*	Flight Practical I (Airplane)	2
COM	121	English Composition	3
ENV	130	The Environment	3
ORI	100	College Success Strategies	1
			12

First Year/Winter Term

AVI	110*	Flight Theory II	3
AVI	115*	Flight Practical II (Airplane)	3
AVI	120	Meteorology for Pilots	3
AVI	123	Aviation Safety	3
MAT	110	Algebra II	3
			12

First Year/Spring Term

AVI	125	Airframes and Engines	3
AVI	130	Aircraft Systems	3
PHY	150	Applied Physics	4
			10

Second Year/Fall Term

AVI	200*	Flight Theory III	3
AVI	205*	Flight Practical III (Airplane)	2
AVI	210	Aerodynamics	3
COM	141	Technical Writing	3
			11

Second Year/Winter Term

AVI	215	Aviation Law and Regulations		3
AVI	225	Flight Theory IV (optional)	(3)	
AVI	230	Flight Practical IV (Airplane) (optional)	(2)	
MGT	100	Principles of Management		3
SOC	125	The Individual and Society		3
			(14)	9

Second Year/Spring Term

AVI	220	Aviation Physiology/Psychology		3
AVI	235*	Multiengine Flight Theory/Practical		2
HUM	--	Humanities Elective		3
IFT	110	Microcomputer Applications	(3)	
	OR			3
IFT	120	Advanced Microcomputer Applications	(3)	
				11

Total Credit Hours Required for the Program	(72)	67

PSYCHOLOGY TRANSFER PROGRAM
Associate in Arts Degree
This program is designed to prepare the student to enter a baccalaureate program in Psychology on the junior level.

See General Education Requirements
Courses selected as electives will depend upon the institution to which you will transfer. It is essential that students consult with a Faculty Advisor for assistance in selecting elective courses. However, it is the responsibility of students to meet with an admissions representative from the four-year institution to determine its transfer policies.

Upon successful completion to this program, the student should be able to:
- Describe the discipline of psychology and differentiate between the various sub-fields within psychology.
- Discuss various theories of psychology as they relate to behavior and mental disorders.
- Identify the various theories of development across the life cycle.
- Apply language skills learned to interpersonal relationships and intra-personal awareness.
- Demonstrate knowledge of the relationship between psychology and physical health.
- Analyze physical, cognitive, and social-emotional development of young children.
- Identify the various theories that explain personality development.
- Summarize the basic features of research methods in psychology.
- Transfer to an accredited college/university.

Major Requirements
PSY	120	Interpersonal Relations & Communications	3
PSY	130	General Psychology	3
PSY	210	Child Psychology	3
	or	SOC 130 Sociology	
	or	PSY 214 Psychology of Adult & Aging	
PSY	220	Mental Health	3
PSY	230	Abnormal Psychology	3
			15

Suggested Electives

ANT 135	LAW 150	PSY 216	SOC 220
ANT 140	MAT 210	PSY 225	SOC 225
BIO 120	POS 130	PSY 235	SOC 230
BIO 270	POS 135	PSY 240	SPA 101
HMS 110	PSY 210	SOC 125	SPA 102
HMS 125	PSY 212	SOC 130	SST 110
HMS 240	PSY 214	SOC 210	

RESPIRATORY CARE
Associate in Applied Science Degree
The Associate's Degree program in Respiratory Care prepares the student to assume responsible positions as part of the Health Care team. The graduate will be eligible to sit for the National Entry Examination, administered by the National Board for Respiratory Care (N.B.R.C.). Respiratory Care students participate in various classroom, laboratory and clinical experiences. The laboratory provides students the opportunity for hands-on experience in preparation for clinical practicum. The classroom courses give the student the foundational knowledge in Respiratory Care. The Respiratory Care program is accredited by the Committee on Accreditation for Respiratory Care (COARC) in cooperation with the Commission on Accreditation of Allied Health Education Programs (CAAHEP) and Council for Higher Education

Accreditation (CHEA). **College credit may be granted through <u>Tech Prep articulation</u> agreements between RACC and approved secondary schools. Please refer to Selective Admissions Procedures.**

Upon successful completion of the Associate's Degree program in Respiratory Care, the graduate should be able to:
- Provide, under medical direction, treatment, management, diagnostic evaluation, and care to patients with deficiencies and abnormalities of the cardiorespiratory system.
- Administer the therapeutic use of the following: medical gases and administration apparatus, environmental control systems, humidification, aerosols, medications, ventilatory support, bronchopulmonary resuscitation and airway management.
- Demonstrate behavior consistent with acceptable professional conduct standards, such as appearance, quality of work, quantity of work, continuing education, human relations skills, leadership skills, reading skills, writing skills and verbal communication skills.

Required Program of Study
First Term (Summer)
ORI 100	College Success Strategies		1
COM 121	English Composition		3
CHE 120	Principles of Chemistry		4
			8

Second Term (Fall)
COM 131	Composition & Literature		
	or		3
COM 141	Technical Writing		
MAT 110	Algebra II		3
SOC 125	The Individual and Society	(3)	
	or		
SOC 130	Sociology	(3)	
	or		3
PSY 130	General Psychology	(3)	
			9

Third Term (Winter)
COM 151	Fundamentals of Speech		
	or		3
HUM - -	Humanities Elective		
BIO 250	Anatomy & Physiology I		4
RES 110	Orientation to Respiratory Care		1
			8

Fourth Term (Spring)
BIO 255	Anatomy & Physiology II		4
BIO 280	Microbiology		4
			8

* Fifth Term (Summer)
RES 200	Cardiopulmonary Anatomy & Physiology		1
RES 201	Respiratory Care I		6
RES 212	Pharmacology		2
			9

* Sixth Term (Fall)
RES 225	Clinical Practicum I		5
RES 226	Respiratory Care II		3
			8

* Seventh Term (Winter)
RES 235	Clinical Practicum II		4
RES 236	Respiratory Care III		6
			10

*Eighth Term (Spring)
RES 245	Clinical Practicum III		7
RES 246	Respiratory Care IV		1
			8

Total Credit Hours Required for the Program   68
* Fifth thru Eighth terms - full-time only
This program is accredited by the Committee on the Accreditation for Respiratory Care (COARC).

RESPIRATORY THERAPIST
College Credit Certificate

This curriculum is designed for respiratory therapist to advance their career opportunities to become eligible to sit for the registry examinations offered through the National Board for Respiratory Care. Career opportunities may include supervision, management, education, sales, diagnostics, and critical and neonatal respiratory care. Students participate in classroom, independent study and various clinical experiences in hospitals, home care, and rehabilitation facilities, adult and neonatal intensive care units, doctor's offices, and pulmonary function laboratories. The Respiratory Therapist Certificate Program is accredited by the Committee on Accreditation for Respiratory Care (COARC), in cooperation with the Commission on Accreditation of Allied Health Education Programs (CAAHEP) and Council for Higher Education Accreditation (CHEA).

Upon successful completion of the certificate program, the student should be able to:
- Review, collect, and recommend obtaining additional patient data. The Therapist evaluates all data to determine the appropriateness of prescribed respiratory care.
- Activity participates in the development of the patient's Respiratory Care Treatment Program.
- Assist the physician in performing special procedures in the clinical laboratory, procedure room or operating room.
- Initiate and conduct therapeutic procedures to achieve one or more specific objectives.

Required Program of Study

First Term(Fall)
RES	301	Advanced Diagnostics	8

Second Term (Winter)
RES	302	Critical Respiratory Care	8

Third Term (Spring)
RES	303	Rehabilitation & Home Care	6

Fourth Term (Summer)
RES	304	Neonatal & Pediatric Respiratory Care	8
RES	342	Advanced Topics in Respiratory Care	2
			10

Total Credit Hours Required for the Program   32

RETAIL MANAGEMENT CERTIFICATE
College Credit Certificate

The Retail Management certificate program is designed to prepare individuals for a career in retailing or wholesaling or to strengthen the skills and knowledge of individuals who are working in the field. Career opportunities include sales manager, department manager, store manager, or assistant manager. All coursework may later be applied to an Associate in Applied Science degree if the student desires.

Upon successful completion of the program, the student should be able to:
- Utilize business management principles to analyze problems and make decisions.
- Apply human resources management principles to analyze problems and make decisions concerning human resources.
- Apply supervision skills.
- Apply the methods and tools of modern retail management.
- Utilize the methods and tools of sales.
- Utilize a personal computer to prepare documents using word processing, spreadsheet, and database software and to perform basic navigation of the Internet.
- Prepare financial statements in accordance with generally accepted accounting principles and evaluate the results by performing basic financial statement analysis.
- Demonstrate effective communication skills in writing and speaking in a business environment.
- Develop a marketing plan for a product, using the fundamental elements of the marketing mix.
- Apply the law to recognize legal implications of business and personal transactions and occurrences.

Required Program of Study
ACC	105	Financial Accounting	3
BUS	100	Introduction to Business	3
BUS	210	Principles of Sales	3
BUS	106	Business Communications	3
BUS	220	Principles of Marketing	3
BUS	230	Business Law	3
IFT	110	Microcomputer Applications	3
COM	121	English Composition	3
MGT	100	Principles of Management	3
MGT	200	Human Resources Management	3
MGt	210	Supervisory Management	3
MGT	220	Retail Management	3
ORI	100	College Success Strategies	1

Total Credit Hours Required for the Certificate   37

Students should consult with an advisor to assure proper sequencing of courses.

SMALL BUSINESS MANAGEMENT
College Credit Certificate

The Small Business Management certificate program is designed to strengthen the skills and knowledge of individuals wishing to own and/or operate a small business. Acquiring this expertise will allow the entrepreneur a competitive edge in the marketplace. All coursework may later be applied to the Associate in Applied Science degree if the student desires.

Upon successful completion of the program, the student should be able to:
- Utilize business management principles to analyze problems and make decisions.

- Apply human resources management principles to analyze problems and make decisions concerning human resources.
- Develop and implement a plan for starting a new, small business.
- Utilize a personal computer to prepare documents using word processing, spreadsheet, and database software and to perform basic navigation of the Internet.
- Prepare financial statements in accordance with generally accepted accounting principles and evaluate the results by performing basic financial statement analysis.
- Utilize financial tools and techniques to maximize a firm's long-term value.
- Demonstrate effective communication skills in writing and speaking in a business environment.
- Develop a marketing plan for a product, using the fundamental elements of the marketing mix.
- Apply the law to recognize legal implications of business and personal transactions.

Required Program of Study

ACC	105	Financial Accounting	3
ACC	210	Financial Management	3
BUS	100	Introduction to Business	3
BUS	106	Business Communications	3
BUS	220	Principles of Marketing	3
BUS	230	Business Law	3
IFT	110	Microcomputer Applications	3
COM	121	English Composition	3
MGT	100	Principles of Management	3
MGT	200	Human Resources Management	3
MGT	230	Small Business Management	3
ORI	100	College Success Strategies	1
--	--	Business Elective	3

Total Credit Hours Required for the Certificate   37

Students should consult with an advisor to assure proper sequencing of courses.

The following courses qualify as a Business Elective: ACC 110, ACC 220, ACC 230, BUS 210, IFT 120, MGT 210, MGT 220, MGT 240, MGT 250, MGT 255, MGT 260, MGT 290 with CAR 105.

SOCIAL WORK TRANSFER PROGRAM

Associate in Arts Degree
This program is designed to prepare the student to enter a baccalaureate program in Social Work on the junior level.

See General Education Requirements
Courses selected as electives will depend upon the institution to which you will transfer. It is essential that students consult with a Faculty Advisor for assistance in selecting elective courses. However, it is the responsibility of students to meet with an admissions representative from the four-year institution to determine its transfer policies.

Upon successful completion of this program, the student should be able to:
• Summarize the history and nature of social work in the U. S.
• Analyze and articulate cultural values and contributions of diverse groups.
• Identify models of human development and group dynamics.
• Develop effective use of interpersonal skills and relationships.

• Transfer to an accredited college/university offering the Bachelor of Social Work (B.S.W.) degree.

Major Requirements

ANT	140	Cultural Anthropology	3
PSY	130	General Psychology	3
SOC	130	Sociology	3
HMS	110	Introduction to Human Services	3
HMS	240	Poverty and Social Welfare Policy	3
			15

Suggested Electives

ANT 135	COM 151	POS 135	PSY 225	SPA 101
ANT 200	HUM 271	PSY 120	PSY 235	SPA 102
ANT 255	HUM 275	PSY 210	PSY 240	SST 110
BIO 120	LAW 150	PSY 212	SOC 210	
BIO 270	MAT 210	PSY 214	SOC 220	
CHE 120	POS 130	PSY 216	SOC 230	

SOCIOLOGY/ANTHROPOLOGY TRANSFER PROGRAM

Associate in Arts Degree
This program is designed to prepare the student to enter a baccalaureate program in Sociology/Anthropology/Social Sciences, with a concentration in Sociology or Anthropology, on the junior level.

See General Education Requirements
Courses selected as electives will depend upon the institution to which you will transfer. It is essential that students consult with a Faculty Advisor for assistance in selecting elective courses. However, it is the responsibility of students to meet with an admissions representative from the four-year institution to determine its transfer policies.

Sociology Concentration

Upon successful completion of this program, the student should be able to:
• Explain basic theory, methodology, and knowledge from the field of sociology.
• Illustrate key concepts in sociology including norm, social control, socialization, and deviance.
• Analyze social change processes utilizing various societies at various times as examples.
• Analyze cultural and social variations of family structure and the impact of the family on the individual.
• Identify current social issues and the role of social policy making in addressing social problems.
• Evaluate social problems, their causes, controls, and effects upon society
• Utilize resources for keeping current with issues and trends in sociology.
• Apply ethical choices related to sociological research.
• Transfer to an accredited college or university.

Major Requirements

SOC	130	Sociology	3
SOC	210	Social Problems	3
SOC	220	The Family	3
ANT	140	Cultural Anthropology	3
PSY	120	Interpersonal Relations & Communications	3
			15

ECO	250	SOC	291	ANT	245	GEO	101
SOC	125	SOC	299	ANT	250	SST	110
SOC	230	PSY	235	ANT	255	PSY	130
SOC	290	ANT	200	ANT	290	HUM	280

Anthropology Concentration

Upon successful completion of this program, the student should be able to:
- Describe the interrelated biological and sociocultural factors that have been proposed to explain the evolution of the human species.
- Analyze the wide range of adaptive responses by societies to differing environmental and societal pressures both past and present.
- Identify and explain how inequalities in wealth, status, and power are maintained in human societies.
- Discuss cross-cultural universals and differences in sexual and marriage practices and ideas about beauty.
- Explain the determinates of cross-cultural variation in expected (ideal) and observed (real) behavior.
- Discuss the various formal and informal methods of social control that exist in preindustrial, industrial, and postindustrial societies.
- Explain the importance of and differences that exist in both verbal and nonverbal communication in human societies.
- Compare, contrast, and evaluate supernatural and scientific explanations for the origin, function, and persistence of religious belief and practice in human societies.
- Identify, discuss, and contrast the major agents of socialization operating on individuals in non-Western and Western societies.
- Discuss the problems faced by native peoples as they attempt to cope with various aspects of the impact of modern western culture upon their traditional societies.
- Transfer to an accredited college or university.

Major Requirements
ANT	135	Human Evolution: Physical Anthropology & Archaeology	3
ANT	140	Cultural Anthropology	3
ANT	210	Native Peoples of North America	3
ANT	245	Magic, Ritual & Myth: The Anthropology of Religion	3
		or	
ANT	250	Magic, Ritual & Myth: The Anthropology of Religion (Honors)	3
SOC	130	Sociology	3
			15

Suggested Electives
ANT	200	ECO	250	SST	110
ANT	255	SOC	210	PSY	130
ANT	285	HIS	110	HUM	280
ANT	290	HIS	115		
ANT	291	GEO	101		

Minimum Credit Hours Required for the Program   60

SPECIAL EDUCATION PARAEDUCATOR
Associate in Applied Science Degree

The Applied Science in Special Education degree will prepare students for employment as paraeducators (assistant) in classrooms serving special needs children ages 3 to 11. As paraeducators, graduates will be called upon to provide instructional support to teachers in a variety of ways including: instruction to individual or small groups of students, assisting students in working with computers, administering tests, and tutoring students. Graduates can seek employment in public school districts, Intermediate Units, and Private schools and agencies.

Upon successful completion of this program, the student should be able to:

- Differentiate the distinctions among the roles and responsibilities of professional and paraprofessional personnel.
- Communicate with colleagues, follow instructions and use problem-solving skills that will enable them to work as effective members of the instructional team.
- Summarize the law, both federal and state, and the importance of advocating for children with disabilities and their families.
- Utilize child guidance and group management methods that foster the development of self-control and self-discipline in children.
- Analyze the impact of heritages, life-styles, and value systems among the children and their families on learning and behavior.
- Identify risk factors that may prohibit or impede typical development.
- Analyze the value of serving children with disabilities in inclusive settings.
- Instruct students in academic subjects using lesson plans and instructional strategies developed by teachers or other professional support staff.
- Implement developmental and age appropriate instructional procedures and reinforcement techniques.
- Operate computers and use assistive technology and adaptive equipment that will enable students with special needs to participate more fully in general education.
- Evaluate the impact of socioeconomic issues, attachment, family structures, cultural factors, and biological influences.

Required Program of Study
First Term
PSY	130	General Psychology	3
SOC	125	Individual and Society	3
COM	121	English Composition	3
ORI	100	College Success Strategies	1
			10

Second Term
ECE	125	Introduction to Early Childhood Education	3
		or	
EDU	130	Foundations of Education	
COM	141	Technical Writing	3
		or	
COM	131	Composition and Literature	
PSY	216	Psychology of the Exceptional Child	3
SST	110	Informative Technology for the Social Sciences	3
			12

Third Term
| PSY | 210 | Child Psychology | 3 |

ECE	120	Observation & Interpretation of Child Behavior	3
ENV	130	The Environment	3
SPE	100	Introduction to Special Education	3
			12

Fourth Term

SPE	205	Accommodating Children with Exceptionalities in the Classroom	3
MAT	150	Foundations of Math	3
HUM	--	Humanities Elective	3
SPE	215	Assistive Technology for Children with Exceptionalities	3
			12

Fifth Term

SPE	210	The Paraeducator Professional	3
SOC	220	The Family	3
PSY	120	Interpersonal Relations	3
SPE	220	Instructional Strategies for Children with Exceptionalities	3
			12

Sixth Term

SPA	101	Spanish I	3
SPE	250	Practicum in Special Education	6
			9

Total Credit Hours Required for the Program   67

WORD PROCESSING SPECIALIST

Associate in Applied Science Degree

The Word Processing Specialist program is designed to provide students with the terminology, concepts, skills, and procedures necessary for employment in a word processing center or a business or professional organization using word processing technology and equipment. Career possibilities include positions such as Word Processing Specialists, Word Processing Secretary, Word Processing Operator, Transcription Specialists, Text Editor, Correspondence Specialist, or Word Processing Coordinator or Supervisor. **College credit may be granted through Tech Prep articulation agreements between RACC and approved secondary schools.**

Upon successful completion of this program, the students should be able to:
- Demonstrate effective communication skills in writing and speaking in a business environment.
- Apply math operations to solve fundamental business problems.
- Utilize business and management terminology and principles to analyze problems and make decisions
- Demonstrate proficiency in keyboarding of business letters, memos, reports, and tables at a high level of speed and accuracy.
- Demonstrate a high degree of accuracy in applying correct grammar, usage, and style when transcribing documents from dictated audio tapes.
- Apply basic language skills associated with the parts of speech, sentence formations, numerical expression, capitalization, punctuation, and word division rules to business correspondence.
- Transcribe from various kinds of original communication, such as handwritten copy, printed copy, and voice-recorded dictation.
- Proofread and edit typed/keyed copy, including transcription of machine dictation, with a high degree of accuracy and correctness.

- Apply principles of supervision and management in order to obtain maximum productivity from computerized systems in both traditional and automated offices, with appropriate emphasis on people, procedures, and equipment.
- Work independently, with others, or in self-directed work teams to demonstrate effective interpersonal and problem-solving skills, attitudes, and work habits that contribute to organizational goals.
- Use appropriate office procedures in the areas of records information management, calculator, telephone communications, incoming and outgoing mail, meetings and conferences, travel arrangements, and simulated projects.
- Demonstrate speedwriting skills to take notes from oral dictation and produce mailable copy.
- Recognize the changing nature of technology and adapt to new equipment and procedures while retaining the most appropriate traditional office practices.
- Use word processing, spreadsheet, database, presentation, and Internet skills to complete office tasks.

Required Program of Study

First Term

BUS	100	Introduction to Business	3
BUS	105	Business English	3
OFT	110	Keyboarding I	3
ORI	100	College Success Strategies	1
			10

Second Term

BUS	110	Business Mathematics	3
MGT	140	Administrative Office Management	3
COM	121	English Composition	3
OFT	111	Keyboarding II	3
			12

Third Term

BUS	106	Business Communications	3
OFT	112	Keyboarding III	3
OFT	120	Machine Dictation and Transcription	3
			9

Fourth Term

ENV	130	The Environment	3
HUM	--	Humanities Elective	3
OFT	212	Office Procedures	3
OFT	213	Word Processing I	3
			12

Fifth Term

OFT	210	Speedwriting I	3
OFT	214	Word Processing II	3
OFT	250	Word Processing Transcription	3
SOC	125	The Individual and Society	3
			12

Sixth Term

CAR	105	Professionalism on the Job	1
--	--	Business Elective (see list below)	3
OFT	251	Word Processing Procedures	3
OFT	290	Business Cooperative Education I	3
			10

Total Credit Hours Required for the Program   65

The following courses qualify as a Business Elective: ACC 105, ACC 110, BUS 100, BUS 220, BUS 230, OFT 210, OFT 211.

2006-2007 Course Descriptions

ACCOUNTING
Credit Hours

ACC 100   Personal Finance   3
This course is an introduction to the basics of personal financial planning including budgeting, consumer awareness, home buying and selling, insurance, lending and borrowing, various types of investments, estate planning, and income tax strategies. This course is designed to help students make better use of the financial resources they have as well as to plan for a more successful future. Prerequisite: COM 061.   (Winter)

ACC 105   Financial Accounting   3
This course is designed to provide a conceptual introduction to financial accounting topics for business and accounting majors. Emphasis in the course is placed on using financial accounting information for decision making. Accounting theory of all commonly used accounts such as cash, investments, receivables, inventory, fixed assets, payables, bonds, and stocks are studied, as are accounting systems and controls, financial statement preparation, and analysis. Students will be introduced to the accounting cycle through computerized software. Prerequisite: IFT 110 (or concurrently), COM 051. Strongly recommended: BUS 110.   (Fall/Winter/Summer)

ACC 110   Managerial Accounting   3
Accounting techniques for managerial planning and control for all types of organizations, including non-profit, retail, wholesale, selling, and administrative situations in large and small businesses are included in this course. Product costing for manufacturing companies is also covered; however, emphasis is placed on the implications of the methods used for decision making. Topics covered include cost-volume-profit analysis, types of costs and cost behavior patterns, relevant costs for various types of decisions, budgeting, standard cost variances, responsibility accounting, capital project evaluation techniques, job order cost systems, and process cost systems. Students will solve various problems using microcomputers and spreadsheet software. Prerequisite: ACC 105, MAT 030.   (Winter/Spring)

ACC 120   Payroll Accounting   1
This course provides up-to-date instructions in the preparation of payroll records and tax returns. Students will be responsible for a practice set which includes all payroll activities for a small business including weekly payroll, computation and entries, and quarterly and annual tax returns using actual federal and state forms. Prerequisite: COM 061.   (Spring)

ACC 125   Accounting Principles I   3
This course focuses on providing beginning accounting students with the necessary technical background to prepare them for advanced study. Emphasis is placed on analyzing accounting transactions and preparing financial accounting information for the user. Topics include the study of cash, investments, receivables, inventory, fixed and intangible assets, payables, bonds, and stocks. Students will complete several practice sets. Prerequisite: ACC 105.   (Spring)

ACC 205   Intermediate Accounting I   3
This course provides an in-depth study of financial accounting topics including the conceptual framework for financial reporting and accounting principles, financial statement preparations and analysis, compound interest, annuities and present value, cash, receivables, and inventory valuations, property, plant and equipment, depreciation, and amortization of intangible assets. Prerequisite: ACC 110, ACC 125, COM 121 or permission of the instructor.   (Fall)

ACC 206   Intermediate Accounting II   3
This course is a continuation of Intermediate Accounting I. It is a study of current and contingent liabilities, long-term liabilities, capital stock, additional paid-in capital, retained earnings, earnings per share calculations, investments, pensions, leases, alternative means of income recognition, accounting for income taxes, and statement of cash flows. Prerequisite: ACC 205.   (Winter)

ACC 210   Financial Management   3
Basic terminology and evaluation techniques for the financial decisions required of all managers are emphasized in this course. Investment portfolios, risk, alternatives for both short- and long-term business financing, stock and bond markets, interest rates, dividend policies, forecasting, and project evaluation are all covered with the intent of exposing students to the required techniques for making the best decisions for a business's continued success. Prerequisite: ACC 105 (or permission of the Instructor).   (Spring)

ACC 220   Accounting Information Systems   3
The primary purpose of this course is to provide an overview of automated accounting systems. Financial accounting systems are analyzed for file requirements, output, internal controls, and interaction with other systems. Internal controls over computer systems are also studied. Students will gain a hands-on computer experience using several integrated accounting packages. Prerequisite: ACC 105.   (Spring)

ACC 230   Federal Taxes   3
This course is the study of the federal tax system, withholding taxes, payroll taxes, self-employment taxes, and individual income taxes. Emphasis is given to the Internal Revenue Code for tax accounting for individuals and businesses. Also covered are special tax computations, tax credits, gains and losses, inventories and depreciation, as well as tax problem researching sources and preparation of returns. Prerequisite: ACC 105.   (Winter)

All = Fall, Winter, Spring

ACC 235   Auditing   3
Generally Accepted Auditing Standards are studied in this course in relation to the examination of financial statements by an independent auditor. The moral and ethical problems of the auditor are also covered in addition to the planning and implementation of an audit case using computerized spreadsheet software. Prerequisite: ACC 205.   (Spring)

ACC 240   Advanced Accounting   3
This course covers advanced level theory and application of accounting principles, including business combinations, consolidated financial statements, international operations, partnership accounting, estates and trust fund accounting, government regulations, and special industrial practices. Prerequisite: ACC 206.   (Spring)

ACC 290   Cooperative Education I   (All)   Varies

ACC 291   Cooperative Education II   (All)   Varies

ACC 299   Seminar   (T.B.A)   Varies

ANTHROPOLOGY   Credit Hours

ANT 135   Human Evolution: Physical Anthropology & Archaeology   3
This is an introductory course to familiarize students with the methods and findings of Physical/Biological Anthropology and Archaeology. Interrelated biological and sociocultural factors that have been proposed to explain the evolution of the human species will be examined as well as the wide range of adaptive responses to differing environmental and societal pressures encountered by humans as they left their original homeland. Prerequisites: COM 051; COM 061.   (Winter)

ANT 140   Cultural Anthropology   3
This introductory course familiarizes students with the concepts, methods, and findings of Cultural and Linguistic Anthropology. Cross-cultural study of adaptations to the environment, social institutions, and cultural practices is combined with a holistic examination of particular societies around the world. Prerequisites: COM 051; COM 061.   (All)

ANT 200   Intercultural Communication (Honors)   3
Honors courses involve more in-depth study than non-honors courses and often involve exploratory learning, essay writing, collaborative activities and individualized research. This course examines how human beings communicate, and often mis-communicate, interculturally. It considers the ways such communication occurs not only through speech but also through gestures, posture, dress, facial expressions, distancing, use of time, and spatial organization. It further concerns the nature of ethnography and the relationship between language and culture. Prerequisites: COM 121; eligibility for the Honors Program.   (TBA)

ANT 210   Native Peoples of North America   3
This course will examine theories regarding the origin of the native peoples of the United States, Canada, and Mexico (commonly called "Indians") and compare and contrast the various cultural adaptations these populations have made to their changing social and physical environments from prehistoric times to the present. A final emphasis will focus on contemporary problems facing them and possible solutions to these problems. Prerequisite: COM 121.   (Spring)

ANT 245   Magic, Ritual and Myth: The Anthropology of Religion   3
This course examines theories proposed to explain the origin, function and persistence of supernaturalistic ideology, symbolism and ritual in both non-Western and Western societies as well as the social, cultural and political consequences of religious beliefs and differences. Prerequisite: COM 121.   (Spring)

ANT 250   Magic, Ritual, & Myth: The Anthropology of Religion (Honors)   3
Honors courses involve more in-depth study than non-honors courses and often involve exploratory learning, essay writing, collaborative activities and individualized research. This course examines theories proposed to explain the origin, function, and persistence of supernaturalistic ideology, symbolism, and ritual in both non-Western and Western societies as well as the social, cultural, and political consequences of religious beliefs and differences. Prerequisite: COM 121; eligibility for the Honors Program.   (TBA)

ANT 255   Interpreting Lives: Rites of Passage, Personal History, and the Life Cycle (Honors)   3
Same as HIS 255 & PSY 255. Honors courses involve more in-depth study than non-honors courses and often involve exploratory learning, essay writing, collaborative activities and individualized research. This interdisciplinary course considers the stages of life and their cross-cultural variation, including the rites of passage that mark transitions throughout the human life cycle. Further, the course examines how people construct and reaffirm their lives through the process of personal narrative. Students will be taught life history interview methods and guided to do independent research with an individual "tradition bearer". Such life history research facilitates the coming to voice of women and minority people who are often ignored in standard historical writing. Prerequisite: eligibility for the Honors Program and COM 121.   (TBA)

ANT 285   Ethnographic Research (Honors)   3
Honors courses involve more in-depth study than non-honors courses and often involve exploratory learning, essay writing, collaborative activities and individualized research. The courses focuses on supervised qualitative field research in particular social situations. Students will learn the steps to accomplishing an ethnographic research project, including ways to do various kinds of observations, fieldnotes, interviews, and analysis and interpretation of field data. Prerequisite: COM 121; eligibility for the Honors Program.   (TBA)

ANT 290   Cooperative Education I   Varies
Prerequisite: 27 credits earned in student's curriculum with a 2.0 QPA.   (All)

ANT 291   Cooperative Education II   Varies
Prerequisite: 27 credits earned in student's curriculum with a 2.0 QPA.   (All)

ANT 299   Seminar   (TBA)   Varies

AMERICAN SIGN LANGUAGE   Credit Hours

ASL 100   American Sign Language I   3
This course will focus on the development of communication skills and cultural sensitivity necessary to communicate successfully with members of the deaf community. Students will be introduced to the study of American Sign Language. Students will begin to develop receptive and expressive skills in ASL and learn basic vocabulary and grammatical structure. Prerequisites: COM 021; COM 051.   (TBA)

All = Fall, Winter, Spring

ASL 105 American Sign Language II 3
This course will focus on building and expanding the communication skills developed in the American Sign Language I course. Students will continue to develop their receptive and expressive skills in ASL, expand their vocabulary base, and learn more complicated sentence structures. Prerequisite: ASL 100.
(TBA)

ASL 110 American Sign Language III 3
This course will focus on building and expanding the communication skills developed in the American Sign Language II course. Students will continue to develop their receptive and expressive skills in ASL, expand their vocabulary base and learn more complicated sentence structures. They will also learn how to talk about people in a more abstract way, how to talk about the environment outidet of the classroom and how to discuss past events as posed to telling what is happening currently. Prerequisite: ASL 105.
(TBA)

ASL 115 American Sign Language IV 3
This course will focus on building and expanding the communication skills developed in the American Sign Language III course. Students will continue to develop their receptive and expressive skills in ASL, expand their vocabulary base and learn more complicated sentence structures. They will also learn appropriate cultural behaviors for directing and maintaining attention. Students will also learn strategies such as controlling the pace of a conversation and resuming conversations after an interruption. Prerequisite: ASL 110
(TBA)

AVIATION   Credit Hours

AVI 100 Flight Theory I 3
This course is designed to provide the appropriate knowledge and skills in compliance with and based on current requirements of the Federal Aviation Administration Private Pilot Certificate. Principles of flight basics, air traffic control, weather, navigational procedures, and airplane operations as are pertinent for the Private Pilot are studied. Upon successful completion of this course, the student will possess sufficient knowledge to pass the Federal Aviation Administration written exam for the Private Pilot Certificate. Prerequisite: COM 061.
(Fall)

AVI 105 Flight Practical I 2
This course is designed to provide the actual flight training to develop aviation skills at a college recognized FAA Part 141 flight school. A current Class II Federal Aviation Administration medical certificate is required; however, a Class I is recommended. Corequisite: AVI 100.
(Varies)

AVI 110 Flight Theory II 3
This is an advanced theory course involving the pertinent principles of instrument flight in preparation for the Federal Aviation Administration written examination for the Instrument Rating. Prerequisite: AVI 100 or Private Pilot Certificate.
(Winter)

AVI 115 Flight Practical II 2
This course is a continuation of the student's practical flight training. Subject material is from the course content areas listed as appropriate to the student's progress within the college recognized FAA approved flight school syllabus. Students enrolled in this course will develop Private Pilot skills to an advanced level including an introduction to Instrument Flight. The student will receive a minimum of 40 hours in the airplane plus class lecture hours. Prerequisite: AVI 105 or Private Pilot Certificate; Corequisite: AVI 110.
(Varies)

All = Fall, Winter, Spring

AVI 120 Meteorology for Pilots 3
As a foundation, the course provides insight into meteorology and its effect on all phases of aviation. Course materials will cover proper resources/contacts for weather data, how to use weather data, and how to use weather conditions in preparing flight plans. Prerequisite: COM 061.
(Winter)

AVI 123 Aviation Safety 3
This course is a detailed study of aviation safety and cockpit crew resource management concepts (CRM). Preprequisite: COM 061 or appropriate score on placement tests.
(Varies)

AVI 125 Airframes and Engines 3
This course provides a foundation for both pilots and mechanics in the elements of aircraft engines, engine theory, construction, systems, operating procedures, performance diagnosis, and aircraft structures. Prerequisite: COM 061.
(Spring)

AVI 130 Aircraft Systems 3
This course is a detailed study of aircraft systems, their various sources of basic power, and the functional application of mechanisms operated by these systems. Prerequisite: COM 061.
(Spring)

AVI 200 Flight Theory III 3
This is an advanced theory course aimed at understanding the principles of commercial aviation necessary to sit for the Federal Aviation Administration written examination for the Commercial Pilot Certificate. Prerequisite: AVI 110 or Private Pilot Certificate with Instrument Rating
(Fall)

AVI 205 Flight Practical III 2
This course is a continuation of the student's practical flight training. Subject material is from the course content areas listed as appropriate to the student's progress within the college recognized FAA approved flight school syllabus. Students enrolled in this course will develop their Instrument flying skills and receive an introduction to Commercial Pilot operations and flight maneuvers. Students will receive a minimum of 40 hours in the airplane plus class lecture hours. Prerequisite: AVI 115 or Private Pilot Certificate with Instrument Rating.
(Varies)

AVI 210 Aerodynamics 3
This course will introduce the student to the dynamics of flight through investigation of airfoils and shapes as they relate to aircraft structures and their interaction with the atmosphere during flight. It also includes an analysis of the physics of flight and the application of basic aerodynamics to both airframe and power plant. Prerequisites: MAT 110; PHY 150.
(Fall)

AVI 215 Aviation Laws & Regulations 3
This course is designed to provide insight pertinent to federal governing bodies. Current local, federal, and international laws which form the present structure of aviation law are also studied. Classroom instruction consists of the study of the Federal Aviation Act of 1958 and its revisions as they relate to the regulation of aeronautical and space activities by the Civil Aeronautics Board, the Federal Aviation Agency, and the National Aeronautics and Space Administration as well as the Department of Defense in the areas of air carrier liability and international aviation. Lecture and training aids will provide the student with the knowledge of integrating the principles of aviation laws and regulations into the field of aviation management. Prerequisite: COM 061.
(Winter)

AVI 220 Aviation Physiology/Psychology 3
This course is a study of the physical and psychological factors of significance to pilots. This includes the causes, symptoms and emergency treatment of ailments common to the flight environment through a basic understanding of the human being's normal body functions. Hypoxia, circulation, spatial

disorientation, vision and hearing are examined. Prerequisite: Private Pilot Certificate. Prerequisite: AVI 105 or Private Pilot Certificate. (Spring)

AVI 225   Flight Theory IV   3
This course is designed to provide the appropriate knowledge and skills in compliance and based on current requirements of Federal Aviation Administration Flight Instructor Certificate. All topics pertinent to earning this certificate are studied. Upon successful completion of this course, the student will possess sufficient knowledge to pass the Federal Aviation Administration written and oral examination for the Flight Instructor Certificate. Prerequisites: AVI 200 or Commercial Pilot Certificate with Instrument Rating. (Winter)

AVI 230   Flight Practical IV   2
This course is a continuation of the student's practical flight training. Subject material is from the course content areas listed as appropriate to the student's progress within the college recognized FAA approved flight school syllabus. Students enrolled in this course will develop their commercial flying skills and receive an introduction to Certificated Flight Instructor operations and flight maneuvers. Student will receive a minimum of 40 hours in the airplane plus class lecture hours. Prerequisites: AVI 205 or Commercial Pilot Certificate with Instrument Rating; Corequisite: AVI 225. (Varies)

AVI 235   Multiengine Flight Theory/Practical   2
This course will provide basic ground and flight instruction for the single engine pilot to transition to a multiengine aircraft. The greatest emphasis will be placed on the most important factor of transition from single engine to twin engine, that of potential engine failure. This is an advanced theory course involving the pertinent principles of preparation for the multiengine rating and will apply the principles of multiengine theory to practical flight exercises in a twin engine aircraft. Pilot transitioning from single engine aircraft will be required to apply procedures necessary for safe continuation or termination of the flight when faced with an engine failure situation. Prerequisite: Commercial Pilot Certificate with Instrument Rating. (Spring)

BANKING   Credit Hours

BNK 100   Principles of Banking (1370)   3
This course touches on nearly every aspect of banking from the fundamentals of negotiable instruments to contemporary issues and development within the industry. After successful completion of this course, students will understand: full-service commercial banking as it affects the economy, community, business, and individuals; the three major functions of commercial banks and their interrelationship; the various products and services banks offer governments, businesses, individuals, and correspondents; demand and time deposits; types of bank loans and investments; liquidity, safety, and income; banking regulations and regulatory agencies. (Varies)

BNK 105   Economics For Bankers (2310)   3
This course introduces the student to the fundamental principles of economics. Special emphasis is placed on macroeconomics and topics of importance to you as a banker. The course covers the basics of economic theory and includes examples of the application of economics to banking. After successfully completing this course, you will be able to: interpret the economic indicators published in the media; relate basic principles of economic theory to the business cycle and business organization; describe the causes of inflation, its effects, and ways it is measured; compare and contrast economic systems; relate the fundamental concepts of the supply and demand theory and Keynesian economics. (Varies)

BNK 109   Business English (2602)   3
The Business English course covers all aspects of grammar usage, composition, spelling and vocabulary. The emphasis is strictly practical and business oriented. Proper communication is essential to succeeding in today's business world. Whether you are preparing a memo, a letter or an article for publication, the proper use of English is invaluable. (TBA)

BNK 115   Law & Banking: Applications (3670)   3
This course is an introduction to laws pertaining to secured transactions, letters of credit, and the bank collection process. After successful completion of this course, students will be able to: explain the concept of negotiability, analyze the concept of holder-in-due course status, describe the nature of primary and secondary contractual liability on an instrument, discuss the legal issues related to bank collections and check losses, define and explain the nature of a letter of credit and identify the issues related to secured transactions. (TBA)

BNK 120   Trust Business (8250)   3
This course provides students with an overview of the trust department, including how it fits into the bank's overall operations, the services it provides, and generally how those services are delivered. After successfully completing this course, students will be able to: explain the role of the trust department in a bank; describe the trust services that corporate and consumer customers receive; identify assets and ownership related to trust services. (TBA)

BNK 125   Trust Operations (8325)   3
In addition to providing the basic trust terminology, this course discusses the concepts and ideas that comprise the various trust functions and translates them into workable procedures. They include: the types of securities handled by a trust department, the kinds of investments typically made with trust account assets, why securities are owned, and how they are traded; the role and functions of the various participants in the securities industry; the responsibilities inherent in the fiduciary and agency relationships that a trust department has with its customers; the laws and regulations that define and circumscribe trust activities; the concepts of trust accounting and functions performed by a trust department; the internal controls, record keeping, and reporting requirements necessary in trust activities. (TBA)

BNK 139   Accounting Basics (1002)   3
Accounting Basics provides a complete foundation in general financial accounting through a hands-on, step-by-step, practical approach. After successful completion of this course, students will be able to: identify and explain business transactions and source documents, use a general journal and general ledger to record transactions, explain why and how accounts payable subsidiary ledgers are used, maintain employee earnings records and prepare and file the W-2 and W-3 forms. (TBA)

BNK 140   Accounting I (1000)   3
Accounting I emphasizes current practices of accounting procedures, and includes coverage of the latest principles established by the Financial Accounting Standards Board. After successful completion of this course, students will have a working knowledge of: the balance sheet and income statement; the accrual basis and the cash basis of accounting; all required journals, entries, and adjustments; internal control; the basic assumptions, principles, and modifying conventions of accounting; how inflation affects information in financial statements; characteristics of partnerships. (Varies)

BNK 150   Consumer Lending (7008)   3
This up-to-date, insider's view of consumer lending offers essential information about the maze of regulations governing credit practices and reviews loan processing, cross-selling and

All = Fall, Winter, Spring

collections. After successful completion of this course, students will be able to: identify components of the consumer installment credit market, describe various loan products, trace the lending process, apply credit math and loan pricing principles, recognize variables that affect loan structure and identify opportunities for cross-selling bank products. (Varies)

**BNK 153   Microcomputer Applications
                 in Banking (2090)   3**
This course is designed to extend the world of computers with hands-on introduction to the basic windows commands, peripherals, definitions, software, hardware, as well as hands-on exercises relating to MicroSoft Word 6.0, Excel 5.0, Access 2.0 and PowerPoint 4.0. After successful completion of this course, students will be able to: design, save, and modify data base structures, add, delete, edit, retrieve records in the data file, create reports, charts and presentations using Access and PowerPoint. (TBA)

BNK 155   Commercial Lending (6350)   3
This course will give you the knowledge and skills to be an effective commercial lender. Commercial Lending covers both the technical side of lending and the important human relations skills all successful lenders must have. After successful completion of this course, students will be able to: explain why good human relations skills are critically important to the successful lending officer in many stages of the commercial lending process, identify the functions of the loan interview and credit investigation, describe how the borrower's financing needs and business type can affect the structuring of a loan, list important elements of loan documents and describe their functions, name some warning signs of problem loans, and identify ways that you can prevent problem loans. (Varies)

BNK 185   Spanish for Bankers I (3130)   2
This course is designed to provide banking personnel with basic language skills in Spanish. After successful completion of this course, students will be able to: use common greetings and farewells, use basic words, expressions, vocabulary, phrases and sentences associated with banking. The student will also be able to understand and use numbers, monetary terminology, provide information to customers about opening an account and apply learned vocabulary associated with banking activities. (TBA)

BNK 210   Supervision (4310)   3
This course helps new or potential supervisors to become better managers by emphasizing broad perspectives and by combining fresh insights with the interpersonal relations required of today's successful managers. Issues covered in class include: characteristics of effective management; setting objectives, decision making, and time management; training and professional development; communication and interpersonal skills; organizational behavior with groups; interviews, selection of employees, and treatment of conflicts; appraisal and compensation; grievances and conduct disciplinary actions; employee safety and health. (TBA)

BNK 220   International Banking (7110)   3
International Banking covers the fundamental, mainstay topics of international banking such as foreign exchange, collections, letters of credit, international financing agencies, documents used in international financial markets, and the Eurodollar market. The course will: describe the basic dynamics and overall complexities of the international arena; identify the various international services banks provide; explain international lending concepts, credit principles, and risk factors; describe the various legal and regulatory constraints/requirements that dominate international finance; explain the history and basic concepts of the Eurodollar market; identify the various international lending agencies and their roles in international

finance; define basic international banking terms including Incoterms. (TBA)

BNK 222   Residential Mortgage Lending (7820)   3
This course provides a clear understanding of the fundamentals of mortgage lending. After successfully completing this course, the student will be able to: describe the mortgage lending industry, including the customer base, market, government regulations, and alternative mortgage instruments; process and underwrite a residential mortgage loan; identify the benefits, requirements, and classifications of mortgage insurance; market residential loans; describe the secondary mortgage market and how mortgage-backed securities have become important to mortgage lenders in the market; appraise, close and administer residential mortgage loans; identify the general principles of real estate law. (TBA)

BNK 226   Law & Banking: Principles (3660)   3
This course is a banker's guide to law and legal issues, with special emphasis on the Uniform Commercial Code. After successfully completing this course, the student will be able to: identify the sources and applications of banking law; distinguish between torts and crimes and how they relate to banking situations, explain contracts, including the need for legal capacity, legal objective, mutual assent, and consideration; describe real and personal properties and their application to banking; discuss how bankruptcy affects banks and differentiate between the liquidation and rehabilitation goals of the Bankruptcy Code; identify the legal implication of consumer lending. (Varies)

BNK 228   Marketing For Bankers (7740)   3
Marketing for Bankers looks at what motivates customers to purchase financial services and teaches bankers how to develop a successful marketing plan. Students will learn to: recognize consumer motivation and buying behavior; integrate public relations, advertising, sales, promotion, selling, and service distribution functions in the bank's overall marketing plan; conduct situation analysis and formulate a master marketing strategy; monitor and evaluate performance. (Varies)

BNK 230   Analyzing Financial Statements (6920)   3
This course provides the opportunity to further develop the skills necessary to conduct a comprehensive and effective financial analysis of a business borrower in order to assess repayment capacity. Topics include: how a company's type of business, legal structure, size, and management strategies affect the way a lender conducts financial analysis; analysis of income statements, balance sheets, and pro forma statements; financial ratios as a tool to compare a company's performance with that of its' industry; advanced analytical techniques: sensitivity analysis, sustainable growth, working investment analysis, break-even analysis, and operating leverage; funds flow statements; construction and interpretation of cash budgets. (Varies)

BNK 242   Money & Banking (1350)   3
This course presents a fundamental treatment of how money functions in the U.S. and world economies. Topics include the concept of money supply and the role the bank plays as a money creator and participant in the nation's payment mechanism. Money and Banking also explains how the various types of financial institutions operate, the working of monetary and fiscal policies, the functions and powers of the Federal Reserve, and more. Students will learn: how commercial banks "create" money; the tools of monetary and fiscal policy; to interpret major trend and issues in banking; bank operations relationship to U.S. payment mechanisms; to compare and contrast various types of financial institutions. (Varies)

All = Fall, Winter, Spring

BIOLOGICAL SCIENCES Credit Hours

BIO 120   Biological Concepts   4(Lab)
A one-semester introductory course concerned with the fundamental facts and principles of modern biology. The course is designed for the student who wishes to gain an understanding of current biological concepts and their relevance to problems of human society. Emphasis will be on principles including: cell structure and function, energy transfer, reproduction, heredity, and evolution. Topics of contemporary interest include cancer, AIDS, infertility, genetic technology, and others. Prerequisite: COM 061; MAT 020 or appropriate placement tests score.
(All/Summer)

BIO 150   Biology I   4(Lab)
This is a first year college course that emphasizes biological organization at the cellular level. Concepts of cell biology, genetics, and evolution are included. The laboratory complements the lecture. Prerequisite: COM 061; CHE 120 is highly recommended (or high school Chemistry within last 5 years); MAT 020 or appropriate placement tests score.
(All/Summer)

BIO 155   Biology II   4(Lab)
This course introduces the fundamental principles of botany and zoology as applied to the representative groups of plants and animals. Topics also include ecology and evolution. Prerequisite: BIO 150 with a "C" or better.   (Winter - even years)

BIO 210   Botany   4(Lab)
A survey of the plant kingdom with major emphasis on the anatomy and physiology of the seed plants. Prerequisite: BIO 150 (or permission of the Instructor) or BIO 120.
(Spring - odd year)

BIO 250   Anatomy & Physiology I   4(Lab)
A study of the fundamentals of anatomy and physiology, with emphasis placed on the organization of the body, cells and tissues, integumentary system, skeletal system, muscular system, nervous system, and special senses. Prerequisite: BIO 150 with a "C" or better (or high school Biology and high school Advanced Biology and high school Chemistry within the past 5 years); COM 121 may be taken concurrently.   (All/Summer)

BIO 255   Anatomy & Physiology II   4(Lab)
A study of the fundamentals of anatomy and physiology with emphasis placed on the organization of the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. Prerequisite: BIO 250 with a "C" or betterwithin the last 5 years.   (All/Summer)

BIO 280   Microbiology   4(Lab)
This course is a survey of the world of microorganisms. Topics include: microbial-morphology, metabolism, and genetics; culture characteristics and identification; basic immunologic concepts and applications; theory of disease process; and applied microbiology as to food and water. The laboratory component complements the lecture material. Prerequisites: BIO 150 with a "C" or better (or high school Biology, high school Chemistry and high school Advanced Biology within the past 5 years); COM 121 may be taken concurrently.   (All/Summer)

BIO 290   Cooperative Education I   (TBA)   **varies**

BIO 291   Cooperative Education II   (TBA)   **varies**

BIO 299   Seminar   (TBA)   **varies**

BUSINESS Credit Hours

BUS 100   Introduction to Business   3
This course is a survey of the structure of business - its principles, activities, and typical problems. It is designed to provide students with an overview of business careers and a working knowledge of business terminology. The course covers facets of business such as ownership, management, production, marketing, human resources, accounting, information systems, economics, legal issue, ethics, and social responsibility. Prerequisites: COM 051; COM 061.   (All)

BUS 105   Business English   3
This course is designed for students to review and strengthen technical English skills such as grammar, sentence structure, word usage, and punctuation. Prerequisite: COM 061.
(Fall/Winter)

BUS 106   Business Communications   3
This course is the communication process explored through the development of effective oral and written communications skills. Emphasis on business correspondence, report writing, application letter and resume, and oral presentation. Prerequisite: COM 121.   (All)

BUS 110   Business Mathematics   3
This course stresses the mastery of fundamental mathematical operations designed to prepare students in all pertinent areas of business including decimals, fractions, percentages, payroll, taxes, finance charges, insurance, stocks, bonds, compound interest, present value, annuities, and business statistics. Prerequisite: MAT 030.   (All)

BUS 115   Economics Survey   3
This course is an introduction to the basic concepts and principles of economics including the essential concepts, principles, and problems of both macroeconomics and microeconomics. Prerequisite: COM 061.   (TBA)

BUS 200   Macroeconomics   3
This course is an introduction to the basic principles of economics with emphasis upon macroeconomic theory. Among topics considered are the scope and nature of economics, national income and employment theory, business fluctuations, money and banking, fiscal and monetary policies, and economic growth. Prerequisite: COM 121 and MAT 020 or appropriate placement tests score.   (Fall)

BUS 201   Microeconomics   3
This course is the study of basic economic principles with particular emphasis upon microeconomic theory and problems. Among the topics considered are the economics of the firm, the price system and resources allocation, the distribution of income, and domestic economic problems. Prerequisite: COM 121 and MAT 020 or appropriate placement tests score.
(Winter)

BUS 210   Principles of Salesmanship   3
Instruction is provided in the fundamentals of good salesmanship. Classes consist of lectures, discussions, and student sales demonstrations. The personal and economic aspects of selling are reviewed. Prerequisite: COM 061.(Winter)

BUS 220   Principles of Marketing   3
This course is a study of the distributive phase of economics including the marketing concept, the marketing mix, marketing research, and consumer behavior. Prerequisites: BUS 100; COM 121.   (Spring)

All = Fall, Winter, Spring

BUS 230   Business Law   3
This course covers the significance of business procedures and methods to avoid lawsuits and major legal problems. The legal system, contract law, sales contracts, commercial paper, agency relationships, insurance, property, partnerships, and corporations are the areas of study. The course is designed to be taken near the end of business studies. Prerequisites: BUS 100 or OFT 230; COM 121.   (Spring)

BUS 290   Cooperative Education I   (TBA)   Varies

BUS 291   Cooperative Education II   (TBA)   Varies

BUS 299   Seminar   (TBA)   Varies

CAREER DEVELOPMENT   Credit Hours

CAR 103   Career Decision Making   1
This course is designed to aid students who are unsure of their career choice. Through various career inventories and classroom exercises students will develop a better understanding of themselves and their relationship with the world of work. Different careers will be explored and the decision-making process will be examined. Prerequisite: COM 021.   (All)

CAR 104   Resume Writing/Interview Skills   1
This course is designed to assist students who intend to enter the workforce, change occupations, or advance in their careers. Various job hunting strategies will be reviewed. Each student will complete a resume and cover letter and will also receive instruction and practice in interviewing skills. Prerequisite: COM 021.   (Spring)

CAR 105   Professionalism on the Job   1
Human relations skills are a critical factor in success on the job. This course is designed to help students plan and implement their own career strategies, placing particular emphasis on the importance of effective job attitudes and behaviors. The student will be guided in the development of those human relations skills necessary to keep, advance in, or change careers. Prerequisite: COM 021.   (Fall/Spring)

CAR 299   Seminar   (TBA)   Varies

CHEMISTRY   Credit Hours

CHE 110   Introduction to the Laboratory   1(Lab)
This course serves as an introduction to the clinical and industrial laboratory experience to follow. Laboratory organization and safety will be stressed. Basic laboratory techniques will be introduced. Lecture one hour per week, laboratory two hours per week. Prerequisites: COM 061 and MAT 020 or appropriate placement tests scores.   (Fall)

CHE 120   Principles of Chemistry   4(Lab)
This is a first-year college course which covers the concepts of chemistry. Among the topics include systems of measurement, matter and energy, atom theory, energy levels and atomic structure, the periodic table, ionic and covalent bonding, chemical equations, stoichiometry, acids and bases, states of matter, and solutions. Laboratory experiments are performed and complement theory. Prerequisite: COM 061; MAT 030 with a "C" or better.   (All/Summer)

CHE 150   Chemistry I   4(Lab)
The fundamental principles and theories of chemistry; the period classification; the nature of atoms; chemical bonding; chemical calculations; gas laws; solutions and their colligative properties. Prerequisite: CHE 120 with a "C" or better(or high school chemistry within the last 3 years); MAT 110 with a "C" or better   .   (Winter)

CHE 155   Chemistry II   4(Lab)
This course is the second half of a general chemistry course and includes as the major topics: thermochemistry, chemical kinetics, chemical equilibria, thermodynamics, precipitation reactions, electrochemistry, and nuclear chemistry. Laboratory experiments are designed to augment the theory. A major part of the laboratory includes qualitative and quantitative analyzes to strengthen the student in the field of analytical chemistry. Prerequisite: CHE 150; MAT 160 or MAT 180.   (Spring)

CHE 220   Introduction to Organic Chemistry   5(Lab)
This course provides instruction in the basic essentials of organic chemistry including the structure, nomenclature, properties, preparation, reactions, and reaction mechanisms of the major classes of organic compounds. Classes studied include saturated and unsaturated hydrocarbons, aromatic compounds, halides, alcohols, ethers, alderhydes, ketones, carboxyllic acids and their derivatives, and amines. Also included are more complex compounds such as carbohydrates, lypids, proteins, enzymes, and nucleic acids. The laboratory component of the course includes procedures and techniques dealing with non-aqueous systems, synthesis, and qualitative testing. Prerequisites: CHE 150 Chemistry I and BIO 150 Biology I (or advanced high school biology).   (Spring)

CHE 275   Instrumental Analysis   4(Lab)
This course is designed for those students pursuing a career in any chemistry laboratory. The application and theory of instrumentation to chemical analysis is stressed. Emphasis is placed on spectophotometry (infrared, visible, and ultraviolet), potentiometry, and chromatography. Statistical quality control of analytical procedures and issues related to the safe use of hazardous materials are also included. Prerequisites: CHE 150 Chemistry I and CHE 220 Introduction to Organic Chemistry.   (Fall)

CHE 290   Cooperative Education I   (All)   Varies

CHE 291   Cooperative Education II   (All)   Varies

CHE 299   Seminar   (TBA)   Varies

All = Fall, Winter, Spring

COMMUNICATIONS   Credit Hours

PLEASE NOTE: COM 040 and COM 041 are equivalent courses. COM 050 and COM 051 are equivalent courses.

COM 009   College Entrance Course Reading & Writing   0
This course is designed to assist students with developing vocabulary skills and recognizing the main idea and supporting details in a paragraph. Students will also learn beginning writing and study skills. Prerequisite: placement by assessment.   (All)

COM 021   Basics of College Reading   3
The course is designed to assist students in developing reading competencies necessary to function satisfactorily in college-level courses. Strategies and skills that promote comprehension, recall and retention of written text are emphasized. In addition, strategies to develop vocabulary are presented. Course materials are drawn from adapted college textbook materials, college-level texts, news articles, essay and magazine articles. Practical applications of reading and vocabulary strategies are emphasized to promote improved comprehension and expanded vocabulary. Prerequisite: Placement by appropriate score on placement test or completion of COM 009 College Entrance Course Reading and Writing.   (All)

COM 031   Basics of College Study Skills   3
The course is designed to assist the student to develop the study skills competencies necessary to function in other college courses. The student will acquire the study habits and techniques necessary to become an independent learner. Principles include time management, effective listening, locating information, note-taking, and systematic approaches to study. Prerequisite: COM 009.   (All)

COM 040   Basic Writing I with Workshop   4
This course will offer students guided practice in basic writing skills in a workshop setting which emphasizes conference time with the instructor and in small peer groups. The course focuses on constructing essays through careful paragraph building. Selection of topics and supporting details and the development and organization of ideas are emphasized. Students will learn to compose short essays based on personal experience and knowledge. Prerequisite: Placement by appropriate score on placement test or completion of COM 009 College Entrance Course Reading and Writing.   (All)

COM 041   Basic Writing I   3
This course will offer students guided practice in basic writing skills. It focuses on constructing essays through careful paragraph building. Selection of topics and supporting details and the development and organization of ideas are emphasized. Students will learn to compose short essays based on personal experience. Prerequisite: Placement by appropriate score on placement test or completion of COM 009 College Entrance Course Reading and Writing.   (All)

COM 050   Basic Writing II with Workshop   4
This course helps to develop basic writing skills with practice and reinforcement of those skills provided in weekly workshops. Students will begin to develop a sense of themselves as writers and a sense of the elements that constitute effective academic writing through regular writiing and ongoing feedback from the instructor in one-on-one and small group conferences. Students will compose short expository essays through guided practice in a variety of activities. Students will also be introduced to basic methods of library research. Prerequisite: COM 021 Basics of College Reading and COM 040 Basic Writing I with Workshop or COM 041 Basic Writing I with grades of "C" or better; or appropriate score on placement test.   (All)

COM 051   Basic Writing 2   3
This course helps develop basic writing skills. Students will develop a sense of themselves as writers and a sense of the elements that constitute effective academic writing. They will compose short expository essays through guided practice in a variety of activities. Students will also be introduced to basic methods of library research. Prerequisite: COM 021 Basics of College Reading and COM 040 Basic Writing I with Workshop or COM 041 Basic Writing I with grades of "C" or better; or appropriate score on placement test.   (All)

COM 061   Advanced Reading: Speed & Comprehension   3
Advanced reading skills as speed and comprehension, memory skills and improvement of concentration are taught. The reading selections are taken from current, relevant books; college textbooks; academic and scholarly journals and news articles. At all times, increased comprehension is stressed. The course will also enable the students to use technology and materials/equipment in the computerized Reading Lab component. Prerequisite: appropriate score on placement test or "C" or better in COM 021 Basics of College Reading. (All)

COM 121   English Composition   3
This course helps develop an understanding of the elements of exposition and formal argument and the processes and strategies involved in writing essays for various audiences. Students also learn to identify and locate credible sources, integrate researched information within essays, and use Modern Language Association (MLA) and American Psychological Association (APA) documentation. Prereq-uisites: Appropriate score on the placement test or COM 051 Basics of College Writing and COM 061 Advanced Reading: Speed and Comprehension with a grade of "C" or better.   (All)

COM 122   English Composition (Honors)   3
This course helps students develop an understanding of the elements of exposition and formal argument and the processes and strategies involved in writing essays for various audiences. Students also learn to identify and locate credible sources, integrate researched information within essays, and use Modern Language Association (MLA) and American Psychological Association (APA) documentation.

*This Honors section of English Composition assumes a strong foundation in writing skills, including developing and organizing a focused piece of writing, using current conventions of academic discourse. Therefore, the major emphasis will be an in-depth exploration of a socially relevant theme chosen by instructor and/or students using those skills and producing a collaborative, unified body of work rather than isolated individual essays. In a workshop format, the class will work as a community of writers to define and to solve a writing problem. Discussions, readings, interviews, primary research and extensive writing will result in a culminating final product and presentation that would incorporate the work of the entire term.

Prerequisites: COM 051 and COM 061 or appropriate score on placement test and eligibility for the Honors Program.   (All)

COM 131   Composition & Literature   3
An introduction to short story, drama and poetry, the course builds on and develops writing and research skills begun in COM 121. Students engage in class discussions as well as compose essays which respond to and analyze literary works. Prerequisite: COM 121 or COM 122 with a "C" or better.   (All)

**COM 132   Composition & Literature:
          Texts and Contexts (Honors)   3**
Composition and Literature: Texts and Contexts (Honors) involves students in a guided exploration of literature through

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the understanding and application of various critical theories. Invited to read, discuss, analyze, interpret, research, and write about fiction, poetry, and drama from the perspectives of a number of theoretical approaches, students will develop the ability to recognize assumptions underlying certain literary theories, understand their aims and implications, and apply their methods of analysis to literature. Students will also practice a variety of researching and writing strategies that evolve from the various theoretical perspectives. Prerequisites: COM 121 or COM 122 with a "C" or better; eligibility for the Honors Program. (Winter)

COM 141   Technical Writing   3
Students learn research techniques in their specialized fields and standard formats used in business and industry, such as technical correspondence, formal reports, and oral presentations. Emphasis is on accommodating the needs of technical audiences, from lay to expert, specifically through document design, logical presentation, and concise, readable prose. Prerequisite: COM 121 or COM 122 with a "C" or better.
(All/Summer)

COM 151   Fundamentals of Speech   3
The course emphasizes the strategies necessary for planning, developing and delivering oral presentations, which range from individual informative and persuasive speeches to group panels and workshops. Class discussions focus on adapting information, organization and delivery styles to meet the needs of listeners. Classroom activity is performance-based, with students delivering speeches, responding to classmates and leading class discussions. Videotapes made of student performances provide opportunities for self-evaluation. Prerequisites: COM 051; COM 061. (All)

COM 152   Fundamentals of Speech (Honors)   3
The Honors section of Fundamentals of Speech moves beyond emphasizing strategies for and practice in delivering basic informative and persuasive speeches of the non-Honors section. In this course students also examine styles of oral argumentation and gain experience in supporting an issue through research and logic as well as in answering and counter arguing opposing evidence to a position. Students practice their skills in individual speeches as well as in team presentations. Moreover, students lead class discussions as well as give feedback to classmates. Videotapes of students' performances provide opportunities for self-evaluation. Prerequisites: COM 051; COM 061; eligibility for the Honors Program. (TBA)

COM 161   Mass Media   3
This course surveys the major forms of the mass media-newspapers, radio, magazines, television and electronic media - and their impact politically, socially and economically. The student will explore the origins, development, and potentiality of print, broadcast and electronic media as well as analyze the evolution of standards, policies, methods and controls. The course is designed to be equally useful for students planning to enter a communications field or other professions and businesses. As consumers, we all must use the media, either to inform ourselves or to help inform and persuade others. Prerequisite: COM 121 or COM 122. (Winter)

COM 163   Writing for the Media   3
This course will introduce students to the wide variety of writing and publishing opportunities in the media. Students will learn to identify and practice writing for traditional media such as newspapers as well as engage in the study of and writing for other kinds of publishing genres such as magazines, public relations material and on-line communication. Students will develop skills in writing copy for a variety of purposes including news reporting, feature writing and creating press releases. Additionally, students will be introduced to the roles of the editor including writing editorials, editing copy and writing headlines. In short, this course will help students to understand the qualifications needed to write for the media. Prerequisite: COM 121 or COM 122. (Spring)

COM 201   Introduction to Editing   3
This course, designed for native writers of English, helps students develop editing strategies for making prose writing more effective. Using personal, peer and professional texts, students will focus on issues of correctness and style. Specifically, they will learn to create prose that is correct in syntax, usage and punctuation and to adapt prose style to fit a variety of audiences and situations. Editing will be viewed within the context of the composing process as a whole and concepts will be examined within a social, historical, and political perspective. Prerequisite: COM 121 English Composition or COM 122 English Composition (Honors) with a grade of "C" or better. (Fall)

COM 205   Writing for On-line Environments   3
The course challenges students to read, write, and think differently about new forms of media and communication. Chief among these new forms is the Internet. Students will investigate the rhetorical and visual structure of computer-mediated, on-line texts such as e-mail, web pages, and interactive communication tools. Also, students will consider the sociological significance of the changing space of writing and publishing leading up to postmodern theories of writing and culture. Students will write in a variety of media in order to improve their writing as they improve their understanding of the rhetoric of on-line environments. Prerequisite: COM 121 & IFT 110. (Spring)

COM 211   Poetry Writing   3
In this course students will study the elements and craft of writing poetry. Within a workshop setting, students will practice stanza, lineation, rhyme, word placement, and other elements of traditional verse as well as explore imagery, tone, style and composition of both traditional and free verse. As students read and respond to the poems of professionals and peers, they will explore strategies for revising their own poems as well as reflect on their personal writing processes. Students will also investigate markets for publishing their poetry. Prerequisite: COM 121 or COM 122. (TBA)

COM 299   Seminar   (TBA)   varies

CULINARY ARTS   Credit Hours

CUL 101   Basic Food Preparation and Safety   4
This course is designed for beginning students. The student will receive lecture and hands-on training in weight and measures, job safety, basic sanitation, inventory, receiving goods and equipment usage in the food service industry. Prerequisite: COM 021 and MAT 020. (Fall)

CUL 111   Introduction to Food Production   4
Students enrolled in this course will get an overview and understanding of the theory behind breakfast production, soups, stocks, sauces, salads, dressings, hot and cold sandwiches and fruit and vegetable preparation. Students will be introduced to basic techniques in the industry and gain skills in those areas. Students will note a direct correlation between classroom work and real life experiences by successfully completing assigned "work" hours at one of the four practical kitchens. Prerequisite: CUL 101. (Winter)

CUL 125   Food Preparation Theory   4
Instruction on the theory behind food preparation is stressed in this course. The how and why of preparation is addressed.

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Students enrolled in this course will receive the instruction necessary to prepare foods in a food service setting. Prerequisite: CUL 111 (Spring)

CUL 201   Food Preparation Practicum   3
Students will be introduced to preparation of basic foods. They will learn skills in vegetable production as well as preparation of fruits for service. This course relies on competency based evaluation. Prerequisite: CUL 111. (Fall)

CUL 215   Breakfast Cookery   3
This course includes training in preparation and presentation of items for use in breakfast and brunch. Emphasis is placed on egg production, breakfast quick breads and meats, which are applicable to high profit breakfast operations. Prerequisite: CUL 111. (Summer)

CUL 220   Food Service Sanitation   2
Food Sanitation and Safety is an industry-driven course. Students will learn about sanitation and HACCP (hazardous analysis critical control point), as well as safety in the workplace. This course will prepare the student for the sanitation certification which will be administered at the end of the course. Prerequisite: COM 021. (Spring)

CUL 235   Professional Baking   3
Students will learn, using a hands-on approach, the fundamental principles and procedures for preparing baked goods, pastries, and desserts. A study of ingredients and mixing methods for various baked goods. Prerequisite: CUL 111. (Summer)

CUL 240   Gardé Manger   3
Perfection of techniques in the production of cold food presentations. Preparation of aspics, forcemeats, pates, mousse, marinades, gelatines. Platter and mirror designs to highlight buffet work. Prerequisite: CUL 210. (Winter)

CUL 255   Advanced Food Preparation Practicum   3
This course is a hands-on preparation course. Students will work in a food-service setting preparing foods under a chef's direction. Prerequisite: CUL 240 (Spring)

EARLY CHILDHOOD EDUCATION
Credit Hours

ECE 106   The Early Childhood Professional   3
This course explores the role of the early childhood professional. Emphasis will be placed on the development of a professional plan. In developing the professional plan students will have the opportunity to evaluate their goals and commitment to professional development and higher education. Skills and techniques to develop the student's academic and professional development in the college environment will be highlighted. Students are required to participate four hours per week in an approved early care and education setting. Prerequisite: COM 061 (TBA)

ECE 115   Creative Art for the Developing Child   3
This course focuses on the process of development in young children and its relationship to art instruction. Emphasis will be placed on basic 2-dimensional medial art techniques which can be mastered by children from infancy through grade six. Students will actively engage in creative activities and present art experiences to children in the RACC Early Learning Center. Participation both in class and one hour per week in the college's Education Laboratory Center is required. Prerequisite: COM 021. (All)

ECE 120   Observation & Interpretation of Child Behavior   3
The basic principles and techniques of observing and interpreting child behavior will be discussed, evaluated and practiced. The student will spend a total of forty hours in a day care center, private nursery school, Montessori or Public School setting under the supervision of a certified teacher. Students will be required to write weekly observation papers on children in group situations. The four hours of field experience is supplemented by two class sessions per week. Prerequisite: COM 051; COM 061. (Spring)

ECE 125   Introduction to Early Childhood Education   3
The course explores the history and rationale for preschool and child care services, analyzes on-going community programs and considers the projected future for state and federally funded programs for children. One hour participation weekly is required in the college's Education Laboratory Center. Prerequisite: COM 051; COM 061. (Fall/Winter)

ECE 140   Health, Safety & Nutrition in Early Childhood Education   3
This course focuses upon health, safety, and nutrition issues of young children. Emphasis will be placed on the health and safety needs of the physical environment. Students will have the opportunity to analyze and interpret the Department of Welfare regulations. One hour participation weekly is required in the college's Education Laboratory Center. Prerequisites: COM 051; COM 061. (Fall)

ECE 145   In-Home Child Care Specialist, Professional Nanny   3
This course is designed to provide the student with the knowledge and skills necessary to perform as a professional in the home child care field. It is particularly directed to family or group child care settings. This course involves active involvement in the physical, intellectual, emotional, and social growth and well-being of the child. One hour participation weekly is required in the college's Education Laboratory Center. Prerequisite: COM 051; COM 061. (Spring)

ECE 150   Early Childhood Practicum I   3
Students will participate in 100 hours field related work under the supervision of a cooperating teacher who will assist them as they learn to apply theory and ideas gained through previous course work. The class will meet once a week to evaluate

All = Fall, Winter, Spring

activities, share experiences, and assess readiness to direct additional activities. Prerequisite: COM 121 and grade of "C" or better in ECE 115 and ECE 125. (Winter/Spring)

**ECE 220   Curriculum Development &
                    Instructional Materials   3**
This course emphasizes the use of developmentally appropriate practices in curriculum planning for children from birth to age eight. Students will select and construct materials that enhance intellectual, physical, and social/emotional growth. Students will plan and implement instructional objectives, learning objectives, and units of instruction. Two hours of participation in in the college's Education Laboratory Center is required weekly. Prerequisite: COM 121; ECE 125 or 120 (or approved experience in a child care center). (Fall)

ECE 222   Language Arts for Early Childhood   3
This course begins with language development of the child between infancy and eight years of age. It extends knowledge into the development of the language arts; listening, speaking, reading, and writing; at home and in the classroom setting. One hour each week of the term is spent in the college's Education Laboratory Center as part of the coursework required. Prerequisites: COM 121; ECE 125 (or approved experience in a child care center). (Winter)

ECE 225   Music & Movement for Young Children   3
The course will enable students to establish a repertoire of materials and methods to develop music and movement skills in young children. Emphasis will be placed on developing creativity in planning for music and movement activities appropriate for children from infancy to age eight. Participation both in class and one hour per week in the college's Education Laboratory Center is required. Prerequisite: COM 121. (Spring)

ECE 227   Infant/Toddler Care and Education   3
This course emphasizes all components of a developmentally appropriate infant/toddler program. Students will select and construct age appropriate instructional materials that will enhance cognitive, social, emotional, and motor development of infants and toddlers. This course requires one (1) hour per week participation in the college's Education Laboratory Center. Prerequisites: COM 121. (Spring)

ECE 229   Childcare Management   3
This course is designed to introduce students to the managerial needs of a childcare program. Emphasis is placed on the utilization of childcare regulations to manage day-to-day operational issues such as staffing, funding, health and safety needs, and planning for age-appropriate childcare environments. Students will be introduced to a variety of software applications applicable to managing a childcare center. Prerequisites: COM 121; ECE 115; ECE 125. (Fall)

ECE 230   Child Care Administration   3
This course focuses on the unique administrative needs of child care settings. Various components of leadership philosophy and style will be examined. Budgetary and regulatory considerations will be analyzed as well as supervision and training of staff. Prerequisite: COM 121. (Winter)

ECE 240   School-Age Childcare   3
The focus of this course is on the unique needs of school-age children in the childcare setting. Students will examine the developmental characteristics of school-age children in relationship to peer interaction, creative development, cognitive development, and physical development. Students will plan and implement activities appropriate for school-age children in a childcare setting. Students are required to complete 10 hours of

participation in an approved school-age childcare setting. Prerequisite: COM 121; ECE 125; PSY 130. (Spring)

ECE 255   Early Childhood Practicum II   3
As the culmination to the early childhood education programs, students will be assigned to work for 100 hours with a cooperating teacher in an approved early childhood setting. Students will demonstrate competencies in planning and implementation of all classroom activities. A comprehensive portfolio designed to document how students meet program competencies will be deeloped in this course. The class will meet once a week to evaluate activities, share experiences, and assess readiness to direct additional activities. Prerequisite: ECE 150. (Spring)

ECE 290   Cooperative Education I   (All)   Varies
Prerequisite: 27 credits earned in student's curriculum with a 2.0 QPA.

ECE 291   Cooperative Education II   (All)   Varies
Prerequisite: 27 credits earned in student's curriculum with a 2.0 QPA.

ECE 299   Seminar   (TBA)   V

ECONOMICS   Credit Hours

ECO 250   Comparative Economic Systems   3
This course is designed to assist students to understand the myriad of ways that human societies have devised to control to production and distribution of goods and services by familiarizing them with the global diversity of and evolutionary trends in human economic activities and systems from prehistoric to modern times. The strengths and weaknesses of the American economic system are compared and contrasted with those of other peoples and nations both past and present. Prerequisite: COM 121. (TBA)

EDUCATION   Credit Hours

EDU 130   Foundations of Education   3
This course is an introduction to the teaching profession. Students in this course will look at perspectives in American education. Historical aspects of education will be compared to current practices in education. Students will be given opportunities to explore career opportunities in the field of education. Issues in professionalism will also be addressed. Prerequisite: COM 051; COM 061. (All)

EDU 220   Multicultural Education   3
This course is designed for students who are working as teacher's assistants in a multicultural setting. The student also gains from the emphasis on foundations and methods that facilitate the personal growth of learners for which English is not a primary language. Students gain an understanding of multicultural values and traditions, and preferences for thinking and interacting. Prerequisite: COM 121. (Fall)

EDU 290   Cooperative Education I   (All)   Varies
Prerequisite: 27 credits earned in student's curriculum with a 2.0 QPA.

EDU 291   Cooperative Education II   (All)   Varies
Prerequisite: 27 credits earned in student's curriculum with a 2.0 QPA.

EDU 299   Seminar   (All)   Varies

All = Fall, Winter, Spring

EDUCATIONAL TECHNOLOGY

Credit Hours

EDT 110   An Educator's Introduction to the Internet   2
The course introduces educators to the internet browser features, locating Internet resources, assessment of information quality, problem resolution, downloading "plug-ins", and basics of integration of the Internet into classroom environments and professional development. This course is designed for educators and education majors with little or no Internet experience. It is not recommended for Educational Technology majors. Prerequisite: COM 051 and COM 061.   (TBA)

EDT 200   Introduction to Educational Technology   3
This course provides students with an overall understanding of fundamental educational technology concepts including social and ethical considerations, computers across the curriculum, software evaluation and application, and a broad range of hardware used for instructional purposes including multimedia devices. Software and hardware installation, configuration, and usage are emphasized. Prerequisite: COM 121.   (Spring)

EDT 210   Advanced Educational Technology   3
This course provides students an in-depth experience with advanced educational technology concepts and their integration in a wide variety of educational settings. Understanding of social and ethical considerations, computers across the curriculum, software evaluation and application, and a broad range of hardware used for instructional purposes, including multimedia devices, will be reinforced. Analog and digital resources for education are developed and Internet resources are applied. Prerequisite: EDT 200.   (Fall)

EDT 220   Issues & Trends in Educational Technology   3
This course provides students with skills for lifelong learning in educational technology. It covers research methods, resource management, budgeting and funding, as well as current issues and trends in the field of educational technology stressing the role of the educational technologist as a liaison to non-technical users. This course is World Wide Web-based to a very large extent. Prerequisite: EDT 200.   (Winter)

**EDT 290   Cooperative Education
in Educational Technology   6**

ELECTRIC UTILITY TECHNOLOGY

Credit Hours

EUT 100   Electric Utility Technology I   6
This course provides the knowledge and skills to perform general utility work necessary to support electrical distribution contruction and maintenance. As qualified wood pole climbers coming into the program, students will focus on the identification of line materials, proper use and care of line contruction tools and equipment as well as assesmbly and installation techniques. Students will obtain a Commerical Drivers License in preparation for the operation of digger and bucket trucks necessary for conducting line maintenance. By the end of the first semester students will be framing and setting utility poles, installing underground residential services, splicing overhead services, installing house services and, most importantly, complying with all OSHA and safety guidelines. Prerequisite: COM 061   (Fall)

EUT 110   Electrical Systems & Control Wiring   4
This course covers principles and applications of electrical systems and control wiring. Topics include electrical circuits, electrical measurement, circuit analysis. inductance and capacitance, transformers and electrical control wiring. Emphasis is placed on applications for the electric utility industry. Prerequisite: MAT 110; EUT 100.   (Winter)

EUT 120   Electricity Utility Technology II   6
This course introduces students to more advanced line construction activities. Students will install pad and single-phase transformers, street lights, KWH meters as well as three-wire and four-wire meters. Students will learn to check continuity, take voltage readings, check polarity, use capacitance and phase rotation meters as well as meggers. Students will learn the importance of instlling rubber goods on secondary conductors as well as line hose and blankets for primary cover-up. Students will also be expected to operate a single reel trailer and learn the proper technique for sagging primary and secondary conductors. Prerequisite: EUT 100.   Spring

**EUT 130   Wiring Systems, Transformers,
Power Generation and Distribution   4**
This course covers principles and applications of wiring systems, control transformers, and power generation and distribution. Topics include introduction to raceways, basic conduit bending, advanced conduit bending, connectors, disconnects and overload protection, conduit sizing and wire pulling techniques, control circuits and transformers, AC power generation and distribution banks. Prerequisite: EUT 110.   (Spring)

EUT 200   Electric Utility Technology III   6
This course provides knowledge and skills on identifying, installing, and maintaining primary underground residential distribution (URD) equipment. Students will also be trained on various troubleshooting techniques along with associated equipment to pinpoint faults in primary and secondary underground circuits. Extensive time will be spent on distribution transformers, interpreting transformer name plates, wiring configurations, tap setting, paralleling and troubleshooting. Students will be introduced to hot-line tools along with their inspection, testing and maintenance requirements. Applicable safety requirements will be taught, stressed1 and adhered to throughout the course. Prerequisite: EUT 120   Fall

EUT 210   Local and National Electric Codes   3
This course provides a working knowledge of the National Electric Code (NEC) as it applies to the electric utility industry. Topics include fundamentals, general wiring, outside clearance requirements, services, footer calculations, overcurrent protection, transformers and hazardous location wiring. Prerequisite: EUT 130.   (Fall)

EUT 220   Electric Utility Technology IV   6
This course is the culmination of the first three semesters' training and work. In semester four, students will perform advanced line work. This will include such activities as splicing energized conductors, replacing lighting arresters, changing pins and insulators, replacing cutouts and installating cross-arms in energized work areas. Students will be trained in switching and tagging procedures and perform numerous overhead distribution tasks from a pole and bucket-truck requiring the use of hot-line tools. Students will also be trrained in the safe work practices associated with 15kV direct handling along with all applicable insulate and isolate rules. Prerequisite: EUT 200.
      (Spring)

EUT 290   Cooperative Education I   3
Cooperative education is an academic program which integrates college classroom work with planned supervised experience in business, industry, government or community service agencies. The student will obtain placement for a work experience directly related to the program of study in which the student is enrolled

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as a degree candidate. Work assignment must be supervised by a cooperating employer and an academic advisor. Prerequissite: A minimum of 27 credits in the student's curriculum with a 2.0 GPA.   (Summer)

ELECTRONICS   Credit Hours

ELT 100   DC/AC Circuits   4(Lab)
This course will cover theory and principles regarding direct current (DC) and alternating current (AC). Topics include different types of DC/AC sources, waveforms, basic circuit elements, series and parallel circuits and applicable theorems and laws. Prerequisite: MAT 165.   (Fall)

ELT 200   Digital Electronics/Solid State Device   4(Lab)
This course is designed to introduce students to the funamentals of digital logic, digital circuits, and solid state electronics. Topics include number systems, logic gates, Boolean algebra, Karnivaugh mapping, combinational logic, diodes, transistors, amplifiers, and related devices. Prerequisite: ELT 100; PHY 150
                                                        (Winter)

ENGINEERING   Credit Hours

EGR 106   Engineering Graphics II   2(Lab)
This second course in engineering graphics will be taught using AutoCAD. This course is designed to provide the machine tool student and others working in the industry with a basic understanding of mechanical drawing using AutoCAD. The student applied the fundamental principles of mechanical drafting and sketching taught in the previous course to graphically describe machine parts in AutoCAD. A major goals of the course is to provide the student with the knowledge to be able to completely and accurately describe machine paurts by making working drawings. Prerequisite: MTT131.   (Fall)

ENGLISH SPEAKERS OF
OTHER LANGUAGES (ESL)   Credit Hours

ESL 001   Reading I   3
This beginner course is designed to develop students' ability to use reading strategies and to expand vocabulary in order to understand simplified texts. Students should ideally take this course with "ESL 005: Sentence Structure" and "ESL 009: Speaking and Listening I." Three hours of lab instruction per week are required. Prerequisite: Placement tests results or permission of instructor; Co-requisite: ESL 021

ESL 002   Reading II   3
In this course, students expand their reading skills and vocabulary. Students should ideally take this course with "ESL 006: Grammar and Punctuation" and "ESL 010: Speaking and Listening II." Also, three hours of lab instruction per week are required. Prerequisite: Placement tests results, permission of instructor, or passing ESL 001. Corequisite: ESL 022.

ESL 003   Reading III   3
This course is designed for intermediate-level ESL students who need to build their vocabulary and basic reading skills and comprehension so that they can, with the assistance of a dictionary, understand text that is written for native speakers. Students should ideally take this course with "ESL 007: Transition Writing" and "ESL 011: Speaking and Listening III." In addition, three hours of lab instruction per week are required. Prerequisite: Placement tests results, permission of instructor, or passing ESL 002. Corequisite: ESL 023

ESL 004   Advanced Reading IV   3
While previous levels of ESL reading instruction are designed to acquaint students with the special issues relating to reading in a language that is not a native language, this course provides preliminary instruction in competencies that are necessary to function as readers in "regular entry" college courses. The students will receive further practice using reading strategies to which they had been introduced in the first three courses n the ESL Reading course series. In addition, they will learn advanced word-attack skills, word analysis, vocabulary development, and comprehension strategies. Students should ideally take this course with "ESL 008: Writing IV" and "ESL 012: Speaking and Listening IV." In addition, three hours of lab instruction per week are required. Prerequisite: Placement tests results, permission of instructor, or passing ESL 003. Corequisite: ESL 024

ESL 005   Sentence Structure   3
The first of a four-part course series, this course is designed to present the basic structures of standard English sentences, principles of standard idiomatic usage within that structured context, and syntactical rules governing placement of sentence structures. The course is designed primarily for non-native speakers, but native speakers with special language problems or limited sentence instruction may also find the course useful. Students should ideally take this course with "ESL 001: Reading I" and "ESL 009: Speaking and Listening I." In addition, three hours of lab instruction per week are required. Prerequisites: Placement tests results or permission of instructor. Co-requisite: ESL 025

ESL 006   Grammar and Punctuation   3
A continuation of ESL 005, this course is designed to build on students' knowledge of sentence structures acquired in that course and apply them as the basis for rules and principles of English grammar. Some course content, such as idiomatic practice, is designed primarily for non-native speakers; however, the bulk of material is designed to be used by native and non-native speakers alike. Students should ideally take this course with "ESL 002: Reading II" and "ESL 010: Speaking and Listening II." In addition, three hours of lab instruction per week are required. Prerequisite: Placement tests results, permission of instructor, or passing ESL 005. Corequisite: ESL 026.

All = Fall, Winter, Spring

ESL 007   Transitional Writing   3
This course is for advanced beginners who can write basic sentences and have some knowledge of English sentence structure. The course covers basic grammatical structures and introduces students to simple paragraph writing as well as other type of writing needed in everyday life. Students should ideally take this course with "ESL 003: Reading III" and "ESL 011: Speaking and Listening III." In addition, three hours of lab instruction per week are required. Prerequisite: Placement tests results, permission of instructor, or passing ESL 006. Corequisite: ESL 027.

ESL 008   Writing IV   4
This course is the fourth and final offering in the ESL course series. It is designed to allow students to apply and improve sentence structure, grammar, punctuation, and idiom skills initiated in the two previous ESL courses. In addition, this course acts as preparation for English Composition (with successful completion of ESL Reading IV) and presents the principles of effective essay writing which are developed in more depth. A review of essential principles of good sentence writing is presented in the context of preparation and review of five short essay assignments. Students should ideally take this course with "ESL 004: Reading IV" and "ESL 012: Speaking and Listening IV." In addition, three hours of lab instruction per week are required. Prerequisites: Placement tests results, permission of instructor, or passing ESL 007. Co-requisite: ESL 028

ESL 209   Speaking and Listening I   3
This course is for advanced beginners who have some basic knowledge of English and some functional communicative ability (e.g., simple questions and answers on topics of everyday interest). Class time is devoted to speaking for everyday needs, grammar practice, pronunciation, intensive listening to short, simplified narratives and listening for specific information in extended narratives and conversations. Students should ideally take this course with "ESL 001: Reading 1" and "ESL 005: Sentence Structure." In addition, three hours of lab instruction per week are required. Prerequisite: Placement tests results or permission of instructor. Corequisite: ESL 029.

ESL 010   Speaking and Listening II   3
This course is a speaking and listening course for low-intermediate ESL students. Students entering the course should be able to answer questions about their own lives, to expand a spontaneous narrative to three or four sentences. Class time is devoted to speaking in various social situations, the practice of grammar, pronunciation and listening for information in conversations and extended narratives. Students should ideally take this course with "ESL 002: Reading 1I" and "ESL 006: Grammar and Punctuation." In addition, three hours of lab instruction per week are required. Prerequisite: Placement tests results, permission of instructor or passing ESL 009. Corequisite: ESL 030.

ESL 011   Speaking and Listening III   3
This course is a speaking and listening course for low-intermediate ESL students. Students entering the course should be able to answer questions about their own lives, to expand a spontaneous narrative to three or four sentences. Class time is devoted to speaking in various social situations, the practice of grammar, pronunciation and listening for information in conversations and extended narratives. Students should ideally take this course with "ESL 003: Reading III" and "ESL 007: Transitional Writing." In addition, three hours of lab instruction per week are required. Prerequisite: Placement tests results, permission of instructor or passing ESL 010. Corequisite: ESL 031.

ESL 012   Speaking and Listening IV   3
This course is the fourth and final Speaking and Listening course in the ESL series. This course is designed to enhance the abilities of non-native speakers of English to articulate the forty-four phonetic sounds of American English, to produce those sounds more easily and accurately in the syllabic combinations and word contexts characteristic of English, to increase fluency in generating complete and correct spoken English sentences, to sharpen awareness of the meanings of paralinguistic features of English such as inflection, intonation, pitch, and syllabic stress. In addition, instruction and strategies involving more effective listening and greater psychological comfort with the non-native speaker situation will be given. Finally, related issues relating to how the human body produces individual speech sounds, how English dialects have developed and how they differ, and the why spoken English isn't always clearly perceivable in the orthography (spelling system) but is always perceivable in the dictionary-based International Phonetic Alphabet, will be explored as class time and circumstances permit. Students should ideally take this course with "ESL 004: Reading IV" and "ESL 008: Writing IV." In addition, three hours of lab instruction per week are required. Prerequisite: Placement tests results, permission of instructor or passing ESL 011. Corequisite: ESL 032.

ESL 021   Reading Lab I   1
This one-credit lab instruction course is designed to review and reinforce the class materials that are taught in ESL 001. The instructional methods that will be used in the lab instruction course may include— depending on the instructor— all or some of the following student learning strategies:
1. computer-based instruction using special software
2. pencil and paper assignments and practice drills
3. testing and assessment
4. self-paced student learning
5. individualized instruction by the teacher in response to an ESL student's learning needs
6. the questions that ESL students should ask an instructor when clarifying expectations on homework assignments
7. providing a private setting where an ESL student may be feel comfortable sharing personal issues or circumstances that impinge on his or her ability to study, come prepared, and do the best work in class
8. learning how to develop effective college study habits, prioritize homework assignments, and manage deadlines.
Corequisite: ESL 001.

ESL 022   Reading Lab II   1
This one-credit lab instruction course is designed to review and reinforce the class materials that are taught in ESL 002. The instructional methods that will be used in the lab instruction course may include— depending on the instructor— all or some of the following student learning strategies:
1. computer-based instruction using special software
2. pencil and paper assignments and practice drills
3. testing and assessment
4. self-paced student learning
5. individualized instruction by the teacher in response to an ESL student's learning needs
6. the questions that ESL students should ask an instructor when clarifying expectations on homework assignments
7. providing a private setting where an ESL student may be feel comfortable sharing personal issues or circumstances that impinge on his or her ability to study, come prepared, and do the best work in class
8. learning how to develop effective college study habits, prioritize homework assignments, and manage deadlines.
Corequisite: ESL 002.

All = Fall, Winter, Spring

ESL 023   Reading Lab III   1
This one-credit lab instruction course is designed to review and reinforce the class materials that are taught in ESL 003. The instructional methods that will be used in the lab instruction course may include— depending on the instructor— all or some of the following student learning strategies:
1.   computer-based instruction using special software
2.   pencil and paper assignments and practice drills
3.   testing and assessment
4.   self-paced student learning
5.   individualized instruction by the teacher in response to an ESL student's learning needs
6.   the questions that ESL students should ask an instructor when clarifying expectations on homework assignments
7.   providing a private setting where an ESL student may be feel comfortable sharing personal issues or circumstances that impinge on his or her ability to study, come prepared, and do the best work in class
8.   learning how to develop effective college study habits, prioritize homework assignments, and manage deadlines.
Corequisite: ESL 003.

ESL 024   Reading Lab IV   1
This one-credit lab instruction course is designed to review and reinforce the class materials that are taught in ESL 004. The instructional methods that will be used in the lab instruction course may include— depending on the instructor— all or some of the following student learning strategies:
1.   computer-based instruction using special software
2.   pencil and paper assignments and practice drills
3.   testing and assessment
4.   self-paced student learning
5.   individualized instruction by the teacher in response to an ESL student's learning needs
6.   the questions that ESL students should ask an instructor when clarifying expectations on homework assignments
7.   providing a private setting where an ESL student may be feel comfortable sharing personal issues or circumstances that impinge on his or her ability to study, come prepared, and do the best work in class
8.   learning how to develop effective college study habits, prioritize homework assignments, and manage deadlines.
Corequisite: ESL 004.

ESL 025   Writing Lab I   1
This one-credit lab instruction course is designed to review and reinforce the class materials that are taught in ESL 005. The instructional methods that will be used in the lab instruction course may include— depending on the instructor— all or some of the following student learning strategies:
1.   computer-based instruction using special software
2.   pencil and paper assignments and practice drills
3.   testing and assessment
4.   self-paced student learning
5.   individualized instruction by the teacher in response to an ESL student's learning needs
6.   the questions that ESL students should ask an instructor when clarifying expectations on homework assignments
7.   providing a private setting where an ESL student may be feel comfortable sharing personal issues or circumstances that impinge on his or her ability to study, come prepared, and do the best work in class
8.   learning how to develop effective college study habits, prioritize homework assignments, and manage deadlines.
Corequisite: ESL 005.

ESL 026   Writing Lab II   1
This one-credit lab instruction course is designed to review and reinforce the class materials that are taught in ESL 006. The instructional methods that will be used in the lab instruction

course may include—depending on the instructor—all or some of the following student learning strategies:
1.   computer-based instruction using special software
2.   pencil and paper assignments and practice drills
3.   testing and assessment
4.   self-paced student learning
5.   individualized instruction by the teacher in response to an ESL student's learning needs
6.   the questions that ESL students should ask an instructor when clarifying expectations on homework assignments
7.   providing a private setting where an ESL student may be feel comfortable sharing personal issues or circumstances that impinge on his or her ability to study, come prepared, and do the best work in class
8.   learning how to develop effective college study habits, prioritize homework assignments, and manage deadlines.
Corequisite: ESL 006

ESL 027   Writing Lab III   1
This one-credit lab instruction course is designed to review and reinforce the class materials that are taught in ESL 007. The instructional methods that will be used in the lab instruction course may include— depending on the instructor— all or some of the following student learning strategies:
1.   computer-based instruction using special software
2.   pencil and paper assignments and practice drills
3.   testing and assessment
4.   self-paced student learning
5.   individualized instruction by the teacher in response to an ESL student's learning needs
6.   the questions that ESL students should ask an instructor when clarifying expectations on homework assignments
7.   providing a private setting where an ESL student may be feel comfortable sharing personal issues or circumstances that impinge on his or her ability to study, come prepared, and do the best work in class
8.   learning how to develop effective college study habits, prioritize homework assignments, and manage deadlines.
Corequisite: ESL 007.

ESL 028   Writing Lab IV   1
This one-credit lab instruction course is designed to review and reinforce the class materials that are taught in ESL 008. The instructional methods that will be used in the lab instruction course may include— depending on the instructor— all or some of the following student learning strategies:
1.   computer-based instruction using special software
2.   pencil and paper assignments and practice drills
3.   testing and assessment
4.   self-paced student learning
5.   individualized instruction by the teacher in response to an ESL student's learning needs
6.   the questions that ESL students should ask an instructor when clarifying expectations on homework assignments
7.   providing a private setting where an ESL student may be feel comfortable sharing personal issues or circumstances that impinge on his or her ability to study, come prepared, and do the best work in class
8.   learning how to develop effective college study habits, prioritize homework assignments, and manage deadlines.
Corequisite: ESL 008.

ESL 029   Speaking and Listening Lab I   1
This one-credit lab instruction course is designed to review and reinforce the class materials that are taught in ESL 009. The instructional methods that will be used in the lab instruction course may include— depending on the instructor— all or some of the following student learning strategies:
1.   computer-based instruction using special software
2.   pencil and paper assignments and practice drills

All = Fall, Winter, Spring

3. testing and assessment
4. self-paced student learning
5. individualized instruction by the teacher in response to an ESL student's learning needs
6. the questions that ESL students should ask an instructor when clarifying expectations on homework assignments
7. providing a private setting where an ESL student may be feel comfortable sharing personal issues or circumstances that impinge on his or her ability to study, come prepared, and do the best work in class
8. learning how to develop effective college study habits, prioritize homework assignments, and manage deadlines.

Corequisite: ESL 009.

ESL 030   Speaking and Listening Lab II   1
This one-credit lab instruction course is designed to review and reinforce the class materials that are taught in ESL 010. The instructional methods that will be used in the lab instruction course may include— depending on the instructor— all or some of the following student learning strategies:
1. computer-based instruction using special software
2. pencil and paper assignments and practice drills
3. testing and assessment
4. self-paced student learning
5. individualized instruction by the teacher in response to an ESL student's learning needs
6. the questions that ESL students should ask an instructor when clarifying expectations on homework assignments
7. providing a private setting where an ESL student may be feel comfortable sharing personal issues or circumstances that impinge on his or her ability to study, come prepared, and do the best work in class
8. learning how to develop effective college study habits, prioritize homework assignments, and manage deadlines.

Corequisite: ESL 010.

ESL 031   Speaking and Listening Lab III   1
This one-credit lab instruction course is designed to review and reinforce the class materials that are taught in ESL 011. The instructional methods that will be used in the lab instruction course may include— depending on the instructor— all or some of the following student learning strategies:
1. computer-based instruction using special software
2. pencil and paper assignments and practice drills
3. testing and assessment
4. self-paced student learning
5. individualized instruction by the teacher in response to an ESL student's learning needs
6. the questions that ESL students should ask an instructor when clarifying expectations on homework assignments
7. providing a private setting where an ESL student may be feel comfortable sharing personal issues or circumstances that impinge on his or her ability to study, come prepared, and do the best work in class
8. learning how to develop effective college study habits, prioritize homework assignments, and manage deadlines.

Corequisite: ESL 011.

ESL 032   Speaking and Listening Lab IV   1
This one-credit lab instruction course is designed to review and reinforce the class materials that are taught in ESL 012. The instructional methods that will be used in the lab instruction course may include— depending on the instructor— all or some of the following student learning strategies:
1. computer-based instruction using special software
2. pencil and paper assignments and practice drills
3. testing and assessment
4. self-paced student learning
5. individualized instruction by the teacher in response to an ESL student's learning needs

6. the questions that ESL students should ask an instructor when clarifying expectations on homework assignments
7. providing a private setting where an ESL student may be feel comfortable sharing personal issues or circumstances that impinge on his or her ability to study, come prepared, and do the best work in class
8. learning how to develop effective college study habits, prioritize homework assignments, and manage deadlines.

Corequisite: ESL 012.

ENVIRONMENTAL SCIENCES   Credit Hours

ENV 130   The Environment   3
Application of ecological principles to the study of environment and environmental problems, including resource utilization, water, air and land pollution; specific consideration will be given to the human alteration of the biosphere. Prerequisite: COM 061 (or appropriate score on placement tests).   (All/Summer)

ENV 131   The Environment (Honors)   3
This course is designed to introduce students to basic ecological principles and then apply them to a study of the environment and environmental problems related to human population growth. Topics will include: resource utilization; water, air, and land pollution. Specific consideration will be given to the human alteration of the biosphere. Prerequisite: COM 121 English Composition; eligibility for the Honors Program.   (TBA)

ENV 150   The Visible Universe   3
A survey of the cosmic environment with special emphasis on the universality of motion; the structure of the solar system and the Milky Way galaxy are delineated and methods of data acquisition are studied. Extensive use is made of the Planetarium as a problem-solving computer system. Prerequisite: COM 061.
    (Spring)

ENV 155   The Invisible Universe   3
Development of coordinate systems to locate objects which are not visible to the unaided eye; major topics include astro-photography, radio telescopes, and research satellites; laboratory work involves analysis of photographic data and radio telescope information.   (Varies)

ENV 170   Intro. to Environmental Science   4(Lab)
This course is a study of the fundamental concepts of ecology and conservation and a survey of the major environmental issues of today, including biodiversity, human population growth, land use, mineral and energy resources, and air and water pollution. In addition to the scientific and technological principles that pertain to the study of the environment, the course will introduce historical and contemporary economic, political, and legal approaches to environmental protection. Prerequisites: CHE 120; BIO 150.   (Spring - even years)

ENV 290	**Cooperative Education I** (TBA)	**Varies**
ENV 291	**Cooperative Education II** (TBA)	**Varies**
ENV 299	**Seminar** (TBA)	**Varies**

GEOGRAPHY   Credit Hours

GEO 101   Introduction to World Geography   3
A broad introduction to concepts and methods in the discipline of Geography. The course surveys world regions, examining physical, cultural, political, historical and economic aspects as well as the interconnections between regions. Prerequisites: COM 051, COM 061.   (TBA)

All = Fall, Winter, Spring

HEALTH

Credit Hours

HEA 110   Health   3
This course presents issues relevant to today's health conscious society and contemporary approaches to maintaining good health. Discussions focus on such topics as stress, hypertension, nutrition, smoking, cancer, sexually transmitted diseases, depression, and AIDS. Prerequisite: COM 061.   (All/Summer)

HEA 119   Personal Nutrition   1
This one-credit course enables students to learn basic nutrition principles and apply them to their own eating practices. Topics include energy and weight control, exercise, supplements, food safety, food labels and dining out. Learn the latest about fat, sugar, complex carbohydrates, sodium and fiber. Discover how to get more or less of each. Students will do a limited evaluation of their own eating habits based on the new Food Guide Pyramid and some basic nutrient analysis. Evaluation is followed by problem-solving methods for improving your eating behavior. Finally, students will become familiar with current reliable sources of nutrition information. Prerequisite: COM 061.
(Spring)

HEA 130   Health Care Professionalism   1
This course will introduce the health care student to professional behavior in the patient care setting. Course topics include a discussion on professionalism in health care, the relationship between the patient and the health professional, and respectful interaction between the patient and the health professional.   (Spring)

HEA 140   Internet for Health Care Professionals   1
This course will enable the health care professional to access information on the Internet relevant to their defined interest areas. Each student will develop skills through application of demonstrated techniques of internet research. (Fall/Summer)

HEA 161   Principles of Nutrition   3
This course introduces the student to the fundamental principles of human nutrition, including the biochemistry of nutrients in the body. The practical skills of selecting an adequate and safe eating plan as part of a healthy life-style are taught. Related concepts and activities include: food records, the RDAs, food labels, the Food Guide Pyramid, weight control, exercise, and cultural food practices. Students also examine reliable nutrition resources and learn ways to discern myths of food faddism. Prerequisites: COM 061 (or appropriate reading level score on placement tests); high school Biology and Chemistry (provided it has been no longer than 5 years since graduation) or BIO 120 and CHE 120.   (Fall)

HEA 200   Introduction to Pharmacology   2
Basic pharmacologic principles will be introduced. Pharmacologic principles related to the use of selected major classifications of drugs and implications for health care providers relative to the administration of those drugs will be addressed. Pharmacology-related issues will be integrated in course content. Prerequisites: BIO 250 or PNP 110; COM 051; COM 061.   (Summer)

HEA 220   Clinical Implications of Laboratory Tests   1
This course is designed for allied health students who wish to increase their understanding of clinical laboratory tests. The course will cover the reasons tests are ordered and the interpretation of lab results in order to provide better patient care. The course will include medical terminology, clinical laboratory personnel, specimen collection, safety, infection control and frequently ordered lab tests. Case studies will be used to correlate laboratory data with disease states. Prerequisites: BIO 250 & BIO 255; COM 061.   (Fall)

HEA 299   Seminar   (TBA)   varies

HEALTH & PHYSICAL EDUCATION

Credit Hours

HPE 101   Tennis   2
The focus of this course is on the development and acquisition of skills, techniques, and knowledge to enable students to successfully participate in tennis on a limited basis. Emphasis will be placed on the enrichment, enhancement, and improvement of student's physical, social and mental wellness. Prerequisites: none.   (Fall/Spring)

HPE 102   Basketball   2
This course will focus on the skills, techniques, drills, strategies and rules which are essential for effective play in the game of basketball. The students will engage in drill sessions, small game sessions (three-on-three) and full-court games. Skill testing and game play will form the basis for the evaluation of proper basketball techniques. Prerequisite: COM 021 Basics of College Reading.

HPE 104   Racquetball   2
This course will focus on the rules, skills, techniques, drills and strategies which are essential for effective play in the game of racquetball. The students will engage in drill sessions along with singles and doubles game play. Skill testing, along with game play, will form the basis for the evaluation of proper racquetball techniques. Prerequisite: COM 021 Basics of College Reading.

HPE 106   Volleyball   2
This course will focus on the rules, skills, techniques, drills and strategies which are essential for effective play in the game of volleyball. The students will engage in drill sessions and game play. Skill testing, along with game play, will form the basis for the evaluation of proper volleyball techniques. Prerequisite: COM 021 Basics of College Reading.

HPE 110   Ballroom Dancing   2
The focus of this course is on the development of skills, techniques and knowledge to enable students to successfully participate in ballroom dancing on a lifetime basis. Emphasis will be placed on the enrichment, enhancement and improvement of student's rhythmic movement that will be applied to different dance rhythms. Prerequisite: COM 021 Basics of College Reading.

HPE 116   Personal Fitness   2
A study of the application of physical fitness techniques (exercise) for both males and females related to the development and improvement of strength, flexibility, and cardiovascular endurance. Area of emphasis include effects of exercise on the physiological systems of the body, development of individualized fitness programs, and development of appreciation of the values derived from such training programs and other lifetime sports activities. Prerequisites: none.
(Summer/Winter)

HPE 120   Personal Defense   2
Basic self-defense techniques will be taught with a focus on balance, reaction, confidence, safety and awareness. The issue of violence and possible alternative will be explored. Discussion and lecture time will be utilized throughout the course as well as hands-on participation. Both cognitive and psychomotor skills are necessary components of this course.   (Summer)

HPE 125   Strength Training & Conditioning   2
This course emphasizes the safe and effective techniques involved with progressive resistance weight training. Free weights, resistance machines and specific strength exercises are incorporated in the development of individuals training

All = Fall, Winter, Spring

programs. Emphasis will be placed upon individual needs for developing strength, endurance and flexibility. Equipment consideration, maintenance, safety, organization and injury prevention are covered. Prerequisite: HPE 116.   (Fall/Spring)

HPE 130   Introduction to Rock Climbing   2
Students will learn the fundamentals of safe rock climbing and the terminology inherent to both indoor and outdoor climbing as well as practice various body positions, handholds, and footwork. Discussion and lecture time as well as hands on participation will be utilized throughout the course. The course emphasizes cooperation and communication while practicing climbing as a member of a group and on an individual basis.
(Summer/Winter)

HPE 140   Beginning Swimming   2
The focus of this course in on the development and acquisition of skills and knowledge needed to achieve the fundamentals of swimming. Prerequisite: COM 021 Basics of College Reading.

HPE 142   Intermediate Swimming   2
The focus of this course in on the continued development and acquisition of skills and knowledge needed to achieve a higher level of swimming. Students should know how to swim freestyle and backstroke. Prerequisite: HPE 140 Beginning Swimming or permission of instructor.

HPE 144   Aquatic Exercise   2
The focus of this course in on the development and acquisition of skills and knowledge needed to understand and execute the fundamentals of water exercise. Prerequisite: COM 021 Basics of College Reading.

HEATING, VENTILATION, AIR CONDITIONING & REFRIGERATION   Credit Hours

HAC 100   Introduction to Refrigeration   3
This course covers the design and function of the major components of a refrigeration system. The refrigerant cycle and heat transfer will be discussed. Particular attention is placed on the use of hand tools and service procedures. Prerequisite: COM 061.   (Fall)

HAC 101   Introduction to Refrigeration Lab   1
The lab is designed to provide a hands-on approach in the proper installation and service of a refrigeration system. Particular attention will be given to the procedures of leak detection, evacuation and charging of a refrigeration system. Prerequisite: HAC 100 may be taken concurrently.   (Fall)

HAC 110   Architectural Blueprint Reading   3
The basic principles of reading and interpretation of architectural drawings will be presented. Emphasis is placed on the skills that are needed to understand the drawings and relate them to the building trades. The course will include these major topics: Architectural Floor Plans, Architectural Section Drawings, Mechanical System Drawings, Plumbing Systems Drawings, Electrical System Drawings.   (Fall)

HAC 120   Introduction to Electricity   3
This course introduces the student to the fundamental principles of voltage, current, resistance and magnetism. Also, these principles will be applied to series circuits, parallel circuits, and electrical meters. Prerequisite: MAT 110 may be taken concurrently.   (Winter)

HAC 121   Introduction to Electricity Lab   1
The lab is designed to give a hands-on understanding of direct and alternating current as they apply to series and parallel circuits. Electric meters, capacitors and three phase circuits will also be emphasized. Prerequisite: HAC 120 may be taken concurrently.   (Winter)

HAC 130   Heating, Ventilation, Air Conditioning & Refrigeration Electrical Controls   3
This course covers the design and function of various heating, ventilation, air conditioning and refrigeration electrical controls. Basic electric motors and their starting components will also be discussed. Special emphasis will be placed on troubleshooting these electrical controls. Prerequisite: HAC 120.
(Winter, Spring)

HAC 131   Heating, Ventilation, Air Conditioning and Refrigeration Electrical Controls Lab   1
This lab covers the drawing of wiring schematics as well as the building and troubleshooting of various refrigeration and air conditioning control circuits. Prerequisite: HAC 130 and HAC 121.   (Winter, Spring)

HAC 140   Commercial Refrigeration   3
This course will cover the design, installation and service of commercial refrigeration equipment and components. Special emphasis will be placed on troubleshooting of electrical components as well as the mechanical system. Prerequisites: HAC 100, HAC 130.   (Winter, Spring)

HAC 141   Commercial Refrigeration Lab   1
This course covers the complete installation of a walk-in cooler/freezer and ice machine. Special emphasis will be placed on service techniques and troubleshooting. Prerequisite: HAC 131 and HAC 101, HAC 140.   (Winter, Spring)

HAC 150   Heating and Air Conditioning Systems   3
This course covers the fundamentals of heating and air conditioning systems in use today. System efficiencies, venting practices and sizing will be discussed. Special emphasis will be placed on installation, maintenance and troubleshooting. Prerequisite: HAC 140.   (Spring)

HAC 151   Heating & Air Conditioning Systems Lab   1
This course is designed to cover the practical application of installing, maintenance and troubleshooting of gas, oil and electric heating systems. Prerequisite: HAC 141 and HAC 150.   (Spring)

HAC 200   Psychrometric Charts & Heat Loads   3
This course will cover the data and procedures necessary to accurately calculate heat gain and heat loss of residential and commercial buildings. Psychrometric charts and their relevance to human comfort will be covered. Prerequisites: CHE 120; HAC 150 (may be taken concurrently); and MAT 165.   (Spring)

HAC 210   Air Distribution   3
This course will cover the dynamics of air distribution as they apply to air movement through a mechanical system. The effects on human comfort and health from the air distribution system will be covered as well as the procedures for duct design and layout. Prerequisites: HAC 150; HAC 200 (may be taken concurrently); and PHY 150.   (Spring)

All = Fall, Winter, Spring

HISTORY

Credit Hours

HIS 110   History of the United States to 1877   3
The course is a survey of the major elements in the development of the United States from the European settlements through 1877. The colonial experience, the Revolutionary War period, the Early Republic, the Jacksonian Era, the expansion and sectionalism of this country, the Civil War, and the Reconstruction Period will be covered. Prerequisites: COM 051; COM 061.   (Fall/Spring)

HIS 115   History of the United States Since 1865   3
This course covers the period from the Hayes administration to the present: industry, labor and the farmer during the nineteenth century; the Progressive movement; the emergence of the United States as a world power through two world wars; the Great Depression and the New Deal; the problems of the United States in the contemporary world. Prerequisite: COM 051; COM 061.   (Winter)

HIS 120   Western Civilization: To 1600   3
This course studies the foundation of European culture and institutions from prehistory to the end of the sixteenth century with an emphasis upon analysis of the dynamics of change in history. Prerequisite: COM 051; COM 061.   (Fall)

HIS 125   Western Civilization: 1600-1945   3
The course studies European history from the seventeenth century to 1945, with special emphasis placed on the study of ideologies, cultural and institutional processes of change and the impact of the European world upon the non-European world. Prerequisite: COM 051; COM 061.   (Winter)

HIS 130   Introduction to Contemporary History   3
This course will examine the origins of World War II and emphasize the decline of European hegemony from the end of World War II to the present day. It is intended to be of use to all who feel the need for detail presentation of the major developments in Europe and the world during the last four decades. Prerequisite: COM 051; COM 061.   (Spring)

HIS 135   America's Civil Rights Movement   3
America's Civil Rights Movement is a comprehensive history of the people, the stories, the events, and the issues of the 20th Century struggle for justice in America. The course focuses on the period of American History from World War II to the present. Prerequisites: COM 051; COM 061.   (TBA)

HIS 219   The American Civil War   3
This course is designed to facilitate student exploration of topics pertaining to the American Civil War. Essentially a survey, the course considers causation, development and a range of issues including slavery, execution of the Civil War, effects of the Civil War on society with respect to social, economic, and political development. Finally the course considers the "watershed" outcomes of the Civil War, particularly those related to race and racial relations. An analytical approach is applied to this course. Prerequisite: COM 121 English Composition.   (TBA)

**HIS 255   Interpreting Lives: Rites of Passage, Personal
                History, & the Life Cycle (Honors)   3**
Same as ANT 255 & PSY 255. See ANT 255 for course description.

HIS 290   Cooperative Education I   (All)   **Varies**
Prerequisite: 27 credits earned in student's curriculum with a 2.0 QPA.

HIS 291   Cooperative Education II   (All)   **Varies**
Prerequisite: 27 credits earned in student's curriculum with a 2.0 QPA.

HIS 299   Seminar   (TBA)   **Varies**

HUMANITIES

Credit Hours

HUM 111   Introduction to Drawing   3
This course introduced the basic principles of drawing. Emphasis is on studying the elements of design, developing the skills to use these concepts objectively and executing ideas on a two-dimensional surface. Students will be required to create independent works of art and to participate in field trips to museums and art galleries. Prerequisites: COM 051.   (All)

HUM 112   Drawing   3
This course is a continuation of the principles learned in Introduction to Drawing and will utilize black and white media. It will also introduce color as an element in drawing using the dry media of colored pencils and pastels. Drawing II focuses on the act of drawing as a process. Students will further their knowledge of the many different expressive qualities of drawing using direct observation and hands-on participation. Students will participate in field trips to museums and art galleries and write about those experiences. Prerequisite: HUM 111. (TBA)

HUM 113   Design   3
Students will explore the basic elements of art: line, form, color and texture. Both black and white and color media will be used in this course. Students will develop and analyze visual systems of order based on balance, variation, proportion, emphasis and rhythm. Presentation software skills will be learned and utilized in this course for design presentation purposes. Prerequisite: COM 051.   (TBA)

HUM 121   Painting   3
Students work with pastels to explore fundamental color theories. This dry medium affords many opportunities to further drawing skills while incorporating the challenges presented by color. Although creativity is encouraged, emphasis is on learning the basics. Prerequisites: COM 051; HUM 111 or permission of the Instructor.   (Spring)

HUM 201   Art Appreciation   3
This course studies the nature of art and compares a variety of art expressions through observation and group interaction. Field trips to museums and exhibits are a part of the course. Prerequisite: COM 121.   (All)

HUM 210   Multi-Cultural Aspects of Art   3
This course will focus on art made by Latinos, African-Americans, and Native Americans from both a historical point of view and a contemporary venue. Socioeconomic, personal, and historical factors will be examined when tracking the evolution of work made within a culture. Emphasis will be placed on viewing art, interpreting the images seen, and interacting via group discussions and presentations. Prerequisites: COM 121.   (TBA)

HUM 221   Music Appreciation   3
This course provides background in music and establishes the relationships of music with art, literature, and history. Topics for class discussion include selected masterpieces, the works of composers, musical forms and the styles of the baroque, classical, romantic, and contemporary schools. Recorded compositions of each school will be studied, analyzed, and compared. Prerequisite: COM 121.   (Spring)

All = Fall, Winter, Spring

HUM 231   World Literature I   3
Selected works from ancient times to 1600 C.E. are examined to show the development of humanities and the development and characteristics of the major literary genres. Prerequisite: COM 121.   (Winter)

HUM 235   World Literature II   3
Selected works from the sixteenth to the twentieth centuries are examined to show the changing forms of literature including revision of genre characteristics and the emergence of new themes, conflicts, and values. Prerequisite: COM 121. (Spring)

HUM 241   American Literature I   3
The works of major American writers from the Colonial period to the Civil War period are examined. Cultural and philosophic ideas reflected in the literature of these periods are discussed. Prerequisite: COM 121.   (Fall)

HUM 245   American Literature II   3
The works of major American writers of the late nineteenth and early twentieth centuries are examined. The changing cultural and philosophic ideas represented in the literature are discussed. Prerequisite: COM 121.   (Winter)

HUM 249   Contemporary American Literature   3
The works of the major contemporary writers from 1950 to the present are examined. The changing cultural and philosophic ideas represented in the literature are discussed. Prerequisite: COM 121.   (Spring)

HUM 251   Introduction to Drama   3
The course explores the nature and development of dramatic literature. In addition to focusing on the literary techniques in representative works students also examine theatrical effects used to interpret individual plays. Prerequisite: COM 121.
                                                                (Fall)

HUM 255   Introduction to Shakespeare   3
The course introduces students to a sampling of Shakespeare's writings. Students will read and discuss a representative play from each genre - history, comedy, tragedy, and romance - as well as many of the sonnets and a longer poem. Learning enhancements such as video and audio tapes as well as class presentations supplement the reading and class discussion to facilitate students' ability to write critical papers incorporating literary criticism. Prerequisite: COM 121.   (TBA)

HUM 261   History of Film   3
The course is a chronological study of the development of the cinema. At least one movie is shown and discussed each week. Prerequisite: COM 121.   (All)

HUM 271   Introduction to Philosophy   3
The course is an introduction to the major questions raised by philosophers about the nature of man, the universe, and society. The course also examines well-known contemporary philosophies such as humanism, pragmatism, and dialecticism. Prerequisite: COM 121.   (All)

HUM 275   Introduction to Ethics   3
This course is an introduction to the major questions raised and theories asserted by philosophers on ethical issues such as the nature of good and evil, right and wrong action, the definition of a "virtuous" life, as well as distinctions between concepts such as relative and absolute values. Prerequisite: COM 121. (TBA)

HUM 276   Ethics (Honors)   3
This course will involve students in analysis and evaluation of primary texts of numerous ethical theories, western and eastern, ancient through contemporary. It will also enable students to identify the assumptions and implications of these theories when applied in decision-making of an ethical nature. Students will conduct research using various kinds of primary and secondary print sources, interviews, electronic media, and fieldwork. They will have the opportunity to apply their knowledge of moral theory and methodology by planning, executing, and evaluating projects on certain ethical issues in interdisciplinary fields such as health care, government, counseling, business, journalism, and academics. Ultimately this course will lead students to a deeper understanding of the ethical assumptions and implications involved in their own decision-making processes as well as those of other individuals, social institutions, and cultures. Prerequisite: COM 121; eligibility for the Honors Program.   (TBA)

HUM 280   Introduction to Navajo Studies (Honors)   4
This course will engage students in discovery of Navajo philosophy, life ways, language, traditions, healing practices, history and art. Other topics to be explored include such items as the relationship between the Navajo Nation and other political units both local and national. Students will derive information from primary texts and other sources. In the analysis process, students will identify fact from fiction in the readings for the course. Additionally, students will debate issues which reflect both traditional and contemporary concerns of the Navajo. Prerequisites: COM 121 and eligibility for the Honors Program.   (TBA)

HUM 281   Leadership Development Studies (Honors)   3
This course provides a forum to explore the concept of leadership and to develop and improve leadership skills. The course incorporates readings from the humanities, experiential exercises, films, and contemporary readings on leadership. Prerequisites: COM 121 and eligibility for the Honors Program.
                                                                (TBA)

HUM 299   Seminar   (TBA)   varies

HUMAN SERVICES   Credit Hours

HMS 110   Introduction to Human Services   3
This is an introductory course which identifies basic social problems, their causes, treatment, and the effects upon society. The course will put emphasis upon the role and function of the human services worker, the dynamics involved in the helping process, and the problems facing local social agencies which exist to respond to social problems in the community. Prerequisite: COM 051; COM 061.   (Fall/Spring Evenings)

HMS 125   Human Services and the Law   3
Introduction to the laws and regulations governing the human service delivery systems. Topics covered include consumer rights, confidentiality, professional ethics, documentation and fiscal management. Prerequisite: HMS 110.   (Winter)

HMS 140   Health & Safety in Human Services   3
This course provides basic understanding of appropriate medical terminology, infectious diseases, pharmacology, and basic client care skills, including mobility and transportation. The course will also focus on household management skills, physical mechanics and OSHA regulations. Prerequisite: HMS 110.   (Spring)

HMS 215   Human Service Methods & Practice I   4
This is the first of two courses examining the concepts, practice principles, skills, and methods used to provide human services. This course focuses on service delivery to individuals and families. Emphasis is placed on case management a model for service delivery. Topics covered include intake interviewing, assessment, service planning, and interventions. Various ethical

All = Fall, Winter, Spring

and legal issues affecting human service delivery are explored. Case studies are used to illustrate the principles of case management. Laboratory work is used to develop effective intake interviewing skills with a strong focus on the attitude and characteristics of the interviewer. Prerequisites: COM 121; HMS 110; and PSY 120. (Fall)

HMS 216   Human Service Methods & Practice II   3
This is the second of two courses examining the concepts, practice principles, skills, and methods used to provide human services. This course focuses on service delivery to groups and communities. Content includes group process, organizational structures, program planning, resource development, and knowledge of community systems. Additional emphasis is placed on technology in human services as method of facilitating documentation, treatment planning, communication, implementation strategies, and professional training. Prerequisites: HMS 215 and SST 110. (Winter)

HMS 240   Poverty and Social Welfare Policy   3
This course focuses on current social policy issues as they affect the following major areas of social work practice: poverty, aging, mental health, physical health, and child welfare. Social welfare policies are evaluated from social, economic, and political perspectives. The course provides an historical overview of the major social welfare policies to combat poverty and a critical appraisal of current welfare reform policies. Attention is given to the relationship between research knowledge about poverty and current policies. The effects of gender, ethnicity, and class on patterns of poverty and policy responses are also examined. Prerequisites: COM 121, HMS 110. (Spring)

HMS 250   Fieldwork in Human Services I   3
This course will provide students with on-site experience in a variety of human service settings. It includes seminar discussions of experiential learning. Prerequisite: Approval of Division Chair; at least 40 credits earned; cumulative grade point average 2.0 or better; 21 credits earned in Social Science/Human Services courses, including PSY 120 and HMS 215 with grades of "C" or better. (All)

HMS 251   Fieldwork in Human Services II   3
This course is a continuation of HMS 250 Fieldwork in Human Services I. Prerequisite: HMS 250. (All)

HMS 299   Seminar   (TBA)   varies

INDUSTRIAL MAINTENANCE   Credit Hours

IMT 100   Mechanical Systems I   4
Mechanical I presents practical preventive/predictive maintenance procedures for industrial mechanical systems. Included are refractory repairs, fabrication/installation of pipe systems, boiler and valve service and repair, fabrication of repair parts and the repair of mechanical pumps and drive trains. Troubleshooting of all mechanical systems will be emphasized. Prerequisite: none. (Spring)

IMT 110   Fluid Systems I   3
The course is designed to provide the student with a study of basic fluid power system application, repair and preventative maintenance in the industrial setting. Includes: servicing, fabricating, and repairing of pneumatic and vacuum system components. Prerequisite: none. (Winter)

IMT 120   Electrical Systems I   3
This course introduces students to electrical systems and components applicable to industrial maintenance. Basic

theories relating to electrical controls, electric motors and generators, and panel building. Troubleshooting experiences are used in a laboratory setting. Prerequisite: none. (Spring)

IMT 130   Industrial Maintenance HVAC/R   4
This is an introductory course designed to give students the entry skills needed to work in an industrial setting. Students will learn the basics of HVAC/R systems and trouble shooting skills. Students will also be prepared to take the EPA certification test. Prerequisite: IMT 120. (Winter)

IMT 135   Electrical Circuit I: DC Theory   4(Lab)
This course is the first half of Electrical Circuit and will cover theory and principles as applicable in a DC circuit. Topics include voltage, current, resistance power, circuit laws, network theorems, analysis of series, parallel, and more complex circuits, inductance and capacitance. Prerequisites: MAT 160 and COM 061. (Fall)

IMT 145   Electrical Circuit II: AC Analysis   4(Lab)
This course is the second half of Electrical Circuit and will cover theory and principles as applicable in an AC circuit. Topics include different types of AC sources, sinusoidal alternating waveforms, basic circuit elements, phasors, AC power, series and parallel AC circuits, network theorems, resonance, polyphase systems and transformers. Prerequisites: MAT 165, EET 130. (Winter)

IMT 200   Mechanical Systems II   4
Mechanical II presents an advanced course in practical preventive/predictive maintenance procedures for industrial mechanical systems. Throughout this course, the student will develop skills in soldering, oxyacetylene cutting/welding, stick, and TIG welding, and plasma and air-arc cutting. The student will be shown and taught systems to industry standards. Prerequisite: IMT 100. (TBA)

IMT 210   Fluid Systems II   4
The course is designed to provide the student with a study of advanced fluid power system application, repair and preventative maintenance in the industrial setting. Includes: servicing, fabricating, and repairing of hydraulic system components. Prerequisite: IMT 110. (Spring)

IMT 220   Electrical Systems II   4
The course applies principles studied in Electrical Systems I and additional electronic skills learned in this course in an industrial setting, advanced methods of maintenance, troubleshooting, preventive maintenance and construction are utilized in the applications. Prerequisite: IMT 120. (Fall)

IMT 235   Digital Circuit   4(Lab)
This course is designed to introduce to the students the fundamentals of digital logic and the circuits based on the logic. Emphasis will be placed on the design and testing of digital circuits. Topics include Number Systems, different Codes, Logic Gates, Boolean Algebra, Karnaugh Map, Combinational Logic, flip-flops, Sequential Logic, Counters, Registers, Memories and related applications. Prerequisites: EET 140, MAT 160. (Fall)

IMT 275   Industrial Electronics   4(Lab)
This course has been designed to provide basic knowledge to the students in electronic/electrical control used in the industry. The course will cover many areas of electronic control that include control system components and applications, electrical machines and associated controls, closed-loop control systems and introductory robotics. Topics include transducers and sensors, solid state devices, control diagrams, operational amplifiers, industrial motors and motor control, PLC and introductory robotics. Prerequisites: EET 150, EET 230. (Winter)

All = Fall, Winter, Spring

IMT 285   Principles of Programmable
Logic Controller (PLC)   4(Lab)
This course will focus on the underlying principles of how PLC's work and thus provide a basic understanding of programmable controller fundamentals, operation, programming and interfacing. Topics include relay-type instructions, logic ladder diagrams, timer, counters, sequencers, analog input/output and troubleshooting. Prerequisites: EET 150, EET 230.   (Spring)

INFORMATION TECHNOLOGY   Credit Hours

IFT 100   Introduction to Information Technology   3
This course provides students with an overview of computer systems and related information technology issues. Topics include historical development and basic functions of computers; computer systems; major computer applications, data communications and networks; graphics and multimedia; ethical and social issues; and career opportunities. The operating system is introduced and basic operating system commands and conventions are explained and utilized. Prerequisite: COM 061 and MAT 020.   (Fall/Spring)

IFT 101   Introduction to Personal Computers   1
This course is designed to view the personal computer as a workable tool. The user will learn what a computer is, what it is used for, and how it works in general. Current computer users would also benefit from taking this course to fill in the gaps in their knowledge. While emphasizing the basic workings of a computer, the course will include an overview of software. Prerequisite: COM 061 or appropriate score on placement tests.
(TBA)

IFT 102   Introduction to Windows Software   1
This course is designed to provide the student with an introductory knowledge of the basics of Windows, an operating system for personal computers. The student will receive instruction and hands-on experience using Windows on PCs. Prerequisites: COM 061 and MAT 020 or appropriate score on placement tests.   TBA

IFT 103   Introduction to Word Processing Software   1
This course is designed to provide the student with an introductory knowledge of the basics of word processing. The student will receive instruction and hands-on experience using PCs. Although it would be helpful, keyboarding ability is not a necessary skills for successful completion of this course. Prerequisites: COM 061 and MAT 020 or appropriate score on placement tests.   TBA

IFT 104   Introduction to Spreadsheet Software   1
This course provides students with microcomputer hands-on experience using spreadsheet software to solve a variety of business problems on PCs. Students will create, edit, save, and print worksheets and graphs. Prerequisites: COM 061 and MAT 020 or appropriate score on placement tests.   TBA

IFT 105   Introduction to Presentation Software   1
This course is designed to provide the student with an introductory knowledge of the basics of presentation software. The student will receive instruction and hands-on experience on PCs. Although it would be helpful, keyboarding ability is not a necessary skill for successful completion of this course. Prerequisites: COM 061 or appropriate score on placement tests.
(TBA)

IFT 106   Introduction to Database Management
Software   1
This course provides students with microcomputer hands-on experience using database software to record, track, and manipulate data on PCs. In addition to the database, students will create reports and forms to output information in a variety of usable formats. Prerequisites: COM 061 or appropriate score on placement tests.   (TBA)

IFT 107   Introduction to the Internet   1
This course is designed to provide the student with an introductory knowledge of and exposure to the Internet. The student will receive instruction and hands-on experience on PCs. Although it would be helpful, keyboarding ability is not a necessary skill for successful completion of this course. Prerequisites: COM 061 or appropriate score on placement tests.
(TBA)

IFT 108   Introduction to Mail Management Software   1
This course provides students with microcomputer hands-on experience using mail management software to help manage the sending and receiving of files and messages, regardless of the internet mail service utilized on PCs. Prerequisites: COM 061 or appropriate score on placement tests and MAT 020.   (TBA)

IFT 110   Microcomputer Applications   3
This course provides students with microcomputer hands-on experience using the essential software packages in use in the majority of business and private operations. Initially, students will learn to use the Windows environment and will also use word processing, spreadsheet, and database software to solve a variety of problems. The specific applications software which will be used includes Windows, Word, Excel, and Access. Students will also access the Internet. Prerequisites: COM 061 or appropriate score on placement tests and MAT 020.   (All)

IFT 120   Advanced Microcomputer Applications   3
The course will develop students' basic skills in introducing graphics into word processing documents. Students will study and use advanced features of spreadsheet packages and will continue his/her development of database management system skills including advanced design and query with emphasis on relational aspects. Students will also develop skills in creating presentations. Students will also incorporate information from the Internet into their document preparation. Prerequisites: IFT 110 and COM 121.   (All)

IFT 130   Expert Office Applications   3
This course provides students with the advanced skills needed to efficiently utilize the features of Microsoft Office. Students will be introduced to the proper procedures to create and manipulate sophisticated documents, workbooks, databases, and presentations suitable for coursework, professional purposes, and personal use. At the completion of this course students will be prepared to demonstrate their proficiency in the Microsoft Office applications by taking the Microsoft Office User Specialist (MOUS) exams. Prerequisite: IFT 120.   (Spring)

IFT 140   Integrating Office Applications   3
This course provides students with the skills needed to effectively integrate a suite of software applications in order to maximize the software's capabilities. Students will use a variety of techniques to integrate information among the varying packages of the Microsoft Office suite. Prerequisite: IFT 120.   (Winter)

IFT 165   Desktop Publishing   3
This courses will help students to write, design and produce effective publications using new computer software and hardware. Students will see how the writing process is used in developing ideas, planning and drafting articles and closely copyediting final products. Principles of design will be discussed for a variety of genres such as newsletter, brochures and websites. Students will identify opportunities for producing and publishing these documents beyond the classroom. Audience

All = Fall, Winter, Spring

and purpose considerations will be a guideline throughout the writing, designing and publishing process. Additionally, opportunities for producing and publishing these documents will also be identified. Throughout the course, students will develop their skills in using computer software and hardware that will enable them to become desktop publishers. Prerequisites: COM 121 or COM 122 and IFT 110 or permissions of instructor. (Fall/Spring)

IFT 200   Customer Service Principles   1
This course provides students with a background in customer service skills needed by help-desk professionals. Techniques in listening, communications, problem solving, human relations, teamwork, and time management are emphasized. Prerequisites: BUS 100 and IFT 120. (Winter)

IFT 210   Help Desk User Support   3
This course provides students with the skills needed to support computer users within the organization. Students will learn to identify the appropriate tools, technologies, and processes to assess and meet computer user needs. Students will also address many different aspects of the career field of computer user support. Prerequisite: IFT 110. (Spring)

IFT 220   Current Issues in Computing   3
This course will emphasize case studies, discussions, and research concerning state-of-the-art topics and concerns in computing. Students will write papers on topics of current interest and make an oral presentation to the class. It is intended that this course will be taken near the end of the program of study. The specific course content can be expected to vary from one term to the next as new issues rise to the forefront of the field of information technology. Prerequisites: NET 125 and COM 121. (Spring)

LAW ENFORCEMENT   Credit Hours

LAW 135   Introduction to Criminal Justice   3
This introductory course is a comprehensive overview of the criminal justice system. The courses focuses on crime in America, police process, courts and punishment, the prison system, and contemporary topics in law enforcement. Prerequisites: COM 051; COM 061. (Fall)

LAW 140   Criminal Law   3
An introduction to the Pennsylvania Crimes Code, including culpability, use of force, Act 64 (Drug Act), laws of search and seizure, preparation of citations, complaints, arrest and search warrants, and miscellaneous laws. Prerequisites: COM 051; COM 061. (Winter)

LAW 150   Legal Procedures   3
An examination of the judicial process and its relationship to the Rules of Criminal Procedures. The course focuses on the federal and state constitutions, the Civil Rights Act, Civil torts, rules of evidence, Act 141 (Municipal Police Officers Jurisdiction Act). Procedures for service of search and arrest warrants, interrogation of defendants, and prosecution of cases are also included in the course. Prerequisites: COM 051; COM 061. (Spring)

LAW 180   Crisis Intervention Strategies   3
This course will provide a basic understanding of the characteristics of a crisis situation and the typical individual responseto crisis. Additionally, models of crisis intervention will be presented. Emphasis will be placed on the six-step model of crisis intervention, assessing the crisis situation, employing crisis strategies, approaching specific crisis situations and determining lethality. Prerequisites: COM 051; COM 061 (TBA)

LAW 185   Criminology   3
Introduces historical and criminological theories with emphasis on the criminal justice system and its role in crime prevention. Prerequisites: COM 051; COM 061. (TBA)

LAW 210   Law Enforcement Management I   3
This course is designed to prepare the student to be an administrator of a law enforcement agency by providing basic skills in planning, evaluation and revision of goals, budgets, programs, policies and procedures, and the acquisition and allocation of human and material resources. Prerequisites: COM 121; LAW 135. (Fall)

LAW 230   Interviewing & Interrogation Skills   3
Methods used in interviewing witnesses and victims, interrogating suspects in order to obtain valid confessions. The focus is on establishing rapport, perceiving body language and obvious attempts at deception, use of the polygraph, and techniques for verbally disarming the interviewee. Prerequisites: LAW 150; COM 121. (Fall)

LAW 250   Criminal Investigation   3
This course is a thorough overview of the criminal investigation process as it coincides with law enforcement procedures. Evaluation and use of investigation processes will be covered. Prerequisites: LAW 150; COM 121. (Winter)

LAW 255   Law Enforcement & Community Relations   3
The course will include a general overview of the Criminal Justice System, the responsibilities of each component of the system and the interaction among various agencies. Public community skills are an integral part of police work. The course is designed to help students develop skills to build rapport within the community including researching, planning, scheduling, and presenting programs of public interest as well as developing and maintaining good relations with representatives of schools, social agencies, the news media, and the community at large. Prerequisite: COM 121. (Spring)

LAW 270   Organized Crime in America   3
This course is an in-depth study of organized criminal activity; its history, social, economic, and political impact upon American society, focusing on traditional organized crime, new emerging racial and ethnic groups, and modern law enforcement procedures and judicial prosecutions. Prerequisites: COM 121; LAW 150. (TBA)

LAW 280   Law Enforcement Management II   3
This course focuses on management skills needed by the law enforcement administrator in the performance of both day-to-day and long-term activities. Topics include delegation, decision-making, problem solving, disciplinary procedures and commendations, response to community needs, supervision of law enforcement activities, evaluation of police reports, allocation of manpower, schedule preparation, and acquisition of equipment. Prerequisite: LAW 210. (Spring)

LAW 285   Juvenile & Domestic Law   3
This course will provide a knowledge of laws pertaining to juvenile and family-related crimes and offenses. Specific topics will include Juvenile Law, Domestic Violence Act, Protection from Abuse Act, and Child Protective Services Act. Prerequisite: COM 121; LAW 150. (Spring)

LAW 290   Cooperative Education I   (All)   Varies
Prerequisite: 27 credits earned in student's curriculum with a 2.0 QPA.

All = Fall, Winter, Spring

LAW 291 Cooperative Education II (All) **Varies**
Prerequisite: 27 credits earned in student's curriculum with a 2.0 QPA.

LAW 299 Seminar (TBA) **Varies**

MACHINE TOOL TECHNOLOGY
Credit Hours

MTT 120 Machine Tool Mathematics I 3
This course is designed to provide the mechanist/tool and die maker with the information and computational skills commensurate to attaining competence in solving applied problems involving arithmetic, fractions, decimals, powers, roots, English and Metric units, tolerance, clearance, interference, fundamental principles of algebra, cutting speed and application of formulas. Prerequisite: Appropriate Score on MTT placement tests Battery. (Winter)

MTT 125 Machine Tool Mathematics II 3
This mathematics course is designed to provide the student with the information and computational skills commensurate to attaining competence in solving applied problems involving fundamentals of place geometry and trigonometry. Prerequisite: MTT 120. (Spring)

MTT 131 Engineering Graphics I & Blueprint Reading 3
As an introduction to mechanical drafting and sketching, this course is designed to provide the machinist apprentice and others working in the industry with a basic understanding of the "language of industry" called graphics. The student will learn and apply the fundamental principles of mechanical drafting and sketching to graphically describe machine parts. A major goal of the course is to provide the student with the knowledge to be able to completely and accurately describe machine parts by making and using working drawings. Individual instruction is provided along with lecture presentations and hand out materials. The basic principles of reading and interpretation of industrial drawings will be presented. Emphasis is placed on the skills that are needed to understand the drawings and relate them to the machine trades. The course will include these major topics: lines and symbols; orthographic projection; one, two, and three view drawings; auxiliary views; dimensions and tolerances; sectioning and thread representation. Prerequisite: MTT 120. (TBA)

MTT 135 Blueprint Reading II 3
This is the second course of the blueprint reading sequence which is designed to provide the student with the skills required to interpret intermediate to difficult machine drawings. Emphasis will be placed on stimulating the student's creativity while encouraging adoption of proven techniques and analytical procedures. These procedures are designed to enhance problem solving skills and to permit greater ease in gathering graphical information critical to visualizing an object. Prerequisite: MTT 131. (Winter)

MTT 140 Blueprint Reading III 3
This advanced blueprint reading course is designed to provide the student with the skills required to interpret complex machine tool industrial drawings. These drawings include: assemble, special feature, multi-scale and relatively complex die, mold and cast part drawings. Prerequisite: MTT 135. (Spring)

MTT 151 Introduction to Metalworking 3 (Lab)
This course is designed to provide the machinist/tool and die maker student with an introduction to the machining industry. Theoretical and practical aspects of shop safety, hand tool usage, precision layout, use of precision measuring instruments accurately, use of taps and dies, files, reamers, and identification and use of the appropriate materials. Students are prepared to take the National Institute of Metalworking Skills (NIMS) level I certification in layout and benchwork. Prerequisites: MTT 131, MTT 120, and MTT 165 (TBA)

MTT 152 Basic Power Tools 2(Lab)
This course is designed to provide the student with knowledge and practical learning experience and accident prevention awareness required to perform various tasks using basic power tools such as: drill presses, power saws, pedestal grinders, and hand power tools. Students are prepared to take the National Institute of Metalworking Skills (NIMS) level I certification in drilling. Prerequisite: MTT 151. (TBA)

MTT 156 Turning Technology 3(Lab)
This course is designed to provide the student with knowledge and practical learning experience and accident prevention awareness required to perform basic conventional lathe job planning, set-up and operation. Aspects of conventional, as well as carbide and other tooling materials selection, preparation, and usage will be covered. Students are prepared to take the National Institute of Metalworking Skills (NIMS) level I & level II certification in turning between centers and chucking. Prerequisite: MTT 151. (TBA)

MTT 165 Machine Theory I 3
This course is designed to provide the student with an introduction to the machine tool industry. Theoretical aspects of shop safety, hand tool usage, precision measurement, materials, precision layout and machining preparations are addressed in this course. (Varies)

MTT 170 Machine Theory II 3
This course is the second course in machine tool theory. In this course, the following machine tools and their proper operations are addressed: sawing machines, drilling machines. Prerequisites: MTT 165. (Varies)

MTT 201 EDM Theory-Conventional & Wire 3
This course is the third of three courses in machine tool theory. In this course, the theories involved in unconventional machining practices will be discussed. Primarily focused on EDM machining, the student will gain an understanding of how these technologies work and their place in industry. Prerequisite: MTT 125. (TBA)

MTT 211 Milling Technology 3(Lab)
This course is designed to provide the student with knowledge and skills necessary to identify and safely use the various milling cutters and other tools that are adaptable to milling machines, and set-up work pieces to be properly machined using vertical and horizontal milling machines. This course covers the names of the vertical and horizontal milling machine parts and controls, the function of each part and control so that the students can operate the machiens safely and with a high degree of accuracy. Students are prepared to take the National Institute of Metalworking Skills (NIMS) level I certification in milling. Prerequisite: MTT 151. (TBA)

MTT 221 Grinding Technology 3(Lab)
This course is designed to provide the student with learning experiences in theoretical and practical skills development in precision grinding operations. The student will use a variety of surface and form grinders, applying various techniques to make metal parts to blueprint specifications. Students are prepared to take the National Institute of Metalworking Skills (NIMS) level I certification in grinding. Prerequisite: MTT 151. (Winter)

All = Fall, Winter, Spring

MTT 240   Metrology   3
This course is designed to provide the student with an experience in the use of precision instruments for measurement and inspection of manufactured parts. The course includes the use of comparators, micrometers, surface plates and accessories, microscopes, hardness testing instruments, and other related equipment. Students gather and analyze quality assurance data and inspect parts using non-destructive testing techniques (NDT). Students are prepared to take the National Institute of Metalworking Skills (NIMS) level I certification in measurement, materials, and safety. Prerequisites: MTT 125, MTT 140, MTT 211, MTT 156, and MTT 221.   (TBA)

MTT 261   Basic CNC Programming, Milling &
**   Turning Theory   3**
The purpose of this course is to make the student aware of the history and evolution of the CNC machine starting with the simple NC units. This knowledge will enable the student to understand how the modern machines operate while appreciating the advantages afforded by CNC. The course stresses safe operation as well as basic languages and formats used in programming. Students will learn all of the various functions of the control units as well as how to write and apply simple programs. Milling and Turning theory are also addressed in order to provide the student with a working knowledge of all facets of CNC machining processes. Prerequisite: MTT 125.
                                                                (TBA)

MTT 265   CNC Fixture Design   2(Lab)
This course covers the design and function of various jigs and fixtures used for the production of consistent tools. Different design features and methods will be discussed. Particular attention will be given to the proper design and construction of fixtures. Prerequisites: EGR 106, MTT 125.   (Varies)

MTT 271   Advanced CNC Milling   3(Lab)
This course will provide the student with the necessary skills to safely program, set up, operate and maintain CNC milling centers. This course will include manual part programming and practical operation for Computer Numerical Control (CNC) milling machines. Trigonometry, blueprint reading, drafting and basic machining skills will be practiced extensively. Students are prepared to take the National Institute of Metalworking Skills (NIMS) level II certification in CNC Mill Operation. Prerequisites: MTT 261.   (TBA)

MTT 276   Advanced CNC Turning   3(Lab)
This course is designed to teach the student manual part programming for Computerized Numerical Control (CNC) lathe and turning applications. Included in this course is the practical operation of the CNC turning center. It is designed for students who plan to enter the machining industry or need to update their skills in Computerized Machining. Students are prepared to take the National Institute of Metalworking Skills (NIMS) level II certification in CNC Lathe Operation. Prerequisites: MTT 261.   (TBA)

MTT 281   Mastercam Programming Levels I & II   2(Lab)
This course is the first of two courses in Mastercam Programming. This course will provide the student learning experiences in computer aided programming with Mastercam software. The course will include system hardware, Windows applications, and mill and lathe part manufacture. The beginning student will use the software to create 2D-part design and contour toolpaths for milling and turning parts. Prerequisite: MTT 261.   (TBA)

MTT 286   Mastercam Programming Level III   2(Lab)
This course is the second course in Mastercam programming. This course will provide the student learning additional experiences in computer assisted CNC Programming with Mastercam software. This course will include advanced 2D and 3D part construction and code generation. The student will use the skills gained from Mastercam Programming Levels I & II to construct more difficult parts. The course also includes code generation, machine file & template file manipulation, code generation testing and verification. Prerequisite: MTT 281.
                                                                (TBA)

MTT 287   Conventional EDM Machining   2(Lab)
This course is designed to provide studens with an introduction to plunge electrical discharge machining. By developing programs and using various setup techniques, students will gain an understanding of the capabilities and limits of plunge EDM's. The course stresses safe operation, as well as, efficient job planning. Students will learn various functions of the control unit, as well as, how to write and apply simple programs. Students are prepared to take the National Institute of Metalworking Skills (NIMS) level II certification for (5 Axis) wire EDM operations.   (TBA)

MTT 288   Wire EDM Machining   2(Lab)
This course is designed to provide the machinist/tool and die maker with the information necessary to safely set-up, maintain and operate a wire EDM machine. This course will include CAM Programming of parts from blueprints followed by sending the program through a post processor via a DNC Network to the Wire EDM machine. This course will also include Manual Data Input (MDI) for simple wire programs and program editing. Students are prepared to take the National Institute of Metalworking Skills (NIMS) level II certification for (5 Axis) wire EDM operations.   (TBA)

MTT 290	**Cooperative Education I**	(All)	**Varies**
MTT 291	**Cooperative Education II**	(All)	**Varies**
MTT 299	**Seminar**	(TBA)	**Varies**

MANAGEMENT   Credit Hours

MGT 100   Principles of Management   3
Introduction to the major functions of management - planning, organizing, staffing, directing, and controlling. Emphasis is also given to the related topics of interpersonal relationships, organizational behavior, cooperation, decision making, problem solving, and corporate social responsibility. If the student's curriculum includes BUS 100, we recommend that it be taken prior to MGT 100. Prerequisites: COM 051, COM 061.
                                              (Winter/Spring)
MGT 140   Administrative Office Management   3
An introduction to recent advances in administrative services and information processing as they relate to the administrative office manager. Emphasis will be placed on administrative systems analysis; office layout, environment and furniture; automated equipment capability; records management and forms control; budgetary and cost control; personnel selection and develop-ment; and effective administrative managerial techniques. Prerequisite: COM 061; Strongly recommended: BUS 106.   (Winter)

MGT 200   Human Resources Management   3
Introduction to the development of a well-balanced human resources program for organizations, based on the fact that all managers have personnel-related duties and human resources are the key to organizational success. Topics include recruitment, selection, training, compensation, benefits, motivation, per-formance appraisal, legal issues, and union-management relations. Prerequisite: MGT 100, COM 121.(Fall)

MGT 210   Supervisory Management   3
Refines the skills needed for the day-to-day activities of a first-line supervisor. Applies the principles of delegating, planning, organizing, motivating, leading, staffing, training, compensating, and appraising. The student will be actively involved in dealing with the challenges faced by this critical member of the management team. Prerequisite: MGT 100, COM 121. Strongly recommended: MGT 200.   (Winter)

MGT 220   Retail Management   3
A study of retailing with emphasis upon modern technical developments, new management methods, and new tools that are being utilized by retail management. Prerequisite: MGT 100, COM 121.   (Spring)

MGT 230   Small Business Management   3
A capstone to your management studies, this course focuses on the development of your entrepreneurial skills. It is a survey of the opportunities and difficulties faced by individuals who wish to own and/or operate a small business. Topics include entrepreneurship, forms of ownership, franchises, planning, financing, location, profitability, legal issues, taxation, human resources management, and marketing. Students will develop a business plan using spreadsheet software on a microcomputer. Prerequisites: IFT 110; MGT 100.   (Spring)

MGT 240   Compensation Management   3
This course explains the origins of wages and salaries, the framework of the administrator, the fundamentals of job descriptions, evaluation and analysis of job performance, compensation methods and wage incentive structures, merit rating, managerial compensation, and wage and salary administrative controls. Prerequisites: MAT 150 and MGT 100.
Winter

MGT 250   Operations Management I   3
This course provides the student with instruction in basic system design, functions and principles of planning, forecasting techniques, work authorization, management control, statistical control, development of loading and scheduling systems, dispatching, progress reporting on work accomplishment, control analysis, methods and time study, and qualitative and quantative evaluation. Prerequisites: MAT 150 and MGT 100.
Fall

MGT 255   Operations Management II   3
This course provides the student with instruction in basic principles and methods regarding total quality, total quality management, and total quality and organizational theory, organizational behavior, and strategic management. Prerequisite: MGT 250.   Winter

MGT 260   Facilities Planning and Design   3
This course examines the basic factors which influence the planning of new and existing manufacturing and service facilities. Students will learn how to use analytical models and fact-based decision making while determining requirements for all people, equipment, space, and material handling in the facility. Prerequisites: MAT 150 and MGT 100.   Spring

MGT 290   Cooperative Education I   (All)   **Varies**

MGT 291   Cooperative Education II   (All)   **Varies**

MGT 299   Seminar   (TBA)   **Varies**

MATHEMATICS   Credit Hours

MAT 010   Math Skills Review   0
Math Skills Review is a self-paced course. It is a review of arithmetic concepts. The content includes whole numbers, fractions, decimals, ratio and proportion, and percents. Prerequisites: COM 009, or placement by assessment.   (All)

MAT 015   Math Fundamentals   4
Math Fundamentals is a self-paced course. It is a review of arithmetic and algebraic concepts. The content includes whole numbers, fractions, decimals, ratio and proportion, percents, statistics, U.S. Customary Units of Measurement, metric system of measurement, rational numbers, introduction to algebra, and geometry. **MAT 015 Math Fundamentals and MAT 020 Basics of College Math are equivalent courses and contain the same course content.** Prerequisites: COM 021 (may be taken concurrently) or placement by assessment.   (All)

MAT 020   Basics of College Mathematics   3
This course is a review of arithmetic and algebraic concepts. The course includes whole numbers, introduction to algebra, solving equations, fractions, decimals, ratio and proportion, introduction to graphing, and percent. **MAT 015 Math Fundamentals and MAT 020 Basics of College Math are equivalent courses and contain the same course content.** Prerequisite: MAT 010; COM 021 (may be taken concurrently) or placement by assessment.   (All/Summer)

MAT 025   Algebra Fundamentals   4
This course includes a review of real numbers and the order of operations. The focus of the course is on algebraic topics: exponents, polynomials, linear equations and inequalities, applications of linear equations, graphing linear equations and inequalities, radicals, factoring, rational expressions, systems of linear equations, and quadratic equations. **MAT 025 Algebra Fundamentals and MAT 030 Algebra I are equivalent courses and contain the same course content.** Prerequisites: MAT 015 or MAT 020; COM 061 (may be taken concurrently).   (Winter/Spring)

MAT 030   Algebra I   3
This course includes a review of real numbers and the order of operations. The focus of the course is on algebraic topics: exponents, polynomials, linear equations, applications of linear equations, graphing linear equations and inequalities, radicals, factoring, rational expressions, systems of linear equations, and quadratic equations. **MAT 025 Algebra Fundamentals and MAT 030 Algebra I are equivalent courses and contain the same course content.** Prerequisite: MAT 015 or MAT 020; COM 061 or placement by assessment.   (All/Summer)

MAT 110   Algebra II   3
This course reinforces polynomials, rational expressions, first-degree equations and inequalities (including absolute values), exponents, radicals, and complex numbers. An emphasis will be placed on the following topics: second-degree equations and inequalities, graphing involving two variables, systems of equations, relations and functions, and exponential/logarithmic functions. Prerequisite: MAT 030 with a "C" or betteror placement by assessment.   (All/Summer)

MAT 150   Foundations of Mathematics   3
This course places as much emphasis on the modern mathematical ideas and their meaning as on computation; includes systems of numeration, finite mathematical systems, set theory, logic, an introduction to probability, counting theory, statistics, and some additional topics in geometry. Prerequisites: MAT 030.   (All/Summer)

All = Fall, Winter, Spring

MAT 155   Foundations of Mathematics II   3
This course places emphasis on problem solving and application of mathematical concepts as well as on computation. Topics covered include number theory, number representations and calculations, patterns and algebraic thinking, graphs and functions, graph theory and motion geometry. Prerequisites: MAT 150.   (Spring)

MAT 160   College Algebra   3
Topics covered include: review of quadratic and higher degree equations and inequalities; properties of functions and graphs including algebraic, polynomial, rational, exponential and logarithmic functions; systems of equations and inequalities with an introduction to matrices, determinants; elementary concepts of analytic geometry. Prerequisite: MAT 110 with a "C" or better or placement by assessment.   (All)

MAT 165   Trigonometry   3
This course includes right triangle and oblique triangle trigonometry, trigonometric functions of real numbers, identities, equations and graphs of the trigonometric functions, inverse functions, logarithms, and vectors. Prerequisite: MAT 160 or placement by assessment.   (All)

MAT 180   Precalculus   3
An overview of algebraic and trigonometric principles. Emphasis is placed on functions in both disciplines. The theory of mathematics is stressed and the concept of the limit is presented. Topics covered include: functions, polynomials, exponentials, logarithms, theory of equations, inequalities, partial fractions, trigonometry, analytic geometry, and binomial theorem. Prerequisite: MAT 165 or placement by assessment.
(Winter/Spring)

MAT 210   Statistics   3
An introduction to statistical concepts including: understanding of an ability to use graphs, frequency distributions, measures of central tendency and dispersion, probability, various distributions and their properties, testing hypotheses, approximation and Chi-square tests, regression and correlation. Prerequisite: MAT 030.   (Fall/Spring)

MAT 220   Calculus I   4
An overview view of calculus, introducing the concepts of function notation, tangent; the derivative; derivative of polynomials; the chain rule, derivatives of powers; products; quotients; implicit functions; higher derivatives; the antiderivatives and applications; analytic geometry; graph sketching; and derivatives of trigonometric functions. Prerequisite: MAT 180 or placement by assessment.   (Fall)

MAT 221   Calculus II   4
Topics covered include transcendental functions, derivatives of inverse trigonometric functions, techniques of integration, applications of definite integrals, improper integrals, simple differential equations and infinite series. Prerequisite: MAT 220.   (Winter)

MAT 222   Calculus III   4
Continuation of Calculus II. This course will use all the elements of elementary calculus beginning with sequence and series including Maclaurin and Taylor series. The course will also cover more advanced applications using partial derivatives and multiple integrals. An introduction to vector calculus and simple differential equations will be covered. Prerequisite: MAT 221.   (Spring)

MAT 299   Seminar   (TBA)   varies

MEDICAL LABORATORY TECHNOLOGY   Credit Hours

MLT 120   Basic Immunology   2(Lab)
For the clinical laboratory student, this course will introduce the fundamental principles of immunology. Topics to be covered are: the immune response, antigen-antibody reactions, the antibody response, the lymphoid system, genetic control of immunity, hypersensitivity, and applied clinical immunological procedures. Prerequisites: COM 061; high school biology and chemistry within the past 5 years or BIO 150 and CHE 120.
(Winter)

MLT 210   Clinical Laboratory Techniques   3(Lab)
The purpose of this course is to prepare medical laboratory technician students for transition to clinical experiences in the fifth and sixth terms of the program. In this course, basic knowledge and dexterity for routine laboratory tests in the various hospital laboratory departments will be stressed. The course will especially stress hematology, coagulation, and clinical chemistry. Prerequisite: MLT 120.   (Fall)

MLT 220   Clinical Hematology   4(Lab)
Within this clinical laboratory-based course, the student will be actively engaged in rotations and lectures in hematology. Emphasis will be placed on all the hematologic cell series, anemias, leukemias, and other blood dyscrasias. Hematology clinical laboratory procedures will be more fully covered to allow the student to function in a clinical hematology laboratory on an entry level of proficiency. Prerequisite: MLT 210. Corequisite: MLT 221, MLT 222, MLT 230, MLT 231, MLT 232, MLT 233.
(Winter)

MLT 221   Clinical Chemistry   4(Lab)
Within this clinical laboratory-based course, the student will be actively engaged in rotations and lectures in clinical chemistry. All routine chemistry testing will be stressed. Automation will be covered with each test where it applies. Prerequisites: MLT 210. Corequisites: MLT 220, MLT 222, MLT 230, MLT 231, MLT 232, MLT 233.   (Winter)

MLT 222   Clinical Urinalysis   1(Lab)
Within this clinical laboratory-based course, the student will be actively engaged in rotations and lectures in urinalysis. The structure and function of the kidney will be covered in detail. Urinalysis chemical and physical laboratory testing will be stressed. The student will also be exposed to test correlation as to pathological kidney states. Prerequisite: MLT 210. Corequisites: MLT 220, MLT 221, MLT 230, MLT 231, MLT 232, MLT 233.   (Winter)

MLT 230   Clinical Blood Banking & Immunology   4(Lab)
Within this clinical laboratory-based course, the student will be actively engaged in rotations and lectures in blood banking. Emphasis will be placed on the blood groups and identifying atypical antibodies as pertaining to blood transfusions. Prerequisite: MLT 210. Corequisites: MLT 220, MLT 221, MLT 222, MLT 231, MLT 232, MLT 233.   (Spring)

MLT 231   Clinical Microbiology   4(Lab)
Within this clinical laboratory-based course, the student will be actively engaged in rotations and lectures in clinical microbiology, including parasitology. Emphasis will be placed on microbial organism identification. Prerequisite: MLT 210. Corequisites: MLT 220, MLT 221, MLT 222, MLT 230, MLT 232, MLT 233.   (Spring)

All = Fall, Winter, Spring

MLT 232   Clinical Coagulation   1(Lab)
Within this clinical laboratory-based course, the student will be actively engaged in rotations and lectures in clinical coagulation. The basis of hemostasis will be stressed. Testing for factor deficiencies will be covered in detail. Pathological factor deficiencies will also be covered. Prerequisite: MLT 210. Corequisites: MLT 220, MLT 221, MLT 222, MLT 230, MLT 232, MLT 233.   (Spring)

MLT 233   Clinical Serology   1(Lab)
Within this clinical laboratory-based course, the student will be actively engaged in rotations and lectures in serology. The principles and correlations of serological procedures will be stressed. Emphasis will be placed on syphilis testing, pregnancy testing, febrile agglutination, infectious mononucleosis serology testing and enzyme immunossay techniques. Prerequisite: MLT 210. Corequisites: MLT 220, MLT 221, MLT 222, MLT 230, MLT 232, MLT 233.   (Spring)

MLT 290	**Cooperative Education I**	(All)	**Varies**
MLT 291	**Cooperative Education II**	(All)	**Varies**
MLT 299	**Seminar**	(TBA)	**Varies**

NANOSCIENCE   Credit Hours

NSC 200   Nanofabrication Seminar   1
This is an orientation course for all students considering the Nanoscience technology emphasis in Laboratory Science and the capstone semester at the Nanofabrication Laboratory at Penn State University. The primary aim of this course is to prepare students for the rigors of this very intense training sequence. An introduction.orientation to the program educational requirements and details of career opportunities as technicians/technologists within the rapidly expanding field of nanofabrication will be covered. Associated topics will be researched. Prerequisites: ELT 100, MAT 165, MAT 210, COM 121, COM 141, IFT 110, BIO 150, CHE 150, PHY 150 or a faculty recommendation. Co-requisite: ELT 200.

**NSC 211   Materials, Safety & Equipment Overview
              for Nanofabrication   3(Lab)**
This course provides 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: cleanrooms operation, safety and health issues; vacuum pump systems operation, environmental safety, and health issues (covering direct drive mechanical roots blowers, turbomolecular, 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 controllers); and vacuum deposition/etching system operation, safety, environmental, 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, cleaners, ion implantation sources, diffusion sources, photoresists, developers, metals, dielectrics, and toxic, flammable, corrosive and high purity gases as well as packaging materials. Prerequisites: BIO 150, CHE 150, COM 121, COM 141, ELT 100, ELT 200, ITF 110, MAT 165, MAT 210 and NSC 200.

NSC 212   Basic Nanofabrication Process   3(Lab)
This course provides 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 structors. Students will learn the similarities and differences in both equipment and process flow for each configuration by undertaking "hands-on" processing. Prerequisite: NSC 211.

NSC 213   Thin Films in Nanofabrication   3(Lab)
This course covers thin film deposition and etching practices in Nanofabrication. The deposition techniques to be included in the first past of the course will include atmosphere, 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 microelectronics, MEMs devices, display structures, and structures used in the biotechnology fields. Prerequisite: NSC 212.

NSC 214   Lithography for Nanofabrication 3(Lab)
This course covers 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 dithographic techniques such as phase shifting masks and illumination schemes as well as e-beam, e-ray, EUV, and ion beam lithography. Prerequisite: NSC 213.

**NSC 215   Materials Modification
              in Nanofabrication   3(Lab)**
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 on 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. Prerequisite: NSC 214.

**NSC 216   Characterization, Packaging and Testing
              of Nanofabricated Structures   3(Lab)**
This course examines 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: surface

profilometry, advanced optical microscopy, optical thin film measurements on device structures for 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 nanostructures for biological/biomedical applications. The students will perform DNA analysis by learning and performing the polymer chain reaction for DNA replication. They will also study and manufacture microfluidic channels for biological analysis. An extensive overview of biology will be given with emphasis on biocompatible materials. 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. Prerequisites: NSC 215.

NETWORKING   Credit Hours

NET 100   Fundamentals of Networking   3
This course will introduce students to basic networking concepts and terminology of networking computing, including LANs and WANs. An introduction to data communications will also be addressed. Students will gain an understanding of hardware, software, cabling, and topologies common in networking. Prerequisite: IFT 100.   (Winter)

NET 105   Installation & Maintenance
**   of PC Operating Systems   3**
This course will give the student hands-on experience with all major personal computer operating systems. The student will learn to ue the desktop and interface components for all versions of Windows workstation operating systems, Linux, and Mac OS. The student will also install, configure, optimize and troubleshoot these operating systems. Installation of hardware drivers, using utilities to support hard dribes, and connecting to networks and the Internet will also be addressed. Because service techniciansfind that being well-versed in technical aspects is not enough in today's job market, this c ourse will also address other responsibilities of PC technicians. After completion of the course, the student will be prepared for CompTIA's A+Operating System Technologies certification exam. Prerequisite: IFT 100 and IFT 110.   (Winter)

NET 110   Network Administration (NetWare)   3
This course is designed to provide students with the necessary knowledge and skills to perform competently in the role of network administrator on a Novell network. Students completing this course will be able to accomplish fundamental network management tasks of a NetWare network. In the course students will compare and contrast various methods for installing NetWare on file servers and will practice for performing a simple installation of NetWare. The student will install Novell's latest client as well as create login scripts. NDS objectives and configure server services and resources. Coursework will prepare students to sit for various NetWare NT or A+ certification exams. Prerequisites: NET 100, NET 105, COM 121.   (Spring)

NET 120   Server Administration (Windows)   3
This course will provide the student with the knowledge and skills necessary to perform Windows server pre- and post-installation, along with the skills necessary to perform day to day maintenance on Windows server. At the completion of the course, the student should be able to create and administer user and group accounts. troubleshoot login problems, setup and administer permissions for files and folders, set and administer printers and administer the Windows server and workstations OS in real world situation. The student should be prepared after completion of the class with additional study to take the Windows Server MCSE exam. Prerequisite: NET 100, NET 105, COM 121.   (Fall)

NET 125   Installation and Maintenance
**   of PC Hardware   3**
This course will give the student hands-on experience with every component of the personal computer. The student will install such devices as hard drives, memory, CPU chips, printers, expansion boards, storage devices, network interface cards, modemsand mutlimedia devices. In addition, the student will learn to diagnose, troubleshoot and repair hardware devices. Because service technicians find that being well-versed in technical aspects in not enough in today's job market, this course will also address other responsibilities of PC technicians. After completion of the course, the student will be prepared for a CompTIA's A+ Core Hardware certification exam. Prerequisite: IFT 100, IFT 110.   (Spring)

NET 200   Network Technologies & Troubleshooting   3
This course will provide the foundation for both concepts and terminology of communications and networking needed to pursue advanced data communication courses or advanced networking courses. Projects will be provided to help students solidify and apply their knowledge. Prerequisite: NET 110, NET 120.   (Winter)

NET 220   Advanced Server Administration (Windows)   3
This course will enhance the students' network management and monitoring skills by giving them a more in-depth understanding of network administration responsibilities including the use of advanced administration skills. Students will learn tools to measure system performance. They will also learn how to configure a Windows server to work in a mixed platform with a NetWare server. Network security and troubleshooting will also be addressed. Prerequisite: NET 120.   (Winter)

NET 230   TCP/IP   3
This course is intended as a starting point to help broaden the students' understanding of internetworking and (TCP/IP). It is designed to give the student a reasonable working knowledge of TCP/IP architecture, subnetting, addressing, and routing. Prerequisite: NET 200.   (Spring)

NET 240   Designing Systems for
**   Client/Server Architecture   3**
This course will provide an introduction to client/server design architecture. It will teach the student to evaluate the benefits of client/server computer vs. traditional data processing, to adapt software design approaches to client server model, and to management and control client/server application development projects. This course will also provide a comprehensive, platform neutral introduction to client/server computing. The student will be introduced to client/serve development, from the architecture and application design to system performance issues and project support. This class will examine what organizations are doing today to provide more flexible environments and reduce present and future integration problems. Prerequisite: NET 200.   (Spring)

All = Fall, Winter, Spring

NURSING
Credit Hours

NUR 111   Transition to Nursing   2
This course enables licensed practical nurses and others who meet the criteria for advanced placement to enter the Nursing Program with advanced standing. Concepts explored include: professional nursing and nursing roles, nursing process, organizing assessment data using functional health patterns, communication, client and life dimensions. Emphasis is placed on beginning skills in therapeutic communication techniques, and on the role change from LPN to RN. Prerequisites: All courses stated in the Selective Admissions Procedures in the current Reading Area Community College Student Catalog, COM 061: Advanced Reading (or appropriate score on placement tests), current CPR certification for the Professional Rescuer or Healthcare Provider, 2.5 or better GPA for Reading Area Community College work, and special permission of the Nursing Program Admissions Committee.

NUR 115   R Nursing Seminar   1
This course is designed to assist students to be successful when re-entering nursing courses NUR 130 Nursing II or NUR 140 Nursing III. The focus is on theoretical content, laboratory and clinical skills. In addition the student will examine issues which are critical to their success. Prerequisite: Special permission from the AD Nursing Program Admissions committee.
(Summer)

NUR 116   R Nursing Seminar   2
This course is designed to assist students to be successful when re-entering nursing courses NUR 220 Nursing IV, NUR 230 NURSING V, or NUR 240 Nursing VI. The focus is on theoretical content, laboratory and clinical skills. In addition the student will examine issues which are critical to their success. Prerequisite: Special permission from the AD Nursing Program Admissions committee. (Summer)

NUR 120   Nursing I   5(Lab)
This course introduces foundational nursing concepts including: professional nursing and nursing roles, nursing process, communication, client and life processes, healthy function dysfunction, and potential dysfunction, and clinical nursing therapeutics. Emphasis is placed on developing beginning skills in communication, nursing assessment and fundamental nursing skills in the campus laboratory. Clinical experience introduces the student to nursing practice with adult clients in long term care facilities. Prerequisites: All courses stated in Selective Admissions Procedures, page 15; COM 061; current C.P.R. certification for professionals. [Fee] (Fall)

NUR 130   Nursing II   5(Lab)
Basic nursing concepts introduced in Nursing I are further developed. The nursing student will perform selected nursing techniques and develop skills in identifying and utilizing communication techniques that facilitate communication with clients. The focus of theory shifts from use of the nursing process to meet basic needs to managing the care of clients (adults and children) who require surgical or medical intervention for selected pathophysiological conditions: gastrointestinal, sensory and integumentary. During this course, clinical experiences are provided in the acute care and community-based settings. Prerequisites: BIO 250 (within last 7 years); COM 121; NUR 120; all prerequisites require a grade of "C" or higher; current C.P.R. certification for professionals.
[Fee] (Winter)

NUR 140   Nursing III   6(Lab)
The concept of wellness is continued with an emphasis on maternal-child nursing theory. This includes uncomplicated pregnancy, labor, delivery, postpartum and newborn nursing care. The developmental changes of the client and the family are introduced. The nursing process is applied to the care of clients of any age with selected pathophysiologic conditions: reproductive, urinary, endocrine, and cardioperipheral-vascular. Concurrent clinical experience is in acute care and community-based settings. Prerequisite: BIO 255 (within last 7 years); NUR 130; all prerequisites require a grade of "C" or higher; current C.P.R. certification for professionals. [Fee] (Spring)

NUR 220   Nursing IV   6(Lab)
The focus of this course is on application of the nursing process to chronically ill clients of any age with selected pathophysiologic conditions: musculoskeletal, respiratory and hematologic, and with mental illness. More complex nursing skills are developed in the medical-surgical and rehabilitation areas. Concurrent clinical experience is in acute care, rehabilitation, and psychiatric care settings. Prerequisites: BIO 280 or CHE 150; NUR 140; all prerequisites require a grade of "C" or higher; current C.P.R. certification for professionals.
[Fee] (Fall)

NUR 230   Nursing V   6(Lab)
Acute, critically ill client care situations are taught. Content and practice are based on knowledge and skills acquired in all previous nursing courses. These skills are applied in rapidly changing situations requiring swift nursing action. Students use critical thinking, communications, and nursing skills to maintain a professional and caring environment for critically ill clients of all ages. Concurrent clinical experience is in acute care settings in critical care, coronary care, emergency room and obstetrics. Prerequisites: NUR 220 (with a "C" or higher); current C.P.R. certification for professionals. [Fee] (Winter)

NUR 240   Nursing VI   9(Lab)
The student is prepared for role transition to graduate nurse through expanded clinical experience in varied health care settings. Integration of theory and clinical skills allow for organization of care for a group of clients using the nursing process. Concepts, trends, and professional practice issues which affect health care delivery are analyzed. Prerequisites: NUR 230 (with a "C" or higher); current C.P.R. certification for professionals. [Fee] (Spring)

NUR 290   Cooperative Education I   (All)   Varies

NUR 291   Cooperative Education II   (All)   Varies

OFFICE TECHNOLOGY
Credit Hours

OFT 100   Personal Keyboarding   3
Designed to teach keyboarding skills to students who are not office technology majors. This course is for students with no keyboarding background or for students who wish to brush up on previous skills. Emphasizes keyboarding skills and techniques and basic keyboarding applications such as business letters, tables, memos and reports. Personal Keyboarding cannot be substituted for OFT 110. Prerequisite: COM 021. (All)

OFT 110   Keyboarding I   3
Designed for students with no keyboarding background or for students who wish to brush up on previous skills. Emphasizes keyboarding skills and techniques and basic keyboarding applications such as business letters, tables, memos and reports. Prerequisite: COM 021 (or concurrent enrollment). For Office Technology Students ONLY. (Fall)

OFT 111   Keyboarding II   3
Emphasis on increasing speed and accuracy. Includes advanced problems in business letters, tables with special features, reports, memorandums, and integrated office projects in a wide variety of fields. Prerequisite: OFT 110 (recommended keyboarding speed of at least 35 wpm). (Winter)

All = Fall, Winter, Spring

OFT 112   Keyboarding III   3
Includes integrated and specialized keyboarding projects for the executive, legal, medical and word processing fields including instruction on the advanced features of Microsoft Word. Prerequisite: OFT 111 (or recommended keyboarding speed of at least 45 wpm).   (Spring)

OFT 120   Machine Dictation & Transcription   3
Designed to familiarize the student with the important role of the originator and the transcriptionist in the preparation of office communications and to provide experience in developing effective machine dictation and transcription techniques. Emphasis will be placed on business English skills, dictation and transcription of mailable copy, and appropriate application of secretarial reference manuals. Prerequisites: BUS 105; OFT 111. Strongly recommended: BUS 106 or concurrent enrollment.
                                            (Spring)

OFT 210   Speedwriting I   3
An introduction to the principles and theory of Speedwriting. Emphasis will be placed on the mastery of brief forms, development of phrasing, and reading and writing of material. Dictation is given on familiar materials, and transcription techniques are introduced. Prerequisite: OFT 110 or previous keyboarding experience.   (Winter)

OFT 211   Speedwriting II   3
A brief review of speedwriting theory and the building of a broad basic speedwriting vocabulary. Development of transcription techniques necessary for the production of mailable letters. Dictation at progressively increasing rates of speed on previewed and new material. Prerequisite: OFT 210 (recommended speedwriting speed of at least 50 wpm.   (Spring)

OFT 212   Office Procedures   3
Introduction to the responsibilities and the opportunities of the secretarial position with a strong emphasis on the administrative aspects of secretarial work. Includes telephone communication, reprographics, records management, mailing operations, time management, and decision-making techniques. Prerequisite: OFT 112. Strongly recommended: BUS 106.   (Fall)

OFT 213   Word Processing I   3
The student will receive instruction and hands-on experience using word processing software and the Internet on microcomputers. Proofreading skills are reinforced in this course. Prerequisite: OFT 112.   (Fall)

OFT 214   Word Processing II   3
The student will receive instruction and hands-on experience using word processing, spreadsheet, database and presentation software as well as the integration of these packages. Prerequisite: OFT 213.   (Winter)

OFT 220   Executive Transcription   3
Designed to prepare the student for effective machine transcription of a wide variety of documents. Emphasis is placed on production of sustained mailable copy using a cassette transcriber as well as spelling which will strengthen transcription skills. Prerequisites: OFT 120; OFT 213.   (Winter)

OFT 221   Executive Office Procedures   3
Through the use of simulated office projects, students will apply the principles of office procedures to the executive office environment. Emphasis on attitude as it applies to success in the office environment is an important part of this course. Prerequisites: OFT 212; OFT 214; OFT 220.   (Spring)

OFT 230   Legal Terminology & Transcription   3
Development of familiarity with legal terminology emphasizing definitions, spelling, and machine transcription. Legal correspondence and documents will be transcribed. Prerequisite: OFT 120.   (Fall)

OFT 231   Advanced Legal Transcription   3
Machine transcription of legal correspondence and documents at employable production rates as well as emphasis on spelling legal terminology which will strengthen transcription skills. Prerequisites: OFT 230 and OFT 213.   (Winter)

OFT 232   Legal Office Procedures   3
Through the use of simulated office projects, students will apply the principles of office procedures to the legal office environment. Emphasis on attitude as it applies to success in the office environment is an important part of this course. Prerequisite: OFT 212; OFT 214; OFT 230.   (Spring)

OFT 240   Medical Terminology & Transcription   3
Development of familiarity with medical terminology emphasizing definitions, spelling, and machine transcription. Medical correspondence and reports will be transcribed. Prerequisite: OFT 120.   (Fall)

OFT 241   Advanced Medical Transcription   3
Machine transcription of medical correspondence and reports at employable production rates as well as an emphasis on spelling medical terminology which will strengthen transcription skills. Prerequisites: OFT 213; OFT 240.   (Winter)

OFT 242   Medical Office Procedure   3
Through the use of simulated office projects, students will apply the principles of office procedures to the medical office environment. Emphasis on attitude as it applies to success in the office environment is an important part of this course. Prerequisites: OFT 212; OFT 214; OFT 240.   (Spring)

OFT 250   Word Processing Transcription   3
Designed to prepare the student for effective machine transcription of a wide variety of documents. Emphasis is placed on production of sustained mailable copy using a cassette transcriber as well as spelling skills which will strengthen transcription skills. Prerequisites: OFT 120; OFT 213.   (Winter)

OFT 251   Word Processing Procedures   3
Through the use of simulated word processing projects, students will apply the principles of office procedures to the word processing environment. Emphasis on attitude as it applies to success in the office environment is an important part of this course. Prerequisites: OFT 212; OFT 214; OFT 250.   (Spring)

OFT 290	**Cooperative Education I**	(All)	**Varies**
OFT 291	**Cooperative Education II**	(All)	**Varies**
OFT 299	**Seminar**	(All)	**varies**

ORIENTATION   Credit Hours

ORI 100   College Success Strategies   1
The CSS course is designed to be a guide to higher education at Reading Area Community College (RACC) It affords students the opportunity to evaluate their goals and commitment to higher education early in their undergraduate experience. Emphasis is placed on the student's academic and personal development in the college environment. Prerequisite: COM 009 or permission of instructor.   (All)

All = Fall, Winter, Spring

ORI 101   **College Success Strategies (CSS)**
                            for LEP Stdents   **1**

The CSS course is designed to meet the special needs of LEP students as they enter occupational or transfer programs at Reading Area Community College. It affords them the opportunity to evaluate their goals and commitment to higher education early in their undergraduate experience. Emphasis is placed on the students' academic and personal development in a multi-cultural and multi-lingual college environment. Co-requisite: COM 013 or placement by assessment.

ORI 299   **Seminar**   (TBA)   **Varies**

PHYSICS   Credit Hours

PHY 120   **Principles of Physics**   **4(Lab)**
Principles of Physics is an algebra-based first-year college physics course which covers the concepts of physics. Among the topics include nature of physics, description of motion, Newtown's Laws, circular motion, momentum, energy and oscillations, temperature and heat, electrostatic phenomena, and sound waves. Prerequisite: MAT 030 (with a "C" or better) or placement by assessment; COM 061.
(Fall)

PHY 150   **Applied Physics**   **4**
This is an algebra-based course with some trigonometry designed for students in the technologies including Nanoscience. The course provides the student with an integrated view of how basic concepts of physics are applied to mechanical, fluid, electrical, and thermal systems. The course uses every-day examples to show how these concepts are applied. It stresses accurate measurements, and the recording and manipulation of data. Prerequisites: COM 061; MAT 110 or MTT 125.   (Spring)

PHY 240   **Physics I**   **4(Lab)**
Physics I is a non-calculus based physics course with emphasis on the aspects of matter and energy that governs the functioning of our universe. Among the topics included are vector analysis, kinematics, force and motion, two dimensional motion, gravitation, energy, momentum and collisions, heat and calorimetry. Students will be expected to perform experiments and interpret results using the basic theories of physics. Prerequisite: MAT 165 (may be taken concurrently) and PHY 120 (or HS Physics within last 5 years).   (Winter)

PHY 245   **Physics II**   **4(Lab)**
Physics II is a non-calculus based physics course with emphasis on the physical principles of electricity, magnetism, and optics. Among the topics include electrostatics, direct current circuits, magnetism, electromagnetic induction, capacitance and inductance, alternating current circuits, geometrical optics, lenses and mirrors and wave optics. Students will be expected to perform experiments and interpret results using the basic theories of physics. Prerequisite: PHY 240.   (Spring)

PHY 290   **Cooperative Education I**   (All)   **Varies**
PHY 291   **Cooperative Education II**   (All)   **Varies**
PHY 299   **Seminar**   (TBA)   **Varies**

POLITICAL SCIENCE   Credit Hours

POS 130   **American Government**   **3**
A general explanation of the dynamics of the American political system. Governmental structures, processes, political parties, and citizen and group action are described and analyzed in the context of American political culture with an emphasis on national politics and issues. Prerequisite: COM 051; COM 061.
(Fall/Winter)

POS 135   **State & Local Government**   **3**
This political science course is designed to provide basic theory and knowledge of the operation of American state and local political systems within the American Federal system. Through systems analysis, students learn to comprehend the interrelationships between individuals, interest groups, political parties, and the legislative, executive, and judicial organizations of government as they cooperate and conflict over the resolution of problems. Public policy issues of current controversy to state and local systems are treated as part of the course. Prerequisite: COM 051; COM 061.   (Spring)

POS 290   **Cooperative Education I**   **Varies**
Prerequisite: 27 credits earned in student's curriculum with a 2.0 QPA.   (All)

POS 291   **Cooperative Education II**   **Varies**
Prerequisite: 27 credits earned in student's curriculum with a 2.0 QPA.   (All)

POS 299   **Seminar**   (TBA)   **Varies**

PRACTICAL NURSING   Credit Hours

PNP 110   **Body Structure & Function**   **3**
This course is designed to acquaint practical nursing students with basic normal human anatomy and physiology. Integrated action between all body systems will be stressed. Prerequisite: Completion of selective admissions procedure.   (Fall)

PNP 115   **Medical/Surgical Nursing I for the**
                            Practical Nurse   **1**
This course introduces the practical nursing student to universal precautions. The health continuum is presented along with the basic identification of the classifications of illness, diagnostic and treatment modalities. Also integrated into this course are the fundamentals of microbiology. Immunity and immunizations are discussed as they relate to the practical nursing student, the client and the community. Prevention of disease is emphasized with emphasis on universal precautions in the prevention of spread of disease. Prerequisite: Completion of selective admissions procedure.   (Fall)

PNP 120   **Nursing Skills I for the Practical Nurse**   **2**
In this course the practical nursing student learns nursing principles and beginning skills that provide the foundation for safe, effective nursing care to selected clients within the scope of practical nursing. Prerequisite: Completion of selective admissions procedure.   (Fall)

PNP 122   **Nursing Skills II for the Practical Nurse**   **3**
In this course the practical nursing student is introduced to the nursing process (within the scope of practical nursing) as a method by which practical nursing is practiced systematically. Prerequisite: Completion of selective admissions procedure.
                                           (Fall)

All = Fall, Winter, Spring

PNP 125　　Contemporary Practical Nursing I　　1
This course describes the philosophy and goals of the Practical Nursing program. This broad overview is intended to enhance the individual's understanding of his/her place in the U.S. health care system. An overview of nursing theory and how nursing theory can be related to the care of clients within the health care delivery system is presented. Differences in individuals are explored; and issues related to ethical dilemmas and legal concerns are addressed. Prerequisite: Completion of selective admissions procedure.　　(Fall)

PNP 130　　Nutrition for Practical Nursing　　1
This course is designed to present the fundamental principles and practices that are essential in nutritional care to promote health, prevent illness and provide support and therapy during illness. Normal nutritional needs are incorporated as they relate to the practical nursing student, the client and the community. Prerequisite: Completion of selective admissions procedure.
　　(Fall)

PNP 135　　Community Issues in Practical Nursing　　1
This course describes the concept of health. The focus is on personal and community health. Roles of the State Health Department and of the voluntary health agencies are explored.
　　(Fall)

PNP 140　　Pharmacology for Practical Nursing　　3
Concurrent clinical and theory components of this course prepare the practical nursing student to provide safe, competent practical nursing care to clients receiving drug therapy. Theory segment includes dose calculation, drug classifications, usage, reference sources and legal requirements. Clinical component provides class demonstration, laboratory simulation and clinical experience in drug administration. Practical nursing students will apply this information (within the scope of practical nursing) to meet the needs of selected clients.　　(Winter)

**PNP 145　　Medical-Surgical Nursing II for the
　　　　　　　Practical Nurse　　8**
This course deals with adults with more complex nursing care needs. The course addresses common health alterations and health promotion measures. Conditions related to the reproductive, integumentary, musculoskeletal and respiratory systems are included. General gerontological considerations are included.　　(Winter)

PNP 150　　Growth & Development for Practical Nursing　　1
This course examines human dynamics through the life cycle. Growth and development from birth to adolescence are stressed and practical nursing students explore community resources and family-centered health care.　　(Spring)

PNP 155　　Maternity Care for Practical Nursing　　3
Nursing care of the pregnant woman, new mother and infant are discussed, including physical and emotional factors. Normal fetal growth and development and community resources are included. Practical nursing students apply theory in the clinical area during this course by utilizing the nursing process (within the scope of practical nursing) to meet the needs of selected clients.　　(Spring)

PNP 160　　Pediatric Care for Practical Nursing　　3
This course includes concurrent theory and clinical practice related to nursing care of children between infancy and late adolescence. Health promotion, alterations in health, treatment of illnesses, rehabilitation, nutrition, and pharmacology are stressed.　　(Spring)

**PNP 165　　Medical-Surgical Nursing III for the
　　　　　　　Practical Nurse　　4**
This course deals with adults with more complex nursing care needs, including common health alterations and health promotion measures. Problems related to the cardiovascular and digestive systems are included. Relevant nutrition, pharmacologic and gerontologic considerations are also discussed. Practical nursing students apply the theory in the clinical area during this course by utilizing the nursing process (within the scope of practical nursing) to meet the needs of selected clients.　　(Spring)

**PNP 170　　Medical-Surgical Nursing IV for the
　　　　　　　Practical Nurse　　7**
This course deals with adults with more complex nursing care needs, including common health alterations and health promotion measures. Disorders related to the endocrine, urinary, nervous and sensory systems, including alterations in function in the aged client are included. Practical nursing students apply theory in the clinical area during this course by utilizing the nursing process (within the scope of practical nursing) to meet the needs of selected clients.　　(Summer)

PNP 175　　Contemporary Practical Nursing II　　1
This course emphasizes practical nursing organizations, licensure and current trends in the care of clients. Practical nursing students practice completing job applications and submitting resumes. They also have the opportunity to practice interview techniques with role-playing activities.　　(Summer)

PNP 180　　Intravenous Therapy for Practical Nursing　　1
This course provides knowledge and skills to address practical nursing responsibilities, quality assurance, body structure and function, body fluids and electrolytes, pharmacology, IV equipment, infection control, universal precautions and IV therapy procedures within the scope of practice for the LPN.
　　(Summer)

PNP 290	Cooperative Education I	(TBA)	Varies
PNP 291	Cooperative Education II	(TBA)	Varies
PNP 299	Seminar	(TBA)	Varies

PROGRAMMING　　Credit Hours

PRG 100　　Introduction to Computer Programming　　3
This course is for Information Technology majors. Fundamental concepts of computer programming logic are described. Input, output, and processing principles as well as data processing capabilities of the computer are explained. Industry accepted pseudocoding techniques are used for logic development. The programming language QBASIC is introduced to allow the student to apply the pseudocode logic to a program for visual output. Prerequisite: COM 061; MAT 030.　　(Fall/Winter)

PRG 110　　AS/400 Computer Operations　　3
This course is intended to teach the student comprehensive skills in the areas of AS/400 system/user interface, member-object-library relationships, use of CL commands, database concepts, and program development utilities. Prerequisite: COM 061 and MAT 020.　　(Fall)

PRG 120　　COBOL　　3
This course is designed to teach the basic language elements of the Common Business Oriented Language and to provide experience in communicating with a computer in this language. A problem-oriented approach is used. Problems are defined, the logic is created using flowchart or pseudocode, the programs are coded in COBOL, compiled, debugged, tested, and documented. Prerequisite; PRG 100, PRG 110.　　(Winter)

All = Fall, Winter, Spring

PRG 130   RPG IV   3
This course is intended to teach the student batch programming techniques using the problem-oriented language, RPG IV. Prerequisite: PRG 110; PRG 220.   (Winter)

PRG 140   Visual Basic   3
This course is designed to teach the basic language elements of the Visual Basic programming language and to provide experience in communicating with a computer in this language. Visual Basic will be used to create innovative and useful windows programs. Prerequisite: IFT 120, PRG 100.   (Fall)

PRG 150   C++   3
This course is designed to teach the basic language elements of the C++ language and to provide experience in communicating with a computer using this language. Prerequisite: PRG 100.
                                                                    (Spring)

PRG 160   JAVAScript   3
This course is designed to teach the beginning programmer how to develop Web applications using the JAVAScript programming language. You will learn how to make Web pages dynamic. The course will demonstrate how to use Script to add functionality to web pages by initializing code within an HTML document. This course is designed for individuals with no knowledge of Hypertext Markup Language (HTML). Prerequisite: PRG 100.
                                                                    (Spring)

PRG 200   Systems Analysis & Design   3
The course will include analysis, design, and implementation of computer information systems using structured design methodology. Introduction to entity-relation diagrams, data flow diagrams, data structure diagrams, and data dictionary concepts will also be included in the course. Emphasis is on computer information system design and specification techniques. A formal presentation of a system specifications and design and an implementation schedule is required at the end of the course. Prerequisite: Formal education or experience with a programming language such as COBOL, C++, etc.   (Fall)

PRG 220   Advanced COBOL   3
This course is designed to teach the advanced elements of the Common Business Oriented Language (COBOL) and to provide experience in communicating with a computer in this language. Prerequisite: PRG 120.   (Spring)

PRG 230   Advanced RPG IV   3
This course is intended to teach the student advanced batch and interactive programming techniques using the problem-oriented language, RPG IV. Prerequisite: PRG 130.   (Spring)

PRG 240   Advanced Visual Basic   3
This course covers advanced Windows application development using MS Visual Basic 6.0. The student will continue to develop programming skills and create projects with data management using the ADO data control. Also, the student will use object-oriented programming (OOP) concepts to develop a three-tier data application. The student will create ActiveX components and build standalone applications that call procedures from the Windows API. Prerequisite: PRG 140.   (Winter)

PRG 250   Advanced C++   3
This course is designed to teach the advanced language elements of the C++ programming language and to provide experience in communicating with a computer in this language. This course will emphasize the applications of software engineering techniques to the design and implementation of programs that manipulate more complex data structures. Prerequisite: PRG 150.   (Fall)

PSYCHOLOGY   Credit Hours

PSY 100   Personal Development   3
This course is designed to provide students with skills needed to be successful in the college environment and to enhance self-awareness, interpersonal communication, and decision-making skills. Prerequisite: COM 009.   (TBA)

PSY 115   Modern Parenting   3
The Modern Parenting course is intended to offer students a thorough introduction to the theoretical and practical principles involved in effective parenting and childrearing. It provides students with an understanding of the roots of personality development. Students will examine childrearing practices and gain insight into the relationships among parenting, emotional development and the behavior of the child. Emphasis is placed upon family communication, roles, conflicts and their effects upon the developing individual. Prerequisite: COM 061.   (Winter)

PSY 120   Interpersonal Relations & Communications   3
The course investigates how individuals relate on a personal level. Consideration will be given to verbal and non-verbal communications. Prerequisite: COM 051; COM 061.   (All)

PSY 130   General Psychology   3
This course will concern itself with psychological phenomena which are basic for understanding human behavior; topics include history, methods and fields of psychology, learning, motivation, memory, intelligence, emotion, personality and psychological disorders and their treatment. Prerequisite: COM 051; COM 061.   (All)

PSY 131   General Psychology (Honors)   3
This course will concern itself with psychological phenomena that are basic for understanding human behavior; topics include history, methods and fields of psychology, learning, motivation, memory, intelligence, emotion, personality, human development, and psychological disorders and their treatment. The course will involve in depth study and exploratory learning, essay writing, collaborative activities, and individualized research. Prerequisite: COM 051; COM 061; and eligibility for the Honors Program.   (TBA)

PSY 210   Child Psychology   3
This course explores various theories of physical, cognitive, and social-emotional development from infancy through middle childhood. Prerequisite: COM 121; PSY 130.   (All)

PSY 212   Adolescent Psychology   3
Adolescence is considered a distinctive phase of human development in this psychology course. The interaction of biological and psychological variables is examined to provide knowledge of the relationship and the manifestation of behavior attendant thereto which tends to occur during the period of adolescence. Theories advanced by major schools of psychology will be studied as well. Prerequisite: COM 121; PSY 130.
                                                                    (Fall/Spring)

PSY 214   Psychology of Adulthood & Aging   3
This course is designed to fill the void in knowledge created by the assumption that adulthood is a period of unchanging life, and offers specific information which demonstrates the varying phases adults experience. It directs students to alter their presumptions and assist them in developing skills to recognize variation in adult behavior as symptomatic of phase changes. Prerequisite: COM 121; PSY 130.   (Fall)

PSY 216   Psychology of the Exceptional Child   3
A survey of human differences such as learning disabilities, mental retardation, giftedness, physical and emotional

All = Fall, Winter, Spring

impairments and cultural differences constitute the focus of the course. Cultural and social influence upon children from birth through adolescence will be discussed as they affect cognitive, social, emotional and physical development. Prerequisite: COM 121; PSY 130. (Spring)

PSY 220   Mental Health   3
Mental Health focuses on the various forms of adjustment that individuals use to cope with stress, frustration, and pressures. Students will be given an opportunity to improve their coping skills - i.e., dealing with problems in a task-oriented rather than ego-oriented manner. Discussion will be held concerning the use of defenses and secondary gains in the different forms of psychopathology. In Mental Health, humans are viewed holistically as a product of physiological, psychological, social and cultural factors. Prerequisite: COM 121. (Winter)

PSY 225   Behavior Modification   3
The theory and application of behaviorist psychology is the essence of this course. All phases of behavior modification programming as used in human service settings are addressed. Prerequisite: COM 121. (Spring)

PSY 230   Abnormal Psychology   3
This course will focus on the various forms of abnormal behaviors exhibited by individuals. It will inquire into the maladaptive behaviors and problems exhibited by people and current procedures used therapeutically to help people function more fully. Prerequisite: COM 121; PSY 130. (Fall/Winter)

PSY 232   The Addictive Processes   3
The Addictive Processes is a course designed to give students an in-depth understanding of the processes by which individuals become addicted. Chemical substances and other physical and psychological addictions will be considered. The course will also examine the various contemporary clinical, mutual self-help, and primary prevention programs and approaches used to deal with problems of addiction. Prerequisite: COM 121. (Spring)

PSY 235   Social Psychology   3
An analysis of the major thought systems, schools of psychology, and general theories of social psychology. Prerequisites: COM 121; PSY 130 and/or SOC 130. (Winter)

PSY 240   Educational Psychology   3
Educational Psychology is a course designed to give students an introduction to the psychological principles in education. Learning styles, curriculum, and methods will be explored. Educational implications of research on child development, cognitive science, learning, and teaching will be analyzed. Prerequisite: COM 121; PSY 130. (All)

PSY 255   Interpreting Lives: Rites of Passage,
**   Personal History, & the Life Cycle**
**   (Honors)   3**
Same as ANT 255 & HIS 255. See ANT 255 for course description. (TBA)

PSY 290   Cooperative Education I   (All)   **varies**
Prerequisite: 27 credits earned in student's curriculum with a 2.0 QPA.

PSY 291   Cooperative Education II   (All)   **varies**
Prerequisite: 27 credits earned in student's curriculum with a 2.0 QPA.

PSY 299   Seminar   (TBA)   **varies**

RESPIRATORY CARE   Credit Hours

RES 110   Orientation to Respiratory Care I   1
History, organization, and scope of practice will be discussed. Tour of respiratory care department will be scheduled. (Fall)

RES 200   Cardiopulmonary Anatomy & Physiology   1
The course is designed to reinforce and refine the student's knowledge of the structure and function of the cardio-pulmonary system. The course also introduces the student to the physiology of gas exchange mechanisms and acid/base balance, include arterial blood gas interpretation. Prerequisite: acceptance into the Respiratory Program by the Program Director and a "C" or better in all first year coursework. (Summer)

RES 201   Respiratory Care I   6(Lab)
The course is designed to develop a solid, practical knowledge of respiratory care. Lecture topics revolve around the etiology, manifestations, and general management of obstructive lung diseases. Laboratory exercises include patient assessment, oxygen, humidity and aerosol administration, incentive spirometry, and chest physical therapy. An introductory clinical experience will also be provided. Prerequisite: acceptance into the Respiratory Program by the Program Director and a "C" or better in all first year coursework. (TBA)

RES 212   Pharmacology   2
This course includes the basic principles of pharmacology. Respiratory drugs are described. Corequisite: RES 210, RES 211. (Summer)

RES 225   Clinical Practicum I   5
Basic respiratory care modalities will be practiced in the hospital setting on non-critical patients. The student will practice the administration of medical gas therapy, humidity, and aerosol therapy, aerosol therapy with pharmacological agents, chest physical therapy, and incentive spirometry. Patient assessment mechanisms will be observed and the student will practice some techniques. Prerequisite: RES 200, RES 201, and RES 212 with a grade of "C" or better. (TBA)

RES 226   Respiratory Care II   3(Lab)
The course is designed to continue building a practical knowledge of respiratory care. Lecture topics include airway management, cardio-pulmonary pathophysiology, a variety of non-invasive positive pressure modalities, arterial blood gas punctures, and advanced interpretation of ABG's. Laboratory exercises that coincide with the lecture material will be provided.

All = Fall, Winter, Spring

Prerequisite: RES 200, RES 201, and RES 212 with a grade of "C" or better.   (TBA)

RES 235   Clinical Practicum II   4
This course is designed to expand on the experience of RES 225 Clinical Practicum I. In addition to refining skills learned in RES 225, the student will add non-invasive positive pressure modalities and arterial blood gases to their repertoire. Respiratory care modalities will be practiced in acute and progressive ("step-down") care hospital settings. Patient assessment mechanisms will also be refined and expanded. Prerequisite: RES 225 and RES 226 with a grade of "C" or better.   (TBA)

RES 236   Respiratory Care III   6(Lab)
The course is designed to develop a solid, practical knowledge of respiratory care within the critical care and diagnostics laboratory settings. Lecture topics include initiation, maintenance, and discontinuance of ventilatory support, non-invasive and invasive cardio-pulmonary monitoring of the critically ill patient, chest x-ray interpretation and basics of pulmonary function testing. Laboratory exercises will be provided for these modalities. Prerequisite: RES 225 and RES 226 with a grade of "C" or better.   (TBA)

RES 245   Clinical Practicum III   7
This course is designed to cumulate the student's clinical rotations. In addition to modalities already mastered, the student will practice skills in the critical care and pulmonary function testing settings. Priority will be given to critical care experiences to prepare the student for entry into the working world. Prerequisite: RES 235 and RES 236 with a grade of "C" or better   (TBA)

RES 246   Respiratory Care IV   1
The course is designed to prepare the student for transition for student to graduate therapist by emphasizing critical thinking skills through case studies and simulations. Test preparation methods and skills are also covered. Prerequisite: RES 235 and RES 236 with a grade of "C" or better.   (TBA)

RES 290	**Cooperative Education I**	(TBA)	**Varies**
RES 291	**Cooperative Education II**	(TBA)	**Varies**
RES 299	**Seminar**	(TBA)	**Varies**

RES 301   Advanced Diagnostics   8(Lab)
The course assumes a basic working knowledge of the procedures and testing mechanisms used in the diagnosis and assessment of pulmonary diseases while introducing the diploma candidate to more sophisticated procedures of pulmonary medicine. Topics include advanced patientassessment techniques, complete pulmonary function regimens, metabolic testing, assessment of respiratory-related sleep disorders, cardiobascular stress testing, chest x-ray and ECG interpretation, bronchoscop, and hemodynamic monitoring. The course consists of lecture, exams, laboratory exercises, and independent study on topics assigned by the instructor. Clinical experience will reflect the student's growing knowledge of pulmonary diagnostic procedures. Prerequisite: Admission to the Diploma Respiratory Therapist program by both graduation from an AMA approved and CoARC accredited Entry-level Respiratory Therapy program and certification (CRT) through the auspices of the National Board of Respiratory Care (NBRC).

RES 302   Critical Respiratory Care   8(Lab)
The course is designed to review basic principles of critical respiratory care as well as more complex principles. Topics include pathophysiology of respiratory failure, graphic representation of flow, volume, and pressure on ventilatory support, newer modes of ventilation such as PCIRV, HFV, HFJV, BiPAP, etc., invasive and non-invasive monitoring of the mechanically ventilated patient, nutrition of the mechanically ventilated patient.The course consists of lecture and exams, laboratory exercises, and independent study on topics assigned by the instructor. Clinical experiences will reflect the student's increasing knowledge of critical respiratory care. Prerequisite: Admission to the Diploma Respiratory Therapist program by both graduation from an AMA approved and CoARC accredited Entry-level Respiratory Care program and certification (CRT) through the auspices of the National Board of Respiratory Care (NBRC).   (Fall)

RES 303   Rehabilitation & Home Respiratory
**   Care   6(Lab)**
The course is designed to develop a practical, working knowledge of the procedures used in pulmonary rehabilitation and home respiratory care. Topics include the rehabilitation team, patient teaching methods and exercise testing. Respiratory care modalities in the home, including long-term oxygen therapy, airway care and mechanical ventilation will also be covered. The course consists of lecture, exams, laboratory exercises, and independent study on topics assigned by the instructor. Clinical experiences will reflect the student's growing knowledge of pulmonary rehabilitation and home respiratory care procedures. Prerequisite: Admission to the Diploma Respiratory Therapist program by both graduation from an AMA approved and CoARC accredited Entry-level Respiratory Care program and certification (CRT) through the auspices of the National Board of Respiratory Care (NBRC).   (Summer)

RES 304   Neonatal & Pediatric Respiratory Care   8(Lab)
The course is designed to develop an understanding of neonatal and pediatric respiratory care. Four major areas are covered during the course: general introductory concepts (including gestational cardiopulmonary development and neonatal assessment, disease states, equipment and therapy, and patient outcomes. The course consists of lecture, exams, laboratory exercises, and independent study on topics assigned by the instructor. Clinical experiences will reflect the student's growing knowledge of pulmonary diagnostic procedures. Prerequisite: Admission to the Diploma Respiratory Therapist program by both graduation from an AMA approved and CoARC accredited Entry-level Respiratory Care program and certification (CRT) through the auspices of the National Board of Respiratory Care (NBRC).   (Spring)

RES 342   Advanced Topics in Respiratory Care   2
Topics from journal reviews, guest lecturers, and slected readings. Research paper is required. Prerequisite: Admission to the Respiratory Therapist Certificate program (or permission of the instructor)   (All)

SOCIAL SCIENCE TECHNOLOGY   **Credit Hours**

SST 110   Information Technology
**   For the Social Sciences   3**
This course partially meets the needs of the Social Science/ Human Services students and practitioners in the area of information technology. By gaining exposure to and experiences with methods to access, evaluate, manipulate, and generate information in the Social Sciences disciplines, students will prepare for both success in further studies and increased productivity in the workplace. Course emphasis is on information sources and content that specifically apply to the social sciences and correlate to particular programs of study. Prerequisite: COM 051 and COM 061.   (All)

All = Fall, Winter, Spring

SOCIOLOGY

Credit Hours

SOC 120   Organizational Behavior   3
The formal structure of organizations will be considered. The interaction of groups within formal organizational structures will also be covered. Prerequisite: COM 051; COM 061.   (Spring)

SOC 125   The Individual & Society   3
This is a course designed to help students cope with life as well as to acquaint them with the basic theory and knowledge of the social sciences. Information from psychology, sociology, anthropology, political science and economics is integrated to help students comprehend the operation of both their own and other social systems. The course emphasizes the relationship of individuals to these systems. It also encourages the development of attitudes and skills which will result in greater self-determination of life-style for individuals in contemporary society. Prerequisite: COM 051; COM 061.   (All)

SOC 130   Sociology   3
Basic theory, methodology, and knowledge from the field of sociology are the subjects of this course. Concepts such as group, role, norm, status, stratification, socialization, social control and deviance are discussed. Utilizing various cultures at various times as examples, the understanding of social change is promoted. Prerequisite: COM 051; COM 061.   (All)

SOC 131   Sociology (Honors)   3
Basic theory, methodology, and knowledge from the field of sociology are the subjects of this course. Concepts such as group, role, norm, status, stratification, socialization, social control and deviance are discussed. Utilizing various cultures at various times as examples, the understanding of social change is promoted. Honors courses involve more in-depth study than non-honors courses and often involve exploratory learning, essay writing, collaborative activities and individualized research. Prerequisite: COM 051; COM 061.   (All)

SOC 210   Social Problems   3
Basic social problems, their causes, controls, and effects upon society will be explored. The course also focuses upon the identification of current social issues and the role of social policy making in implementation of social problems and change. Prerequisite: COM 121.   (Spring)

SOC 220   The Family   3
This course examines the family from the interdisciplinary viewpoint of sociology, psychology, and cultural anthropology with special emphasis on the American family.   The course includes family and personality, universal patterns, cultural and social variations of family structures, problems in family life and reorganization of the family. Prerequisites: COM 121; PSY 130.   (Winter)

SOC 225   Drugs & Alcohol in American Society   3
This course will concern itself with the use and abuse of alcohol and other drugs within American society. Specific information about different classifications of drugs, patterns of use and abuse, historical perspectives, laws, prevention and treatment will be presented. Prerequisite: COM 121.   (Winter)

SOC 230   Sociology of Gender   3
This course focuses on the evidence gathered by social scientists in their attempts to resolve the nature-nurture dispute about the origin of the observed average male-female differences in preferences, abilities, and behavior. It also considers the strategies that are being employed or planned to eliminate sexist obstacles that hinder the full achievement of individual potentials. Prerequisite: COM 121; SOC 125 or SOC 130.   (Spring)

SOC 290   Cooperative Education I   Varies
Prerequisite: 27 credits earned in student's curriculum with a 2.0 QPA.   (All)

SOC 291   Cooperative Education II   Varies
Prerequisite: 27 credits earned in student's curriculum with a 2.0 QPA.   (All)

SOC 299   Seminar   (TBA)   Varies

All = Fall, Winter, Spring

SPANISH

Credit Hours

SPA 101   Spanish I   3
This is an elementary course designed for beginning students of Spanish. It is taught with a communicative approach. Students develop listening, speaking, reading, and writing skills that help them to function in simple situations of immediate relevance in the present tense. Textbook and authentic (native Spanish) materials are used to introduce students to aspects of the cultures of Spanish-speaking countries. (This course is not open to fluent native speakers of Spanish.) Prerequisite: COM 061.
(Summer, Fall, Winter)

SPA 102   Spanish II   3
A continuation of Spanish I, Spanish II is an elementary course taught with a communicative approach. Students develop listening, speaking, reading, and writing skills that help them to function in simple situations of immediate relevance in the past and present. Textbook and authentic (native Spanish) materials are used to introduce students to aspects of the cultures of Spanish-speaking countries. (This course is not open to fluent native speakers of Spanish.) Perequisite: SPA 101 or permission of instructor.   (All)

SPA 201   Spanish III   3
This is an intermediate course taught with a communicative approach. Students develop listening, speaking, reading, and writing skills that help them to function in situations of moderate complexity, to ask for and express opinions, and to make suggestions. At this level of Spanish, students prepare short guided writing assignments. Textbook and authentic (native Spanish) materials are used to familiarize students with aspects of the cultures of Spanish-speaking countries. Prerequisite: SPA 102 or permission of instructor.   (Spring)

SPA 202   Spanish IV   3
This is an intermediate course taught with a communicative approach. Students refine listening, speaking, reading, and writing skills that help them to function in situations of moderate complexity, to give supported opinions, and to express their ideas in speech and writing. Students review basic grammar skills and are introduced to more advanced grammar. At this level of Spanish, students prepare short guided writing assignments. Textbook and authentic (native Spanish) materials including audio, video, and literary texts are used to familiarize students with aspects of the cultures of Spanish-speaking countries. Prerequisite: SPA 201 or permission of instructor.   (Fall)

SPA 299   Seminar   (TBA)   varies

*Placement Guidelines for Foreign Language Classes
Students should select a class based on their prior experience; if they follow these guidelines in selecting a course, they will have the instructor's permission to enter the level of language study indicated here.

Non-native speakers: Students with no experience or with one years of high school Spanish should take Spanish I. Spanish II is the appropriate choice for students with two or three years of high school Spanish. Students with four years of high school Spanish should take Spanish III or Spanish IV; Spanish III will offer greater opportunity for review. Students who have been away from language study for a number of years, had unsatisfactory grades in previous language courses, or attended classes where the primary focus was limited to conjugating verbs or translating sentences may select a lower course in consultation with their instructor or advisor. Please note that Spanish I and Spanish for Health Care Providers are designed for students with no experience in the language.

Native speakers of Spanish: Students who have had listening and/or speaking practice in the home setting but limited experience writing should take Spanish I. Students with intermediate high proficiency in Spanish, are confident writing and speaking about past, present, and future events, listing daily activities, asking questions, and describing themselves, family, and friends, should enroll in Spanish III or IV.

SPECIAL EDUCATION   Credit Hours

SPE 100   Introduction to Special Education   3
This course is intended to give students a foundation of knowledge about the nature and needs of children with special needs and their families. It introduces the students to federal and state laws and regulations, including the Individuals with Disabilities Act (IDEA), classifications of disabilities, service options, and procedural safeguards. Current issues, research, and techniques for education students with disabilities are reviewed. Prerequisite: PSY 130.   (All)

SPE 205   Accommodating Children with Exceptionalities in the Classroom   3
This course introduces students to techniques for restructuring, adapting, and modifying educational environments to accommodate individual needs of children. Emphasis will be placed on techniques for accommodating children in the following areas: physical, behavioral, academic, communication, and social environments. Students will participate one hour weekly in a support of inclusive classroom environment. Prerequisites: COM 121; PSY 130.   (Fall)

SPE 210   The Paraeducator Professional   3
This course introduces students to the role and responsibilities of the paraeducator in relationship to the child, family and educators. This course addresses the knowledge and skill necessary for collaboration and positive communication with families, regular and special educators, and other professional staff within diverse learning environments. Topics addressed will include the following: law, health, safety, school systems, confidentiality, and professional standards. Prerequisites: COM 121; PSY 216; SPE 100.   (Winter)

SPE 215   Assistive Technology for Children with Exceptionalities   3
This course emphasizes the role of assistive technology as a related service in supporting children with exceptionalities in educational environments. It addresses legal requirements and funding issues. Students will identify national, state, and local resources and are given the opportunity for hands-on experiences with a wide array of technological devices. Prerequisites: SPE 100; COM 121.   (Fall)

SPE 220   Instructional Strategies for Children with Exceptionalities   3
This course introduces students to the process of developing, implementing, and monitoring individualized instructional strategies. Implementation of Individualized Educational Program (IEP) through goals and objectives is emphasized. Special attention will be given to developing strategies to work with children who are culturally and linguistically diverse. Students will participate 2 hours weekly in a support or inclusive classroom. Prerequisites: COM 121; ECE 125 or EDU 130 or approved experience in an educational setting.   (Winter)

SPE 250   Practicum in Special Education   6
As culmination to the Paraeducator in Special Education, students are assigned to work for 200 hours with a cooperating teacher who will assist them as they learn to apply theory and ideas gained through previous coursework. The class will meet once a week to evaluate activities, share experiences, and assess readiness to direct additional activities. Prerequisites: PSY 210; PSY 216; SPE 215; SPE 220. (A grade of "C" or better in each course is necessary.)   (Spring)

WEB   Credit Hours

WEB 100   Web Design I -HTML   3
This course teaches students how to plan and design a web site using fundamental web design principles. Students also learn several criteria to evaluate and analyze web page designs. The course focuses on creating sites that are user oriented and which assess information easily and quickly. the course teaches the use of basic and intermediate level HTML. Additional topics include web typography, effective use of color and graphics, page layout techniques, and publishing and maintaining web sites. Prerequisite: COM 061, MAT 020.   (Fall)

WEB 115   Web Design II - Dreamweaver   3
This course teaches students to use the industry standard Web design application Macromedia Dreamweaver. Students will design and author a web site that is user-friendly, portable and easy to modify. Topics of this course include the use of tables for flexible layout and design, Cascading Style Sheets (CSS), selected JavaScript behaviors, the appropriate use of color, and effective navigation strategies. Students will learn to use Macromedia Fireworks to create and edit graphics appropriate for a Web site. At the completion of the course, students will have designed, created and tested a Web site. Prerequisite: WEB 100. (Winter)

WEB 200   E-Commerce   3
This course provides students with an understanding of the environment of Internet based selling of products and services. Students are introduced to the world of E-commerce through consideration of concepts including the role of the Internet as a component of a comprehensive marketing program, the development of an effective commercial website, and the use of the Internet as a payment mechanism. Prerequisites: BUS 100 and WEB 100.   (Spring)

WEB 210   Web Design Layout   3
This course is designed to give students experience structuring and organizing a successful web site. Students will learn how to effectively plan a site by evaluating its audience, defining the site's goals, examine competitors' sites, and establish a relevant site structure and navigational layout. The student will identify usability and accessibility issues including those relating to the Americans with Disabilities Act (ADA) and apply strategies to meet those requirements. Students will also study issues of contemporary web design aesthetics including navigation, visual design, page layout, typography and color. After developing a paper-based prototype of a site, the student will use Macromedia Dreamweaver to build a web site based on these functional and layout best prctices to enhance the user experience. The student will effectively use templates and Cascading Style Sheets (CSS) in the resulting web site. Prerequisite: WEB 115.   (Spring)

WEB 215   Web Design Graphics   3
This course teaches students to use Macromedia Fireworks, a professional graphics application, for the creation and editing of web site graphics. Students learn the basic and advanced tools in Fireworks. Students also create vector and bitmap graphics. TEchniques for efficiency such as using symbols and layers are practiced throughout the course. Students learn to create navigation bars, rollover buttons, image maps and pop-up menus for sophisticated, user-friendly web pages. Prerequisite: WEB 115.   (Spring)

WEB 220   Flash Animation for the Web   3
This course teaches students to use Macromedia Flash to design and build animated and interactive web sites. Students will become familiar with the Flash environment and learn to use its various tools and panels. Students will use the Macromedia timeline, frame by frame animation and tweening in an object-oriented environment to build Flash animations. Students will also use the Flash scripting language, ActionScript, to add interactivity and functionality to Flash movies. By the end of the course, students will be able to import Flash movie files into traditional HTML web sites. Students will also create sites that are entirely designed with Flash with minimal amounts of HTML. Prerequisite: WEB 115.   (Winter)

WEB 230   Web Databases   3
The student will learn how to use PHP to add functionality and interactivity to web sites. Students will also be able to manipulate online Access and MySQL databases with PHP scripting. Prerequisite: WEB 115.   (Fall)

All = Fall, Winter, Spring

Workforce and Economic Development/ Community Education

The Workforce and Economic Development/Community Education Division is a major and unique part of the offerings of Reading Area Community College. The College's Workforce and Economic Development/Community Education Division is committed to providing opportunities for adults to gain new knowledge and skills through formal and informal study. Workforce and Economic Development/Community Education registers approximately 30,000 area adults into classes annually. The Workforce and Economic Development/Community Education Division of Reading Area Community College is committed to:

• Providing education and training to meet job requirements or to facilitate achievement in certain occupations and professions.

• Providing customized training programs for local business and industry.

• Providing a wide variety of public safety programs for both the public and private sectors.

• Providing basic education programs in Adult Basic Education (ABE), English as a Second Language (ESL) and General Education Development (GED).

• Providing short unit classes, cultural events, informal discussion groups, films, exhibits, etc. as desired by the community.

Advisory committees comprised of community representatives assist the Workforce and Economic Development/Community Education Division in identifying education, training and cultural activities which are needed and desired by the community.

CONTINUING EDUCATION UNITS

Continuing Education Units (C.E.U.'s) are available for participating in Workforce and Economic Development/ Community Education programs. C.E.U.'s are based on a standard of one unit per ten hours of participation in an organized continuing education experience. Upon successful completion of a course, each participant is presented with a certificate recognizing their accomplishment.

The C.E.U. is a nationally recognized unit of measure used to accumulate a standardized, permanent record of participation in credit-free continuing education programs conducted under responsible sponsorship, capable direction and qualified instruction.

CONFERENCES, SEMINARS AND WORKSHOPS

Workforce and Economic Development/Community Education offers regularly scheduled conferences, seminars, and workshops for professional gain or personal development. Our professional staff will work with you in designing conferences, seminars or workshops to meet your organization's needs.

COURSES

Workforce and Economic Development/Community Education also offers business, manufacturing technology, information technology, health care, public service, public safety, technical and vocational courses to prepare workers for changing occupational demands. Regularly scheduled courses are held at one of our locations. As an option, customized programs may be held at your workplace - on company time or after working hours.

Schmidt Training and Technology Center

The Schmidt Training and Technology Center at Reading Area Community College is dedicated to providing a continuum of learning in advanced manufacturing skills, information technology, market knowledge, executive senior leadership, business performance and workforce readiness that meets the demands of the local and regional labor market. Manufacturing, IT and business professionals provide training using a hands-on learning approach.

The staff of Schmidt Training and Technology Center understands employers' technology challenges, operating systems and business performance objectives. We understand that business and industry growth is increasingly centered on new IT applications in addition to advanced technical innovation. We know that successful employers must find new ways to produce and deliver products and services to customers who will purchase these goods at prices that will provide profit.

OFFERINGS

Schmidt Training and Technology Center provides customized senior leadership and employee training that adjusts to the unique and changing needs of business and industry employers.

Senior Leadership - Senior Leadership training helps senior executives establish the critical links between their people, customers and business profitability and realize the untapped potential within their organization.

Manufacturing Technology - Manufacturing Technology training provides knowledge and skills for dislocated workers who desire better-paying jobs in manufacturing and for local industry (incumbent workers) seeking to increase productivity, efficiencies, employee retention and growth. This includes technical knowledge and skills in industrial mechanics, industrial electricity, industrial electronics, automated manufacturing and mechatronics.

Reading Area Community College is a regional Advanced Manufacturing/Integrated Systems Technology partner recognized by the U.S. Department of Labor and Industry's National Program for Integrated Systems Technology (NCIST). Manufacturing Technology classes use Advanced Manufacturing/Integrated Systems Technology equipment to provide industrial maintenance and manufacturing technology training.

Information Technology - Information Technology training provides knowledge and skills for dislocated workers and local industry (incumbent workers) who desire to gain current information technology knowledge, skills and certifications. We develop IT skill sets that will enable employers to creatively sustain competitiveness and provide better customer service. Our Microsoft, A+, Net+ and Security+ training prepares individuals to sit for certifications. Additional training in practical network cabling, wireless networking technologies and Voice Over Internet Protocol (VOIP) prepares individuals for many demand occupations in the fast-paced information technology field.

Workplace Readiness - Workplace Readiness training is designed to prepare entry-level employees to integrate into the business culture. This coursework will also prepare unemployed and underemployed citizens to gain the necessary skills for better paying jobs. Topics include work ethics, communications, teamwork, refresher math, workplace math and computer applications.

Workplace Literacy - Workplace Literacy provides the knowledge and skills necessary to perform tasks in the workplace. Today's workers must possess good verbal and writing skills and perform basic mathematical functions. The foundation of the program is basic literacy, which is equivalent to a high school diploma. English as a Second Language is offered for non-native English speaking participants. Once the basic literacy level is achieved, participants will take coursework in communication and math skills, with an emphasis on workplace applications.

Occupational Programs

HEALTH CARE
Courses, workshops and seminars are provided to meet the educational needs of the health care community. Programs deal with such topics as current trends and issues, technological advances, clinical updates, federal and state regulations, safety issues, legal issues and ethical issues. Programs are varied and are provided for any individual employed in health care. Seminars are available on both a regular basis and as customized training for any organization upon request.

BANKING
This professional development program consists of a systematic progression through one or more levels of education. Courses are offered to prepare bank employees to meet the needs of their customers.

VOCATIONAL TECHNICAL
Evening classes in vocational technical education are held at Reading Muhlenberg Vocational Technical School in the fall and winter. These hands-on classes are helpful in obtaining applied knowledge and skills in a variety of vocational and technical disciplines.

PUBLIC SAFETY
Courses, workshops and seminars are provided to meet the educational needs of individuals in the public safety sector. This includes fire, police, hazardous material and emergency medical services training for both career and volunteer personnel. In addition, training is provided for fire brigades and safety personnel in industry. Courses are available both on a regular basis and as customized training for any organization upon request.

AUCTIONEERING CERTIFICATION PROGRAM
In order to sit for the PA State Auctioneer Licensing Examination, an individual must either serve as a licensed auctioneer apprentice or successfully complete an approved course of study. In January 1991, the "Auctioneering Certification Program" was confirmed by the Pennsylvania Auction Board as such a course of study.

This program has been designed to provide in-depth knowledge of the techniques, procedures and principles of communication, appraisal, management, marketing and law necessary to pass the licensing exam. The ten-week program runs two times a year, every fall from September through December and every spring from April through June. Specific course schedules can be obtained from the Office of Workforce and Economic Development/Community Education.

CAREER PREPARATION

Short-term vocational instruction courses are offered in Business and Healthcare. Courses take from three weeks to twenty-four weeks to complete. All courses are specifically designed to prepare adults for entry or re-entry into the job market. Students must have their high school diploma or GED to enter the program.

Certificate programs offered through the Career Preparation program are Administrative Assistant, Certified Nurse Aide, Medical Office Assistant, Medical Receptionist, Medical Secretary, Medical Transcriptionist, Dental Assistant, Veterinary Assistant, Junior Accountant, Home Health Aide, Phlebotomy and Career Refresher Workshops (This option allows the student to select from a variety of courses on a space available basis.) Upon successful course completion, students will obtain a certificate.

Training is free to individuals meeting the eligibility requirements established by the Berks County CareerLink Office, the Office of Vocational Rehabilitation or through the Berks County Public Assistance Office. Current guidelines also allow the public to enroll.

Educational Outreach Programs

21ST CENTURY COMMUNITY LEARNING CENTERS

The 21st Century Commnity Learning Centers Program (CCLC) is a federally-funded collaboration between RACC and the Reading School District. The program provides after-school and summer programming for over 900 at-risk elementary and middle school students at 11 local school and neighborhood churches.

The CCLC program provides homework tutoring, intensive Reading and Math instruction and/or remediation, and over 50 enrichment classes such as Karate, Drama, Introduction to Business, Ecology and Computer Exploration.

Students in the program enjoy educational field trips and a daily hot meal. Community agencies partner with the sites to provide additional cultural, social amd recreational activities for the students and their families. Adult Education classes such as ESL, Spanish GED and Workforce Training, are offered to parents at no charge.

Enrichment Programs

SHORT UNIT PROGRAMS: *"Moonlighting"*

Short unit evening courses are offered in the fall, winter, and spring at Reading High School, Wilson High School, Exeter High School, Muhlenberg High School, Conrad Weiser High School, Hamburg Area High School and Governor Mifflin High School. Arts and crafts courses include painting, quilting, calligraphy, woodworking, and photography. Students learn typing, accounting, computer, and supervisory skills in the career development area. Assertiveness training, positive self image, and communication skills are included in the human development component. Aerobics, yoga, weight training and social dance are among the sports and physical fitness programs. Approximately 350 classes provide instruction for 3,500 students in the *"Moonlighting"* short unit program each year.

SATURDAY COLLEGE

Saturday College, an educational alternative to weekday and evening instruction, takes places every fall in October and November and every spring in April and May on six consecutive Saturdays at Reading Area Community College.

The four divisions of Saturday College are: Super Saturday Kids' College, enrichment programs for students in grades 1 through 12; Early Childhood Programs for ages 3-6; Saturday Seminars for Adults, a variety of arts, crafts, health, fitness and language offerings and Saturday Short Unit Computer and Enrichment Programs, a core of six-week certificate courses designed to enhance skills and lead to professional advancement.

KIDS' COLLEGE SUMMER STUDIES

Kids' College Summer Studies runs for two weeks each year at the College. Enrichment courses in the arts, sciences and computers are offered for children in grades one through twelve. Community resources and outside facilities are utilized for field excursions.

Cultural Programs

Illustrated Lecture Series

The Illustrated Lecture Series presents the beauty and wonder of the world through the multi-media presentations of some of the world's most talented filmmakers. The films related to geography, anthropology, and international life styles are your passport to adventure. The Series, initiated in 1914 by the Reading School District, is now sponsored by Reading Area Community College. The lectures are held in the auditorium of Reading Senior High School, 13th & Douglass Streets, Reading. Season tickets are available.

Meet The Artist

The *"Meet the Artist"* invitational series was initiated in 1978 to enhance the cultural atmosphere of the College for the students, to provide an opportunity for regional visual artists to exhibit their work, and for the general public to participate in the venture as viewers and appreciators. Efforts are made to present solo or group exhibitions on a monthly basis (September through May). Receptions are planned for the public to meet the artist during each exhibit from 2-4 p.m. A *"gallery talk"* by the artist may be included at the reception or during the exhibition.

Literacy Programs

Adult Basic Education (A.B.E.) Program

Adult Basic Education classes offer basic reading and math instruction to adults functioning from a second grade level to those reading on an eighth-grade level. All materials used in these classes are adult-oriented and address pertinent daily skills. Classes are free.

English for Speakers of Other Languages
(E.S.L.) Program

The English for Speakers of Other Languages program offers speaking, reading and writing skills to non-English speaking adults. Classes are offered at beginning, intermediate and advanced levels. Classes are free.

General Educational Development (G.E.D.)
Preparation Program

To prepare a student for the G.E.D. test of high school equivalency, the Reading Area Community College offers preparation classes, free of charge, to adults in our community. These classes meet both days and evenings at different locations throughout the county. An annual graduation is held in June. Tutors are available to help students achieve success in their class work.

General Educational Development Test (G.E.D.)

The G.E.D. test is administered at Reading Area Community College several times each month. Pennsylvania residents (adults 18 years and older, as well as 16 and 17 year old participants meeting specific qualifications) are eligible to take the eight-hour exam. All registrations for the G.E.D. test are completed in person at RACC's Schuylkill Hall (third floor). Payment is required at the time of registration.

To earn a G.E.D., candidates must demonstrate a specific level of competency in the following five subject areas:

- Writing Skills • Social Studies • Science
- Reading Skills • Mathematics

Everyone who successfully meets the scoring requirements established by the state of Pennsylvania will receive a High School Equivalency Diploma from the Department of Education.

This diploma is accepted, by law, as a legitimate high school diploma by business, industry, colleges, and most branches of the armed services.

STANDARD EVENING HIGH SCHOOL

Students may enroll in the Standard Evening High School operated at Reading Senior High School, 13th and Douglass Streets, to earn a diploma issued by the Reading School District. Students receive credit for previously completed high school courses. Classes are taught Monday and Tuesday, and Wednesday and Thursday evenings from September to May. Graduates of the Standard Evening High School are awarded diplomas in the school's annual commencement exercises.

Courses which the Standard Evening High School offer each academic year include clerical skills, typing, math, algebra, social studies, home economics, English, languages, art, law, consumer economics, health, biology, advanced biology, and chemistry.

BERKS COUNTY LANGUAGE BANK SERVICES

Reading Area Community College is pleased to maintain a Language Bank in the Office of Workforce and Economic Development/Community Education for interested individuals, agencies, businesses, school districts, colleges, hospitals, and legal counsels.

Language Bank:
- Maintains files and resumes of over 25 resource people fluent in English and at least one other language - volunteers and professionals.
- Conducts a referral service for interested clients.
- Provides bilingual translators, tutors, teachers, and communication aides.
- Offers assistance in over 15 languages.

EVEN START FAMILY LITERACY PROGRAM

This family program, operated in conjunction with the Reading School District, is for parents and their children, 3 through 7 years. Parents can learn English or study for their GED while their children are in an early childhood class right next to them. Parents also learn parenting skills and different activities to do with their children which will help the children succeed in school. The program takes place mornings and evenings at three sites in the City of Reading.

CONSIDER THESE ADDITIONAL BENEFITS

- We are local and we are here when you need us.
- Your employees can be trained individually or together as a team.
- RACC remains on the cutting edge as a provider of continuing education for adults.
- Programs can be developed to suit any topic or training need.
- Programs are structured for all organizational level - from entry level positions to top management.
- Continuing Education Units (C.E.U.'s), certificates of training and credits are offered.

CREDIT

In addition to the C.E.U., college credit is available for many courses offered through Workforce and Economic Development/Community Education. Credits earned may be applied to a variety of RACC's associate degree and certificate programs or transferred to other colleges.

Take a look at the following list to discover the realm of occupations served and the services provided by RACC's Workforce and Economic Development/Community Education Division. Remember! If you cannot find what you are looking for, our staff can develop a program to suit your needs. Give us a call!

SKILLS & OCCUPATIONS SERVED BY RACC'S WORKFORCE AND ECONOMIC DEVELOPMENT/COMMUNITY EDUCATION DIVISION

Senior Leadership & Workforce Development
Tools for Profit™
Creating Alignment™
Executive Coaching - Leadership
    Development
Project Management
Engineering Systems
Lean Thinking
Kaizen
Six Sigma
Practical Rheology
Extrusion of Engineering Plastics
PVC Rheology & Processing
Process Improvement
Reverse Logistics
Critical Thinking & Problem Solving
Root Cause Failure Analysis
Reliability Centered Maintenance
Total Predictive Maintenance (TPM)

Manufacturing Technology
Technical Core Modules
Workplace Readiness
Workplace Communications
Workplace Mathematics
Workplace Physics
Blueprint/Graphics for the Workplace
Microcomputers in the Workplace
Foundations of Quality
Technical Specialty Modules
Industrial Controls (Basic & Advanced)
Troubleshooting Industrial Control
    Systems
Programmable Controllers (Basic &
    Advanced)
Electrical Control Wiring Systems
Power Distribution Systems
Electrical Motors (AC/DC)
Process Control
Electronic Drives
Plastics Technology
    Practical Applications for Melt
        Rheology in Polymer Processing
    Extrusion of Engineering Plastics for
        Manufacturing & Process Engineers
    PVC Rheology & Application in
        Extrusion
    Understanding Plastics Materials for
        Extrusion & Moldiing
Robotics and Computer Programs
Manufacturing Process
Computer Control Technology
Computer Integrated Manufacturiing
Quality Assurance
PC Based Control
Motion Control

Network Fundamentals
Human Machine Interface
Troubleshooting Practices
Hybrid and Batch Control
Integration Standards (S88/S95)
Specialized Control Operations (Vision,
    Bar Code, RFID, etc.)
Mechatronics
Safety and OSHA

Information Technology Certifications
Microsoft Office User Specialist (MOUS)
Microsoft Certified Application
    Developer (MCAD)
Microsoft Certified Systems Administrator
    (MCSA)
Microsoft Certified Systems Engineer
    (MCSE)
A+ Core Hardware Service Technician
    Certification
A+ Operating System Technology
    Certification
Net+ Network Certification
Net+ Cabling Certification
Security+ Certification

Information Technology
Software Training
Microsoft Windows XP
Microsoft Office Suite
Microsoft Word
Microsoft Outlook
Microsoft Excel
Microsoft Access
Microsoft PowerPoint
Microsoft Publisher
Microsoft FrontPage
Adobe Photosop
QuickBooks Pro
Macromedia Dreamweaver
Visual Basic
C, C++
Java, JavaScript
.NET
Websphere
COBOL
DB2
SQL
SQL Database
Oracle Database
Website Design and Maintenance
Hardware Training
Practical Network Cabling Systems
Wireless Networking Technologies
Voice Over IP (Internet Protocol)

Workplace Readiness
Communication Skills/Personal
    Effectiveness
Personal Effectivenss/Team Approach
Workplace Mathematics
Computer Concepts, Applications
    and Skills
Refresher Math

Wokplace Literacy
Literacy (ESL/GED)
Math Skills
Communication Skills

Health Care
ACLS
Basic Physical Assessment Course
Clinical Updates
CPR
Interpersonal Skills
Intravenous Therapy
Management Skills
PALS
Refresher Courses for Registered
    Nurses & Licensed Practical Nurses
Trends & Issues in Health Care
Wellness Programs

Public Safety
CPR
Emergency Medical Services
Fire Training
Hazardous Materials
Municipal Officers Training
    School (MOTS)
Police In-Service Training &
    Career Development

Vocational/Technical
Air Conditioning & Refrigeration
Auto Body Repair
Blueprint Reading
Bricklaying
Cabinetmaking
Computer Technology
Electrical Apprentice
Electricity
Home Remodeling
Landscaping and Gardening
Machine Shop
Plumbing
Small Engine Repair
Upholstery
Welding (Oxyacetylene
    & Electric Arc)

Philosophy, Vision & College History

PHILOSOPHY

Reading Area Community College believes in the educational enrichment of each citizen and the economic and cultural development of the community we serve. Therefore, we are committed to providing diversified educational opportunities for citizens to develop their maximum potential and realize their self-worth and dignity.

The College believes that the responsibility of education in a democracy is to extend to all citizens high-quality programs containing a strong general educational component for personal development and quality academic programs that are responsive to the changing world.

The College believes that the educational process includes programming that supports and informs students about the nature and purpose of available curricula, about their own personal and educational qualities, the nature of current employment opportunities, and vibrant, aesthetic and cultural values inherent in a full life. The College believes in challenging students to reach high expectations and goals based on specified learning outcomes in the belief that students learn best by active involvement in the learning process. Therefore, we encourage that creative flow within both faculty and students.

Finally, the College believes that we have a responsibility to contribute to the growth of the community and to encourage its development. Thus, Reading Area Community College devotes its resources as an educational, recreational, civic and cultural center to the community.

VISION STATEMENT

Reading Area Community College reaffirms its commitment to provide access to quality educational experiences and training opportunities for all citizens of Berks County. Reading Area Community College envisions a society which continues to experience rapid technological change, increase demographic diversity and universal acceptance of the global nature of our economy. This information-based society requires higher levels of educational attainment and job skills training in order for individuals to remain productive members in society and in the workplace.

The College (operating under an open admissions policy) fulfills its mission by providing high quality instruction and services to meet the educational and training needs necessary for a healthy Berks County community and a strong economy. The College's supportive environment provides personal attention to individual student needs. Our staff is willing and able to spend the necessary time to ensure both access to and success in lifelong learning opportunities to people from diverse backgrounds. The College develops its human, physical and financial resources to ensure its primary role as a provider of educational, technical and cultural experiences for our community. The College takes a leadership role in establishing partnerships with business and industry, local governments, community organizations and other educational institutions to advance the economic development and cultural enrichment of the city, the county and the region.

COLLEGE HISTORY

In 1963, Pennsylvania passed legislation authorizing the development of a statewide system of comprehensive community colleges. The legislation states that community colleges should be locally controlled, responsive to the educational and training needs of the areas they serve, geographically accessible to students and have low tuition.

In September of 1970, the Board of Directors of the Reading School District voted to act as sponsor of a community college and authorized that an application and proposed plan for establishing and operating the new institution be submitted to the Pennsylvania State Board of Education. At its January 15, 1971 meeting, the State Board of Education approved the application permitting the Reading School District to sponsor Reading Area Community College. The sponsor appointed an eleven-member Board of Trustees whose responsibility was to bring the college into existence and supervise its administration. Classes were held for the first time on October 13, 1971, with an enrollment of 265 students.

Initially students attended classes at many locations throughout Reading. In 1977, the college purchased the former Holiday Inn at Second and Penn Streets. After extensive renovations to the building, administrative offices and credit programs were moved to the present riverfront campus in the fall of 1978.

By the fall of 1988, enrolled credit students numbered 1640 and more space was needed. RACC purchased 10 acres of land between its campus and the Schuylkill River that was used primarily for parking. In June of 1989, the East Shore Office

Building, now named Penn Hall, was purchased to serve the growing student body that expanded to 3,231 credit students by the fall of 1994.

Appoximately 12,000 non-credit students are also served each year. Classes are conducted at Boyertown, Exeter, Hamburg, Muhlenberg, Reading and Wilson High Schools, the Reading-Muhlenberg Vocational Technical School in Berks County and at several other community sites.

As the college grew, the resources of a single sponsoring school district became inadequate to sustain the required expansion. The majority of students lived in Berks County, outside of the Reading School District. The Berks County Board of Commissioners took the initiative to study the need for a broader base of financial support for RACC. In February of 1990, the commissioners appointed a fifteen-member Citizen Task Force to study the sponsorship issue. In their report presented to the commissioners on September 13, 1990, they stated, "The current situation, where one school district acts as sponsor, is unique in Pennsylvania, is contrary to economic development trends over the life span of the community college, and is clearly untenable in today's economic climate." In conclusion, they stated "there is a compelling case for sole sponsorship (of the college) by the county government and the required financial commitment by the county would be reasonable, cost effective and not overly burdensome to the taxpayers." At the October 4, 1990 meeting of the Berks County Board of Commissioners, they voted unanimously to sponsor Reading Area Community College effective July 1, 1991.

In 1992, Reading Area Community College launched its first capital campaign to secure private funds for a new library. The campaign goal of $1,750,000 was exceeded and $2,739,000 was raised for the project. Those gifts enabled the college to go beyond the original basic facility and include additional educational equipment and laboratories. With the matching funds provided by the Commonwealth of Pennsylvania, a $7.54 million library was constructed.

The Yocum Library, overlooking the Schuylkill River, opened in March of 1996. It includes conference rooms and a humanities center. This distinctive addition to the Reading skyline serves as the landmark building that marks the gateway to the city.

Penn Hall, formerly the East Shore Office Building, was totally renovated in 1995. It houses the Division of Health Professions and Business Division classrooms and laboratories. Its state of the art classrooms and computer equipment prepare students to succeed in the automated workplace.

The Student Union Building, now renamed the Gust Zogas Student Union Building, had been a Zieger & Sons Florists facility. It was opened in the fall of 1996. Currently the bookstore, student government and newspaper offices, a wellness center and a student lounge are located there.

Berks Hall, the original campus building, was remodeled in 1996. The finished project incorporates landscaped pathways, lighting and outdoor lounge areas that transformed Reading Area Community College into an attractive, city-based campus. In late 1996, the college purchased a 2.4-acre tract of land between the Penn Street Bridge and the Front and Washington Streets parking garage from the City of Reading for a future building project. Also in 1996, the Reading Area Community College celebrated its 25th Anniversary.

In the fall of 2002, RACC enrolled a record 3,800 credit students. 2002 was a year of change. Not only did the college have to adapt to a record-number of students, but also the president of 17 years, Dr. Gust Zogas, announced his retirement as of December 31. The Board of Trustees named Dr. Richard A. Kratz, former vice president/dean of academic affairs, the fourth president of RACC.

ADMINISTRATION

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THEODORE BASSANO, Vice-President of Business Services/Treasurer; M.S.Ed., Elmira College; B.A., State University of New York at Binghamton

DIANE M. MARABELLA, Vice-President for Enrollment Management/Student Services; M.Ed., B.S., Kutztown University

ACADEMIC DIVISIONS

Business

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Health Professions

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SUSAN DUBY, Instructor; MFA, Vermont College of Norwich University

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KEVIN MACKLEN, Manager, Custodial Services
R. ALAN KRUMANOCKER, Electrician
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EDWARD BROWN, General Maintenance Worker 2
DEBBIE CASILLAS, General Maintenance Worker 2
DANIEL KAMANU, General Maintenance Worker 2
RAYMOND KNARR, JR., Security Guard
JOSE PAGAN, General Maintenance Worker 2
DWAYNE REBER, General Maintenance Worker 2
RAMON REYES, General Maintenance Worker 1
DONALD SHUKER, General Maintenance Worker 1
ROBERT TARNOSKI, General Maintenance Worker 2
LINDA TORRES, General Maintenance Worker 2
JOSEPH WIELAND, General Maintenance Worker 2
LISA WINGER, General Maintenance Worker 2

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JANET GARRISON, Library Assistant

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Stacia Layser, B.S.
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Ronald Maras, A.A.S.
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Jeanine Metzler, B.B.A.
Charles Milch, M.S.
Curtis Minich, M.S., M.A.
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Andrew Wenger
Philip Wert
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Barry Whitmoyer
Lynne Williams
Basil Wiszczur, M.A.

Continuing Education Adjunct Faculty

The Continuing Education Division of the College serves approximately 10,000 to 12,000 non-credit students each year by offering a wide variety of courses from many different disciplines. The adjunct faculty who teach for this Division have diverse educational backgrounds and experiences which qualify them for their position. Since there are so many courses offered each term, it would be impossible to list an accurate register of the staff members; however, a current roster of the instructors may be obtained from the Department of Continuing Education prior to the start of each session.

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Campus Map

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