Kirtland Community College

Catalog **2010-2011**

WELCOME

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Information in the catalog and class schedule can change at any time without notification. Check the class schedule for the most current information. The catalog cannot be considered as a contract or agreement between the individual student and Kirtland Community College or its administrators.

It is the policy of Kirtland Community College that no person shall, on the basis of race, color, religion, national origin or ancestry, age, sex, disability, physical proportions, sexual orientation, marital status, or genetic information be excluded from participation in, be denied the benefits of, or be subjected to, discrimination during any program, activity, service, or in employment. For information, or to register a grievance, contact the Director of Human Resources, Room 226, ADM Building, 10775 N. St. Helen Rd., Roscommon, MI 48653, 989-275-5000, ext. 271 or 239.

VISION, MISSION, AND GUIDING PRINCIPLES

Kirtland Community College Vision

Kirtland Community College provides open access to education, as well as cultural opportunities, to enrich the lives of the people in Northern Michigan.

Kirtland Community College Mission

Kirtland offers higher education in a student-focused environment, providing transfer and career technical programs; developmental studies; workforce development; personal enrichment and cultural opportunities. We focus resources on our local service area, while maintaining a welcoming climate for our neighbors in Northern Michigan.

Kirtland Community College Guiding Principles

Student learning is Kirtland's commitment-

1. We use continuous-improvement processes to ensure currency and relevancy of programs, services, and facilities.
2. We strive for consistent use of appropriate data in all decision making.
3. We ensure that all decisions are effectively communicated and contribute to student success.
4. We are open and welcoming to all, while recognizing a special responsibility to young adults.
5. We recognize the value of our employees by striving for a high quality of work life and providing opportunities for professional development.
6. We participate in community partnerships, based on shared values and mutual goals, with a focus on K-12 and Economic Development.
7. We seek optimum size based on community needs, available resources, financial responsibility, and College capabilities.

ASSURANCE OF QUALITY

Kirtland Community College is committed to graduating students of high quality, fully capable of performing the skills specified in the student's major, and in the area of the college's general degree requirements. Kirtland Community College offers assurance to its students, prospective employers, and transferring institutions that individuals holding degrees or certificates are fully capable of competent performance.

Transferring students who meet the admission criteria of the four-year college or university would be able to perform at a level equal to or better than those students who were admitted as freshman at the transferring institution.

The college will, upon recommendation from the institution to which the student transferred, permit the student to retake any course or courses previously completed at Kirtland in areas deemed deficient. This retake shall result in no tuition or fee charges for the student. If a retake at Kirtland is not preferred and the student shows proof of enrollment in an equivalent course at another college, the college will refund the tuition and fees paid by the student for the Kirtland course or courses in question.

Non-transferring students who earn a degree or certificate can be expected to perform competently in the area in which they were instructed. Any employer who views a Kirtland Community College graduate as not possessing appropriate entry-level skills and can specify such deficiencies may request remediation. The student will be permitted to retake a specified course or courses without an additional tuition or fee charge. If a retake at Kirtland is not preferred and the student shows proof of enrollment in an equivalent course at another college, the college will refund the tuition and fees previously paid by the student for the Kirtland course or courses in question. The college recognizes that unused skills decay rapidly. The assurances offered herein are made for individuals who transfer or gain employment within a year of receiving a degree or certificate and are limited to courses numbered 100 or above completed at Kirtland Community College with a C grade or better. Furthermore, this assurance does not apply toward performance on licensing or civil service examinations. Finally, Kirtland Community College graduates must have initiated their program of study after May 1989.

Kirtland Community College graduates who are eligible to apply for compensation in accordance with Kirtland's Assurance of Quality policy must have their employer or transferring institution submit a completed Assurance of Quality Compensation Request form to the student services office.

GENERAL EDUCATION

Kirtland Community College is committed to the belief that all graduates should possess the skills and breadth of knowledge necessary to realize their potential to live full and productive lives. This belief forms the foundation of Kirtland's commitment to the process and goals of general education.

General education is the heart of the educational experience at Kirtland. General education seeks to make people intellectually well-rounded, whole, and complete. It comprises that core of knowledge and skills that educated people need regardless of what career or vocation they enter.

The pursuit of general education provides learners with the broad intellectual foundation necessary for continuing growth to achieve their potential and become successful lifelong learners in a changing world. General education provides the common knowledge and skills that enable us to understand one another, interact, collaborate to solve problems, and build an effective community.

Kirtland Community College seeks to achieve the aims of general education in three ways:

1. **The General Education Core**
   Every degree-seeking student completes a core of courses that nurture foundational competencies in communication, scientific inquiry, mathematical reasoning, cultural and global awareness, and other areas.

2. **General Education Across the Curriculum**
   All of Kirtland's degree courses, regardless of discipline, are designed to build upon, apply, and continue to nurture the development of the knowledge and skills acquired in the general education core.

3. **Extracurricular Programs and Events**
   Kirtland seeks to extend, foster, and enrich the general education experience for its students through a variety of extracurricular programs and events, such as those listed below:

   Kirtland Art Gallery Controlled Burn Reading Series Performing Artists Series
   Cultural Events Global Awareness Program Service Learning Program
   Center for the Performing Arts Kirtland's Warbler Festival Student Writing and Art Competitions
   Community Education Program Kirtland Youth Theatre

   These and other cultural activities and programs at Kirtland help to foster intellectual curiosity, cultural enrichment, communication, critical thinking, diversity, lifelong learning, social and cultural awareness, and other general education goals.

COLLEGE OVERVIEW

ESTABLISHMENT OF THE COLLEGE

On March 7, 1966, in accordance with provisions of Public Act 188 of the Michigan Public Acts of 1955, Kirtland Community College was created by a vote of the electorate from six local K-12 school districts (Crawford-AuSable, Fairview Area, Roscommon Area, Houghton Lake, Mio-AuSable and West Branch-Rose City). With this approval, the largest Michigan community college district was formed. The college's district totals 2,500 square miles and consists of all or part of nine counties. Approximately 69,000 people reside within the college's district.

LOCATION

Kirtland Community College, located close to the geographic center of the college's district, is accessible by F-97 from the north and south and by M-18 to County Road 603 from the west. The location is very rural and is approximately 170 miles north of Detroit, Michigan. Kirtland is surrounded by the following communities (approximate distances from the college are listed):

Grayling..... 30 miles
Fairview..... 40 miles
Frederic..... 35 miles
Houghton Lake ..... 30 miles
Mio……..…30 miles
Roscommon…..……..….11 miles
Rose City……..……..…….35 miles
St. Helen……...……..……...8 miles
West Branch…...……..25 miles

ACCREDITATION

Kirtland Community College is accredited by The Higher Learning Commission, a commission of the North Central Association of Colleges and Schools at 30 North LaSalle Street, Suite 2400, Chicago, IL 60602 (800-621-7440). The college also holds membership in the Michigan Community College Association and the American Association of Community and Junior Colleges.

The Higher Learning Commission of the North Central Association of Colleges and Schools granted Kirtland Community College status as candidate for accreditation in 1972, and the college has been accredited as an associate degree-granting institution since 1975.

Students wishing to view documents pertaining to the accreditation and licensing of Kirtland Community College should submit their request in writing to the President's office. The request will be processed within five (5) business days of receipt. Any request requiring the copying of more than 50 pages will be assessed a copy fee of .10 cents per page.

CALENDAR
Kirtland operates on a semester calendar. There are two 15-week semesters, starting in late August and mid-January. A shorter session is offered during the summer and begins in May.

DEGREES AND CERTIFICATES
Kirtland offers over eighty occupational (technical career oriented) certificate and degree programs and eleven transfer degree programs. Transfer programs are designed for students planning to complete up to half of a bachelor's degree prior to enrollment at a university.

INTERCOLLEGIATE ATHLETICS
The mission of the athletic program is to provide men and women with the opportunity to learn and grow as a result of participating in a high-quality intercollegiate program. The program also attempts to improve student life and, in turn, improve the recruitment and retention of students. The athletic program also seeks to increase community involvement with Kirtland by providing sports entertainment at a level that previously has not been offered in the Kirtland region.

Kirtland competes in intercollegiate athletics as a member of the Eastern Conference of the Michigan Community College Athletic Association. Kirtland also competes in the National Junior College Athletic Association as a member of Region XII (Michigan, Ohio, and Indiana). The Kirtland Firebirds compete in men's and women's basketball, men's and women's golf, and men's and women's cross-country. For more information, call the athletic director's office at 989- 275-5000, ext 385.

M-TEC[SM] AT KIRTLAND GAYLORD
Michigan Technical Education Center

The mission of the M-TEC[SM] is to provide educational programs and services to individuals in preparation for employment. In addition, through workforce development, business and industry partners in the Northern Michigan region and their employees are provided with educational opportunities specifically designed to upgrade and/or enhance job skills necessary to compete in a local, state, national, and global economy.

Programs and Services
Programs and services have been developed in response to locally and regionally defined needs as determined by representatives of business and industry. Emphasis is placed on providing programs that lead to preparation for employment. To ensure that graduates are well prepared for entry into the workforce, special emphasis is placed on the ongoing assessment of student learning as each individual progresses through the various courses within each program.

Core Curricula
The M-TEC[SM] serves postsecondary students who are interested in apprenticeship training, postsecondary degree programs, and job skills development. The specific programs at the M-TEC[SM] include the following:

Certificate of Completion	Associate in Applied Science
Practical Nursing – Level 1	Cardiac Sonography
Carpentry	Carpentry
Electrical Technology	Electrical Technology
Heating/Ventilation/AC/Refrigeration	Heating/Ventilation/AC/Refrigeration
Industrial Maintenance	Industrial Maintenance
Outdoor Power Engines	Outdoor Power Engines
Welding and Fabricating	Welding and Fabricating

Workforce Development

Workforce development programs serve specific employers in the region and their current employees who are seeking job skill upgrades and/or personal growth. A key component of the mission of the M-TEC is to provide to business and industry partners educational opportunities through customized training and contracted education. These educational opportunities are specifically designed to upgrade and enhance the job skills necessary to compete in a local, state, national, and global economy. Workforce development courses are custom designed to fill a specific need and include but are not limited to: welding, manufacturing, construction, and information technology; human resources; leadership and supervisory skills; and MIOSHA safety training and business practices. For additional information about workforce development educational opportunities, please call 989-705-3601.

Placement Testing

Compass tests are used to determine a student's placement in English, reading, and math. WorkKeys^{R} tests are used to assess the core competency levels of reading, math, locating information, and writing. Students seeking a certificate of completion or associate degree are required to take one or both of these tests. For more information, please call 989-705-3600.

Career Readiness Course Offerings

Individuals with identified learning needs will enroll in custom-designed courses provided through the use of PLATO^{R} Software. PLATO^{R} Software has been designed to interface with the WorkKeys^{R} test and will automatically navigate a student to learning modules designed to meet their individual learning needs.

Dual Enrollment

Kirtland Community College partners with area high schools to provide career and technical dual-enrollment opportunities to qualified high school students. For additional information, please call 989-705-3605.

Program Delivery

The M-TEC^{SM} delivers programs and training through traditional classroom delivery and open learning, allowing the student to use printed materials, computer-aided instruction, and hands-on training activities to support self-directed, instructor-guided, student-centered learning. The emphasis on the open learning environment at the M-TEC^{SM} promotes flexible scheduling and individualized learning opportunities to better meet the needs of the student, as well as employers in the region.

The M-TEC^{SM} Facility

Construction of this facility began in July 2000 and was completed in time to begin offering a full complement of programs and services beginning in January 2002. The M-TEC^{SM} facility has been designed *by* business and industry *for* business and industry. Using the expertise and input of local and regional manufacturing, building trades, and technology professionals, architects and engineers have created a 28,000 square-foot facility capable of supporting the current and future workforce development training needs of the region.

The M-TEC^{SM} facility contains both a precision tool and general manufacturing lab, a construction technology lab, a welding lab, a computer- aided drafting and manufacturing design lab, a nursing lab, and a sonography lab as well as classrooms that support general and computerized instruction. A Learning Resource Center is available to students enrolled at the M-TEC^{SM} as a result of the partnership with the University Center at Gaylord. For information, contact the M-TEC^{SM} at Kirtland-Gaylord at 989-705-3600.

Residency Rules

The burden of proof of residency is the student's responsibility and acceptable documentation must be provided to the admissions office prior to the first day of the semester in which the residency status is to be applied. Retroactive residency adjustments will not be considered.

Kirtland Community College will perform ongoing verification of residency information. Students who have misrepresented information or have falsified documents may have to repay tuition, verify back records, or may be subject to disciplinary action by the College. If a student has mail returned to the college, a hold code will be placed on his/her record and the student must verify his/her residency at the Admissions Office

In-District Residency

A new student planning to attend classes at the M-TEC must provide proof that he/she has lived in Otsego County or the Kirtland Community College district prior to the first day of the semester of attendance at Kirtland.
Acceptable proof: driver's license, verifiable rent receipts (if rent receipts are not available, a notarized letter from the landlord will be accepted), a dated lease agreement, voter's registration card, place of residence property tax receipt, Secretary of State identification card. Verifiable rent receipts must contain all the following information: the address of the property being rented; the date of payment; signature, address and phone number of the landlord.

A returning in-district student will continue to be considered in-district if he/she can prove he/she continues to live in Otsego County or the college district.

Out-of-District Residency

A new student planning to attend classes at the M-TEC will be considered out of district if (s)he can prove residency within Michigan prior to the first day of the semester of attendance at Kirtland, but cannot prove in-district residency.

Acceptable proof: driver's license, verifiable rent receipts (if rent receipts are not available, a notarized letter from the landlord will be accepted), a dated lease agreement, voter's registration card, place of residence property tax receipt, Secretary of State identification card. Verifiable rent receipts must contain all the following information: the address of the property being rented; the date of payment; signature, address and phone number of the landlord.

A student who resides outside Otsego County or the Kirtland district can be assessed an in-district tuition rate if (s)he provides the college with tax receipts showing tax payments to the college, as long as the property is owned by the student or the student is a dependent of the person who owns the property.

STUDENT PROFILE (2009 Fall Semester)

Total enrollment: 2,478

Student Gender:

Males	46%
Females	54%

Student Age Distribution:

24 and under	42%
25 to 39	32%
40 to 59	22%
60 and older	3%
Unknown under	0%

County of Residence:

Crawford	12%
Ogemaw	18%
Oscoda	9%
Roscommon	23%
Other	39%

Student Credit Hour Load:

Personal Interest	17%
Part-Time: 1-11.99 credit hr	43%
Full-Time: 12 & over credit hrs	40%

Student Status:

FTIAC (first time in any college)	16%
Returning to KCC	70%
First-time Transfer	7%
Guest	0%

Student Program Areas:

Criminal Justice	6%
Health Careers	33%
Transfer	17%
Personal Interest	18%
Other	26%

2010-2011 COLLEGE CALENDAR

Approved by Board of Trustees. Dates are subject to change. Please check the current class schedule.

FALL 2010 SEMESTER

Fall 2010 Semester Begins	Saturday	August 21, 2010
Labor Day Break	Saturday – Tuesday	September 4 – September 7, 2010
Thanksgiving Break	Wednesday – Sunday	November 24 – November 28, 2010
Fall 2010 Semester Ends	Sunday	December 12, 2010

WINTER 2011 SEMESTER

Winter 2011 Semester Begins	Saturday	January 8, 2011
Spring Break	Monday – Sunday	February 28 – March 6, 2011
Easter Break	Friday – Sunday	April 22 – April 24, 2011
Commencement	Friday	April 29, 2011
Winter 2011 Semester Ends	Sunday	May 1, 2011

NOTE: Dates are subject to change. Please check the current class schedule.

DIRECTORY OF SERVICES

MAIN SWITCHBOARD **989-275-5000**

Offices **Extension**

ADMISSIONS **284**
This office is responsible for admission of all new students, new student recruitment activities, and admissions advising.

BOOKSTORE **273**
Located in the student center, the bookstore provides textbooks, reference books, classroom supplies, clothing, gift items and souvenirs, some snacks, and miscellaneous sundries.

CAFETERIA **268**
Located in the student center and is open Monday - Friday. Hours and specials are posted in the student bulletin.

CAREER AND EMPLOYMENT SERVICES **280**
This office helps students research specific careers and career opportunities. Assistance with job search strategies, résumé writing, and interviewing techniques is also provided.

COUNSELING OFFICE **280**
Michigan-licensed professional counselors are available in the student services office in the administration center to provide Kirtland students with academic, personal, and career counseling. The counseling staff will make use of a variety of test instruments when they work with students in order to help them learn more about their academic abilities, interests, personality type, and current level of self-esteem. The counseling process, aided often by such testing information, can help students make more informed personal, academic, and career decisions.

DEPARTMENT OF PUBLIC SAFETY **355**
The Department of Public Safety is located in room 127 in the administration center. Office hours are 8 a.m. to 11 p.m., Monday through Friday. Public Safety services include the following:

- After-dark escort service from buildings to vehicles
- Response to criminal behavior complaints
- Preventative workshops/seminars on drug/alcohol awareness, rape awareness, use of weapons, etc.
- The addressing of parking and traffic violations
- Provision of vehicle emergency assistance (keys locked inside vehicle, jump-starting vehicle, etc.)

FINANCIAL AID **257**
This office helps students apply for financial assistance including grants, loans, scholarships and student employment.

LIBRARY **246**
The library is open to the general community as well as all students. A variety of services are available, including full reference service, term-paper counseling, interlibrary loan, and online search service. See library for library hours and more information.

SERVICES FOR STUDENTS WITH DISABILITIES **280**
This office assists students who need supportive services to succeed in their college courses. Examples of services include scribes, note-takers, readers, textbooks on tape, and sign language interpreters.

INSTRUCTION OFFICE **270**
This office is located in the instructional center and is responsible for instructional matters that include the class schedule, cancellation of classes, selection and supervision of career and technical faculty, and related grade appeals.

RECORDS/REGISTRATION OFFICE **251**
The responsibilities of this office include course registrations, schedule adjustments, program changes, enrollment and graduation verifications, grade reporting, official graduation audits, maintain permanent academic records, issue academic transcripts upon student request, and transfer credit evaluations.

PHONE NUMBERS TO KNOW

MAIN SWITCHBOARD **989-275-5000**

Accounting 262, 337, 238
Admissions 284
Allied Health Lab 421
Auditorium 401
Automotive Lab 215

Biology Lab 417
Boardroom 314
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Business Conference Room 292
Business Office 239

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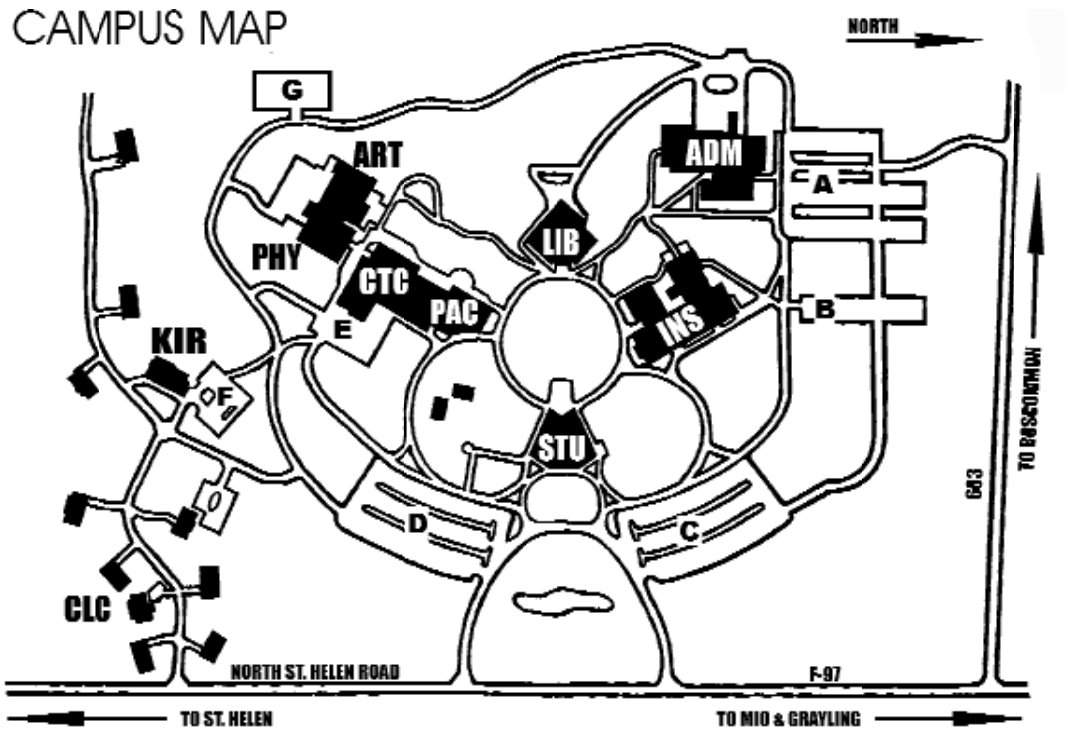
COLLEGE MAPS



A - H - Parking lots.

ADM - Administration Center - Administrative offices; Accounting; Athletics; Business Conference Room; Business Office; Career & Employment Services; Computer Labs; Criminal Justice Program offices; DEV classrooms; Disability Services Office; Financial Aid Office; FLEX Lab; General, computer, and multimedia classrooms; Institutional Services; President's Office; President's Board Room; Records/Registration Office; Special Populations Office, Student Services (including admissions, counseling, placement testing); Testing Center, Student Newspaper Office.

ART - Fine Arts Center - Art Department Office; Art Gallery; Art lab; Sculpture lab.

CLC - Children's Learning Center

CTC - Career Technology Center - Automotive lab; Cosmetology lab; Manufacturing lab; Welding lab; Faculty offices.

INS - Instructional Center - Faculty offices; General and computer classrooms; Biology lab; Chemistry lab; Developmental classrooms; Engineering Design Technologies lab; Health Careers offices; Honors Program Office; Nursing lab; Physics lab; Tutoring center.

KIR – Kirtland House - Conference Center; Art Gallery**.**

LIB - Library - Computer labs; eServices; ITV Room, Library facilities; Telecommunications Center.

PAC - Performing Arts Center - Kirtland Center for the Performing Arts; G.I. Stewart Auditorium.

PHY - Physical Plant - Printshop; Maintenance and Grounds Department; Shipping & Receiving.

STU - Student Center - Bookstore; Cafeteria; COOR offices; Game Room; Music lab; Student Senate Office; Switchboard; Public Safety & Security Office;

ADMISSIONS AND FINANCIAL AID

GETTING STARTED

ADMISSIONS POLICY

Kirtland Community College adheres to the "open door" policy of granting general admission primarily to all persons above the twelfth-grade age level. Depending upon the applicant's situation, either "regular" or "special" admission status will be granted.

Regular Admission

Regular admission will be granted to high school graduates and successful completers of the General Education Development (GED) test. Individuals who do not meet this requirement may also be granted regular admission by meeting "ability to benefit," as defined by federal regulations.

Lack of English skills will not be a barrier to admission. International students may be granted regular admission provided they meet certain English proficiency and financial requirements, as determined by the designated school official in the President's office.

Special Admission

Special admission will be granted to anyone who does not qualify for general admission. Persons admitted under this category will be restricted to non-degree/certificate-seeking status. The special admission category includes the following two groups:

1. Dual-Enrolled Student: a K-12 student who is also attending college. Dual-enrolled students are required to submit a Dual Enrollment form for each semester or session of enrollment. All dual-enrolled students must have written authorization to attend Kirtland from their school's principal or counselor. Dual enrollees must also take Kirtland's Placement Tests.

2. Non-High-School Completer: is a person who has withdrawn from high school, has not earned a GED certificate, and has not met the ability-to-benefit requirement.

Any person who desires either special or regular admission to Kirtland must complete an Application for Admission form. All students under the age of 18 must have parental or legal guardian consent.
Students being granted regular admission are encouraged to provide one of the following: (1) a high school transcript (with graduation date indicated), or (2) an official report of GED test results, verified by the college, showing test scores achieved by the applicant.

If regular admission was granted on the basis of the "ability to benefit" requirement, an official report showing test scores achieved by the applicant must be received and verified by the college.

Admission of Home Schooled Students

Most students attending college have earned a diploma from a public or private high school. Some students, however, have completed their high-school-level studies through a home school program. Parents of home schooled children are encouraged to register their program with the State of Michigan's Department of Education.

When a student attends a public or private high school, an official transcript (list of courses completed and grades earned by a student) is kept by the high school and made available to colleges upon a student's written request. In lieu of an official transcript, home schooled students are expected to provide a list of high-school-level courses completed and the grades earned in each course. If a home school diploma was awarded, a copy should also be sent to Kirtland's admissions office.

The Michigan Commission on Law Enforcement Standards (MCOLES) requires that criminal justice students complete a GED or a high school or adult education diploma, in addition to their home school diploma, in order to become certified.

Additional admissions requirements must be met by those students planning to enroll in one of the following programs of study:

- Criminal Justice Administration
- Criminal Justice Pre-Service
- Corrections Administration
- Correctional Officer
- Emergency Medical Services/Paramedic/EMT
- Nursing Level I - Practical Nursing
- Nursing Level II - Associate Degree in Nursing

Additional information about admissions requirements may be requested from an advisor or from the admissions office.

This admission policy will also be applied to returning students, regardless of their past admission status.

ADMISSIONS ADVISING

Beginning a program of study which will eventually lead to successfully obtaining a certificate or degree takes careful planning. Students need the guidance of an academic advisor in order to be assured that they are following the requirements for their chosen degree. Students whose first college experience is at Kirtland are required to speak to an advisor before being cleared to register for classes.

TRANSFER OF CREDITS

Students who have attended other colleges must request that an official copy of their academic transcript be sent to Kirtland Community College for evaluation. An official transcript should be mailed directly to Kirtland from each college attended; student copies are not accepted. Credit from regionally accredited colleges and universities is automatically considered for transfer if deemed to be applicable to the student's declared program of study. Credits only, not grades, are transferred for courses in which a "C" or better grade has been earned. Students who were awarded credit by departmental exam may be required to pass a Kirtland examination prior to the awarding of credit. Normally, a "C-" grade will not be accepted for credit, but students may appeal to the Dean of Instruction if consideration is sought for a course previously denied for transfer based on the grade received. The dean will then consider the student's GPA and hours earned at the previous institution as well as the GPA and hours earned at Kirtland (if applicable) when making a determination. Acceptance of the grade is at the Instructional Dean's discretion, and his/her decision is final. If elective credits are awarded, it is possible that some may be able to be used to fulfill degree requirements. A student's academic advisor will make that determination and complete the paperwork needed to substitute the elective course for a specific program requirement.

Non-Regionally Accredited Colleges and Universities

Credit may be given for courses transferred from non-regionally accredited colleges and universities. The policy is the same as described above for "Transfer of Credit from Regionally Accredited Colleges and Universities," with the following exceptions:

1. The Registrar's office may choose to request a recommendation of transfer credit for the transcript in question from the academic advisor for the program in which the student has enrolled.
2. The student may be requested to demonstrate knowledge and/or skills commensurate with the performance required for satisfactory completion of existing courses.
3. Credit may not be granted.

Other Transfer Credits

Kirtland Community College recognizes the following opportunities for awarding transfer credits:

1. **College Board Advanced Placement Program (AP**)
   College course credit will be granted to students who participate in the APP and pass the Advanced Placement examinations with a score of three, four, or five. Students must submit a College Action Report to the admissions office for evaluation.

2. **College-Level Examination Program (CLEP)**
   College course credit will be granted to students who take a CLEP Examination and achieve the minimum passing score as recommended by the American Council on Education (ACE). Kirtland Community College does not award credit for all CLEP Examinations. A list is available in the counseling office that shows the CLEP Examinations acceptable for credit. Students must submit an official CLEP transcript to the admissions office for evaluation.

3. **DANTES Subject Standardized Tests (DSSTs)**
   College course credit will be granted to students who participate in the DSSTs and achieve the minimum passing score as recommended by the American Council on Education (ACE). A list is available in the counseling office that shows the DANTES Examinations acceptable for credit. Students must submit an official transcript to the admissions office for evaluation.

4. **Educational Experiences in the Armed Services**
   Veterans may be awarded college credit for the service schools they attended and their work experience while in the U.S. military. The college awards credit based on recommendations provided by the American Council on Education (ACE). Students must have their official transcripts sent to the admissions office for evaluation of military credit. Transcript request forms are available in the admissions office.

5. **United States Armed Forces Institute (USAFI) Program**
   College course credit will be granted to students who participated in the USAFI Program and achieved the minimum passing score as recommended by the American Council on Education (ACE). Students must submit an official transcript to the admissions office for evaluation.

6. **Articulation**
   College course credit will be granted to students who have met the requirements of formal articulation agreements between the college and secondary educational institutions. Students must submit an Application for Articulation Credit form and a copy of their final high school transcript to the records office at Kirtland Community College for evaluation. College policies concerning the transferability of articulated credit vary. Students should check with the college to which they plan to transfer to determine if the articulated credit will be accepted by that college.

   Currently Kirtland has articulation agreements with the following secondary educational institutions: Alpena, Beaverton, Boyne City, Charlevoix, Cheboygan, Clare, Clare-Gladwin RESD, COOR ISD, East Jordan, Fairview, Gaylord, Gladwin, Grayling, Houghton Lake, Huron Area Technical Center, Inland Lakes, IRESA Career-Tech Institute, Johannesburg-Lewiston, Mio, Ogemaw Heights, Oscoda, Petoskey, Roscommon, Tawas Area, Wexford-Missaukee ISD, and Whittemore-Prescott. Articulation is an agreement where high school graduates can receive college credit for certain courses they completed while in high school. For further information, students should consult with their high school counselor or contact the faculty chairperson or associate dean of their program of study.

PROFICIENCY IN BASIC ACADEMIC SKILLS AND PLACEMENT TESTING

Kirtland Community College requires prospective students to demonstrate basic academic skill proficiencies in English, reading, and mathematics before they will be permitted to enroll in college-level courses. Acceptable ways in which a student may demonstrate proficiency in one or more of the basic academic skills include the following:

1. Submitting ACT test results. The ACT must have been taken within four years of enrollment at the college. Test results can be presented in person or mailed to the admissions office.

2. Submitting test results from the Advanced Placement Program, CLEP, or DANTES. Official transcripts must be sent to the admissions office. An Application for Admission must be on file for a credit evaluation to be completed.

3. Transferring credit for courses taken in English and mathematics at another college or university. Courses must be completed with a C grade or better. Official transcripts must be sent to the admissions office. An Application for Admission must be on file for a credit evaluation to be completed.

4. Enrolling as a "Personal Interest" student. A student is permitted to take one occupational-technical course, preparatory, business seminar(s), and studio art course(s) without being required to test for such placements.

5. Taking developmental courses offered by the college in the basic academic skills of English, reading, and mathematics.

6. Taking the COMPASS Test within four years of enrollment at the college. The COMPASS Test consists of tests in English, reading, and mathematics.

Further exceptions to the Proficiency in Basic Academic Skills and Placement Testing policy may be granted by the associate dean responsible for testing, or the dean of student services.

NEW STUDENT ORIENTATION

Practical information about campus procedures and college services are explained in the Student Orientation Guide, which is provided to new students when they take the COMPASS Test. New students, both new to the college experience and transferring from another college, find this information vital to their success at Kirtland. Please call the admissions office at 989-275-5000, extension 284, for more information.

PAYING FOR COLLEGE

TUITION AND FEES

Tuition

For current tuition and fee rates please refer to our website at http://kirtland.edu/accounting/tuitionsummary.htm.
Tuition and fees for M-TEC classes are available at http://mtec.kirtland.edu/schedule, or students may call (989)705-3600 for more information.
NOTE: Tuition and fees are subject to change without notice.

Payment for Classes

Upon registration, it is the ultimate responsibility of the student to pay tuition, fees, and other debts incurred at Kirtland by the appropriate due date listed in the current class schedule and on http://www.kirtland.edu/accounting. When registering in person, each student will be given a statement of account, with his/her class schedule. For students registering via myKirtland, it is the student's responsibility to view and print their charges from the "Account Detail" window on the Student Tab at MyKirtland. Statements will only be mailed upon request. Students with questions concerning their accounts are encouraged to contact the accounting office in the administration center at 989-275-5000, extension 218.
If payment in full is not received by the due date, the student's classes may be dropped. If there is a reduction to financial aid or third party funding amounts, the student will be invoiced via the United States Postal Service. Delinquent accounts will be turned over to a collection agency and the cost of such action will be added to the student's account. Students are not allowed to register for classes or receive transcripts until all financial obligations to Kirtland have been met.

Methods of Payment

Cash – Payment may be made in person at the Accounting Office located in the Administration Center. Cash should not be sent through the mail.

Check or Money Order – Payments can also be remitted to Kirtland Community College, Accounting Office, 10775 N. St. Helen Road, Roscommon, Michigan 48653. The student ID number needs to be included with the payment. A $25.00 charge will be assessed for all NSF checks returned by the bank.

VISA, MasterCard, Discover - Students have the option of paying by telephone by calling 989-275-5000, extension 218, or online via myKirtland at: my.kirtland.edu. After logging in, click on the student tab. Then go to the account detail window, verify the semester, click submit and follow the payment instructions.

Employer or Sponsoring Agency - The accounting office can bill a student's employer or a state agency if a signed authorization or letter is submitted prior to the payment due date or at the time of registration. Written authorizations need to be submitted each semester.

Financial Aid/Loans/Scholarships - When a student's financial aid award is approved, the amount will automatically be credited as an "anticipated award" to his/her account. If the award does not cover the balance in full, the student is responsible for paying the difference by the due date. Also, if a student applies late for financial aid and the award has not been approved by the payment due date, the student must be prepared to pay. He/she may be reimbursed after the award has been posted as a "final" award to the account.

e-Cashier Payment Plan

Students with a tuition and fee balance of $100.00 or more may be eligible for the e-Cashier Payment Plan offered through Nelnet Business Solutions. This plan enables students to make interest-free payments for tuition and fees via automatic transactions from a checking, savings, or credit/debit card account. The cost to enroll is $30.00 per semester. Tuition and fees may be budgeted for up to five months per semester. The earlier a student registers, the smaller the monthly payments can be. **If a student plans to make payments through Nelnet, an online application must be submitted by the payment due date or on the day of registration. Otherwise, the student's classes may be canceled.** After registering for classes, students can apply online by logging into myKirtlandWeb at: my.kirtland.edu. Once you are logged in click on the student tab. Go to the Account Detail window, verify the semester, and click submit. Then, click the e-Cashier icon at the very bottom of the page and follow the on screen instructions. Once the application is submitted, the student will receive an e-mail notification verifying the agreement. More information is available online on the accounting web pages at: www.kirtland.edu/accounting.

Residency

The burden of proof of residency is the student's responsibility and acceptable documentation must be provided to the admissions office prior to the first day of the semester in which the residency status is to be applied. Retroactive residency adjustments will not be considered.

Kirtland Community College will perform ongoing verification of residency information. Students who have misrepresented information or have falsified documents may have to repay tuition, verify back records, or may be subject to disciplinary action by the College. If a student has mail returned to the college, a hold code will be placed on his/her record and the student must verify his/her residency at the Admissions Office.

In-District Residency

A new student will be classified as in-district if (s)he can prove that (s)he resides in the Kirtland College district prior to the first day of the semester of attendance at Kirtland.

Acceptable proof: driver's license, verifiable rent receipts (if rent receipts are not available, a notarized letter from the landlord will be accepted), a dated lease agreement, voter's registration card, place of residence property tax receipt, Secretary of State identification card. Verifiable rent receipts must contain all the following information: the address of the property being rented; the date of payment; signature, address and phone number of the landlord.

A returning in-district student will continue to be considered in-district if (s)he can prove (s)he continues to reside in the district.

Out-of-District Residency

A new student will be considered out-of-district if (s)he can prove residency within Michigan prior to the first day of the semester of attendance at Kirtland, but cannot prove in-district residency.

Acceptable proof: driver's license, verifiable rent receipts (if rent receipts are not available, a notarized letter from the landlord will be accepted), a dated lease agreement, voter's registration card, place of residence property tax receipt, Secretary of State identification card. Verifiable rent receipts must contain all the following information: the address of the property being rented; the date of payment; signature, address and phone number of the landlord.

A student who resides outside the district can be assessed an in-district tuition rate if (s)he provides the college with tax receipts showing tax payments to the college, as long as the property is owned by the student or the student is a dependent of the person who owns the property.

A returning out-of-district student will be considered in-district if (s)he can prove in-district residency prior to the first day of the semester of attendance.

Out-of-State Residency

A student who cannot prove in-district or out-of-district residency will be considered out-of-state if (s)he is a U.S. citizen, or if (s)he is a registered alien (has a green card) who resides in the U.S. or if (s)he resides outside of the U.S. An out-of state student can change his/her classification to in-district in the same way that is described for out-of-district students.

International Student Status

A student who is not a U.S. citizen and who is attending Kirtland Community College under an F-1, J-1, or J-2 visa will be considered an international student.

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REFUNDS

Tuition and fee refunds are based on the following schedule:

Full-semester courses

- 100 percent refund through and including the census date for the semester.
  - Fall and Winter semester – 10th business day after semester start date.
  - Summer semester – 7th business day after semester start date.

Open Entry/Open Exit Courses

- 100 percent refund prior to the start date indicated on the student's FLEX contract.
- No refunds as of the start date indicated on the student's FLEX contract.

All other courses

- 100 percent refund through and including the census date for the course. Contact Registration Office for the census date.

The college will follow any federally mandated refund schedules. Contact the accounting office for more information. Exceptions to the refund policy due to hardship may be reviewed by the dean of student services. Requests must be made within one year of the student's initial billing due date.

Cancelled Class

Students registered for a course cancelled by the college will be refunded ALL tuition and fees for the cancelled course.

Federal Return of Funds/Repayment Policy

Under changes made by the Higher Education Reconciliation Act of 2005 (HERA), this policy focuses on the amount of Title IV program funds to be returned when a student withdraws from college prior to completing the semester. This policy applies only to students receiving Title IV aid (federal PELL grants, federal SEOG, Academic Competitiveness Grant and federal subsidized and unsubsidized Stafford Loans).

During the first 60% of the enrollment period, a student "earns" Title IV funds in direct proportion to the length of time he or she remains enrolled. Students who withdraw totally from the college without completing 60% of the enrollment period will be required to repay a portion of the aid received. For example, a student withdrawing after completing 10% of the enrollment period may need to repay up to 90% of the federal funds that were awarded.

A student's withdrawal date is:

- The date the student began the institution's withdrawal process, or
- The midpoint of the period for a student who leaves without notifying the school.

The institution has the option of using the student's last date of attendance at a documented academically-related activity in lieu of any other withdrawal date.

The responsibility to repay unearned aid is shared by the school and the student in proportion to the aid each is assumed to possess.

The institution's share is the lesser of:

- The total amount of unearned aid, or
- Institutional charges multiplied by the percentage of aid that was unearned.

The student's share is:

- The difference between the total unearned amount and the institution's share.

Under the HERA, the amount of a grant overpayment due from a student, is limited to the amount which the original grant overpayment exceeds half of the total Title IV grant funds received. Students do not have to repay a grant overpayment of less than $50 to the U.S. Department of Education.

NOTE: Kirtland will bill students for any balance owed due to the College's return of funds. A student who withdraws may have charges not covered by financial aid, such as non-classroom-related items charged at the bookstore, which must be paid by the student.

FINANCIAL AID

The Kirtland Community College financial aid office endorses the philosophy that the primary source of support for a student should come from his/her own family. However, to the extent funding will allow, Kirtland will try to assist a student with financial aid when the family is unable to meet college expenses. Approximately two out of three students receive financial assistance through scholarships, grants, loans, and/or student employment.

Financial aid is a privilege, not a right. Therefore, it is the student's responsibility to: (1) obtain and file the appropriate forms; (2) maintain the correct address on file; (3) respond promptly and fully to all requests for information; and (4) understand and comply with the rules governing the aid received.

HOW TO APPLY FOR FINANCIAL AID

All students wishing to be considered for federal financial assistance (including student loans and work study) must complete and file the Free Application for Federal Student Aid (FAFSA) available online at www.fafsa.ed.gov. FAFSA's are also available by calling 1-800-4FED-AID. This is not an application for any particular form of aid; rather, it is an application **for needs analysis**, on which many federal and state aid programs are based.

Within 8-10 days after submitting the FAFSA online, the student will receive his/her copy of the Student Aid Report (SAR). If there are any problems, errors, or questions, the student should contact the financial aid office. The SAR will be used to determine which programs the student is eligible for and how much can be awarded. The student may need to provide supporting documentation for information provided on the FAFSA.

A student's application for aid at Kirtland will not be considered finalized until the following items are completed:

1. The applicant has been officially admitted to Kirtland Community College.

2. The financial aid office has on file the following documents:
   - Student Aid Report (SAR) from the federal processor and,

   If selected for verification:
   - Verification Worksheet
   - Income documentation: federal income tax returns and/or other sources of income
   - Other information as requested

3. The applicant has been packaged for aid and mailed a letter by the financial aid office listing the award(s) offered.

4. If awarded Stafford loans, the Master Promissory Note must be completed.

HOW THE FINANCIAL AID FORMULA WORKS

Most federal and state financial aid is awarded on the basis of demonstrated financial need. The formula used to determine who has need and who does not is actually quite simple. The following equation is used:

Student Budget - Expected Family Contribution = Financial Need

Student Budget is the cost of attending college (tuition, fees, room and board, transportation, books, supplies, etc.).

Expected Family Contribution is taken from the student's Student Aid Report.

Financial Need is the maximum dollar amount of need-based aid from the various sources for which the student is eligible.

A student will not necessarily receive financial assistance up to the maximum dollar amount for which he/she may be eligible. The various sources of aid have maximum award amounts and may be further affected by limitations in the availability of funds. Loans may be available if grant aid is insufficient. Inquire at the financial aid office if additional funding is needed.

Applicants' answers to certain questions will determine whether they are considered "dependent" (still part of a parent's family unit) or whether they are "independent" (has formed their own family unit). Students are classified according to family unit because federal student aid programs are based on the idea that students and their parents or spouses (if applicable), have the primary responsibility for paying for their postsecondary education. To be considered "independent," at least one of the following must apply to the student:

- turns 24 before January 1 of the academic year for which aid is sought.
- is a veteran of the U.S. Armed Forces.
- is an orphan or ward of the court until age 18.
- is married.
- financially support dependent children.
- emancipated minor
- unaccompanied youth/homeless

HOW DO STUDENTS PAY FOR CLASSES IF THEY HAVE FINANCIAL AID?

At time of registration, and if and only if all financial aid paperwork has been received and processed by the financial aid office, a student may charge college costs (tuition, books, supplies, and certain fees) up to the amount the student has been awarded in aid. If a student does not have all paperwork completed at time of registration, the student will be obligated to make other arrangements for payment and may be required to pay in full. Students must be aware that financial aid is always subject to change without prior notice if changes occur in the student's enrollment status, class attendance, personal circumstances, or in federal or state guidelines.

The student is responsible for all college bills not covered by financial aid. All charges incurred during a semester that are not covered by financial aid must be paid by the student before the student will again be allowed to register.

FINANCIAL AID AND WITHDRAWALS

A student who withdraws, ceases attendance, or is expelled may have charges and financial aid adjusted according to the time and circumstances of cessation of enrollment. Students should refer to the refund schedules, which are published in the current class schedule. Failure to attend class without officially withdrawing may void financial aid, leaving the student responsible for all charges. Students must advise the student services office in writing in order to withdraw.

OVERAGES AND REFUNDS

Overages, or payments due the students from their awards after charges have been deducted, will be start to be made available approximately the fifth week of class. Thereafter, additional overage checks are run approximately twice a month throughout the semester. Exceptions are for: work-study pay checks, which are issued biweekly; and those students who are enrolled in modular coursework programs.

STANDARDS OF SATISFACTORY ACADEMIC PROGRESS

To be eligible for financial aid, students must be in Good Academic Standing and making Satisfactory Academic Progress, as defined below, toward the completion of a one-year certificate or degree program. This policy applies to all students receiving assistance from any financial aid program administered by the Kirtland Community College financial aid office. This policy is separate from the college's general probation policy and is monitored at the completion of each semester of enrollment. The following standards must be met to continue to receive financial aid:

Good Academic Standing

Good Academic Standing means maintaining a current grade point average (GPA) of 2.00 or better. In addition, once the student has completed a cumulative total of 60 credit hours, the student must maintain a cumulative GPA of 2.00.

Satisfactory Academic Progress

Satisfactory Academic Progress means that the student is making reasonable progress toward completion of a degree or certificate program. For each semester of enrollment, students must satisfactorily complete 66% of the credits for which they were awarded aid.

A student shall not receive financial aid for credit hours taken beyond a maximum of 150 % of the published length of their declared program of study. Upon completion of a program of study, a student may be considered for financial assistance up to a maximum of 150 % of a new program of study. Kirtland Community College limits financial aid eligibility to a maximum of three eligible certificates (without completing an associate degree) and no more than three associate degrees. In addition, the following rules also apply:

- Classes taken for audit will not be considered when determining eligibility.
- Incomplete (I) grades are considered as failures to complete unless and until changed to passing grades.
- No more than 30 credit hours of remedial classes will be approved for financial aid.
- Repeated courses will be allowed only if the previous course grade was less than a 1.00.

PROBATION/TERMINATION

Any student failing to meet the above standards will be placed on financial aid probation for the student's next actual period of enrollment. A student will continue to receive financial aid during the probationary semester. The student must complete a minimum of six credit hours to be considered for removal from probation. Failure to do so will result in termination from future financial aid. In the case of a student who has exceeded the allowable semester limit, all requirements for graduation should be met during the probationary semester as no further financial aid will be granted.

REINSTATEMENT

Except for students exceeding the time limitations within a degree or certificate program, a student may regain eligibility for financial aid by enrolling for a semester and satisfactorily completing, at his/her own expense, a minimum of six credit hours. It is the student’s responsibility to notify the financial aid office when satisfactory academic progress has been met.

Students should be aware, however, that all of the above listed requirements are applicable whenever financial aid is being considered, whether or not any previous courses were taken at the student's expense. The only exception to this policy shall be in the instance where a student applying the first time for financial aid, who has a prior record of unsatisfactory progress but has been allowed by the college to enroll, may be considered for financial aid for one probationary semester. As stated previously, satisfactory completion of probationary requirements will remove the probationary status.

APPEALS/SPECIAL CIRCUMSTANCES

All students have the right to appeal any decision or action taken regarding their financial aid. Appeals may be made in written form to the director of financial aid. The student must explain any mitigating circumstances and be prepared to provide all reasonable proof or documentation requested. A committee decision is final. The result of an appeal will be recorded and kept on file.

Any student who feels his/her family has special circumstances that might affect the amount the family can contribute, may request, in writing, a professional judgment analysis by the financial aid office. Special circumstances include unusual medical or dental expenses; tuition for children attending private school; or recent unemployment of the student, his/her spouse, or parents. The director of financial aid will review the request to determine if circumstances meet professional judgment guidelines. Any decision made in this regard is final and cannot be appealed to the Department of Education.

CONFIDENTIALITY OF RECORDS

Information contained in the financial aid file is strictly confidential and will not be released without the prior written approval of the student. However, departments within the college may be provided information on a "need-to-know" basis. Files are generally destroyed after five years.

STATEMENT OF COMPLIANCE

Financial aid is awarded in compliance with all pertinent federal and state laws and regulations, without regard to race, creed, color, religion, national origin, sex, age, or handicap, except as provided under federal and state laws and regulations.

STUDENT EMPLOYMENT

Part-time student employment is offered both on and off campus. The federal and state government and Kirtland Community College provide work-study dollars which fund the student employee program. Off-campus employers may be obligated to contribute matching funds. The goals of the program are to provide employment experience, the opportunity for community service, and additional financial assistance to students. Students are paid an hourly rate for the work they perform.

Students must file the Free Application for Federal Student Aid form (FAFSA) before consideration for student employment and attend a student employee orientation.

STUDENT EMPLOYMENT HANDBOOK

The purpose of the Student Employee Handbook is to inform students of the general provisions and regulations of work study, a financial aid program that provides valuable job experience through student employment. This booklet includes responsibilities of student employees and their supervisors, how to complete a time sheet, office conduct, student employee evaluation process, and forms. Contact the financial aid office for a copy.

SOURCES OF FINANCIAL AID

There are many different types of student financial aid. Almost all, including state and federal grants, student loans, work-study, and even many scholarships, require the filing of the Free Application for Federal Student Aid form (FAFSA) for a determination of "financial need." Financial aid is classified in the following manner:

Grants - do not have to be repaid; awarded on the basis of demonstrated financial need.

Scholarships - do not have to be repaid; based upon academic performance and/or special circumstance. Demonstrated financial need may be considered.

Student Loans - must be repaid. Interest rates and repayment options are regulated by federal law and may change year to year.

Work-Study - is part-time work during the school year and vacation periods. Demonstrated financial need is typically considered.

GRANTS

ACADEMIC COMPETITIVENESS GRANT

This grant program is available only to Pell eligible students that graduated from high school on or after January 1, 2005 and completed a rigorous high school program. Students must complete the FAFSA and acknowledge completion of a rigorous program of study. The College is required to obtain a final high school transcript and evaluate before an award can be made. Freshman may receive up to $750 and sophomores may receive up to $1300.

CHILDREN OF VETERANS TUITION GRANT

Children of Michigan veterans whose death or total disability is connected with wartime service should also inquire about the Michigan Veterans Trust Fund. If they are Michigan residents and not over 25 years of age, they may be eligible for full or partial coverage of tuition and fee charges. Contact the Michigan Office of Scholarships and Grants at 1-888-447-2687 for details.

BUREAU OF INDIAN AFFAIRS (BIA)
The student must be a registered member of a federally recognized American Indian tribe, be enrolled in a public college or university, and demonstrate financial need. For more information, contact Bureau of Indian Affairs, Federal Square Office Plaza, Box 884, Sault Ste Marie, MI 49783. Phone: 906-732-6809.

FEDERAL PELL GRANT
The Federal Pell Grant is awarded to undergraduate students demonstrating financial need. Students must complete the FAFSA. For the 2010-2011 academic year an annual award of up to $5550 is possible. Awards are pro-rated based on the actual enrollment level of the student each semester. In some cases, students may exceed their annual award for summer semester enrollment.

MICHIGAN TUITION INCENTIVE PROGRAM (TIP)
The student must be from a low-income family and must have graduated from high school or completed a GED prior to age 20.

If the student is eligible, the state will pay tuition and mandatory fees at Michigan community colleges and some universities. TIP does not cover course fees and coverage is limited to 24 credits per academic year. Applications should be submitted to the state no later than the senior year in high school, although eligibility may be established as early as grade seven.

FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT (SEOG)
This grant is awarded as a supplement to the PELL Grant to students showing exceptional need. Priority is given to students with the lowest expected family contribution as determined by the FAFSA. The typical award at Kirtland Community College is $200 a year.

SCHOLARSHIPS

MICHIGAN COMPETITIVE SCHOLARSHIP
This is a state scholarship awarded to eligible Michigan high school graduates. Applicants must have a qualifying score from the ACT and have financial need as determined by the FAFSA. The current full year award is $510.

SCHOLARSHIPS/GRANTS OFFERED BY KIRTLAND COMMUNITY COLLEGE

ATHLETIC SCHOLARSHIP
This scholarship is awarded to select students participating in Kirtland's athletic programs. Contact the athletic director for details.

DEPARTMENTAL SCHOLARSHIP
This scholarship is limited to Kirtland students who have completed, or are in the process of completing, at least 24 college credits, of which at least 12 must have been taken at Kirtland. Consideration is given to the student's overall GPA, the program GPA, and the program advisor or instructor's recommendation.

DUAL ENROLLMENT/DIRECT CREDIT SCHOLARSHIP
Students must have graduated from high school in the past academic year and have successfully completed a Kirtland Community College course

GILBERT I. STEWART SCHOLARSHIP
Students must have graduated from high school within the past academic year with a minimum GPA of 3.50.

KIRTLAND HONORS SCHOLARSHIP
Students must have been accepted into the Kirtland Honors Program.

KIRTLAND INDIAN TUITION WAIVER
The student must have been a Michigan resident for at least 12 months and be certified by his/her tribal association as not having less than 1/4 blood quantum.

MICHIGAN ARMY AND AIR NATIONAL GUARD TUITION WAIVER
A 25% tuition waiver is available to degree-seeking members of the Michigan Army or Air National Guard.

PRESIDENT'S SCHOLARSHIP
Students must have graduated from high school within the past academic year with a minimum GPA of 3.00.

SENIOR CITIZEN SCHOLARSHIP
Students must be residents of the Kirtland district, age 60 or over. Students should refer to the current class schedule for details.

SCHOLARSHIPS/GRANTS SPONSORED BY THE KIRTLAND FOUNDATION

ANN AND LAWSON CHAMBERS SCHOLARSHIP
This scholarship is limited to students who are residents of Rose City and Lupton.

AUTOMOTIVE EXCELLENCE SCHOLARSHIP
This scholarship is limited to sophomore level students pursuing a certificate or degree in automotive technology.

CARL J. DARLING JR. MEMORIAL SCHOLARSHIP
This scholarship is limited to criminal justice pre-service students entering the Police Academy. Students must have a GPA of 2.5 or better.

MILDRED DEBOLT SCHOLARSHIP
This scholarship is limited to students majoring in English.

DONALD N. FENTON MEMORIAL SCHOLARSHIP
This scholarship is limited to sophomore level students planning to transfer to a university/college to study environmental science, teaching of environmental sciences or teaching of science. Minimum GPA of 2.5.

JAMES D. FRYFOGLE MEMORIAL
This scholarship is limited to Kirtland Level II Associate Degree Nursing students who maintain a minimum 3.00 GPA in their core courses and a minimum 2.50 GPA for all other courses. They must also be residents of the college district.

MARGUERITE GAHAGEN SCHOLARSHIP
Students applying for this scholarship must be majoring in journalism at Kirtland. They must have earned a 3.00 GPA. Preference is given to those who reside in Roscommon County and/or show financial need.

PAT HILL MEMORIAL NURSING SCHOLARSHIP
This scholarship is limited to Kirtland Level II Associate Degree seeking students. Minimum 3.25 GPA. Preference may be given to Crawford County residents with dependents.

WILLIAM INGLESON MEMORIAL SCHOLARSHIP
This scholarship is limited to students pursuing a career in counseling.

JEAN KING MEMORIAL
This scholarship is limited to students majoring in fine arts or commercial arts at Kirtland. They must be residents of the college district. First preference will be given to residents of Ogemaw County.

OTTO AND MARTHA KRAUSS HONORS SCHOLARSHIP
Students must be admitted to the Kirtland Honors Program.

RON & MELANIE MARINO MEMORIAL SCHOLARSHIP
Students must be seeking a degree or certificate on at least a half-time basis. Applications will be reviewed based upon a Statement of Goals, an instructor's recommendation, and an evaluation of financial need. Employees or immediate family members of Weyerhaeuser Company shall receive first consideration.

HERBERT AND EVELYN MILLER SCHOLARSHIP
This scholarship is limited to Kirtland Level I LPN students who maintain a minimum 3.00 GPA in their core courses and a minimum 2.50 GPA for all other courses.

HERBERT F. POEHLE MEMORIAL
This scholarship is limited to students majoring in fine arts at Kirtland Community College.

THE KEITH RICH TRUST
This scholarship is limited to students enrolled in nursing or other medically related programs at Kirtland. Applicants or their parents/guardians must be residents of Lyon Township, Roscommon County, Michigan.

PATRICK J. TRAHAN MEMORIAL
This scholarship is awarded in recognition of academic performance in chemical science, with preferential treatment given to those students pursuing a career in conservation or natural resources.

MARGUERITE D. WILTSE MEMORIAL SCHOLARSHIP
This scholarship is limited to students from Crawford, Ogemaw, Oscoda and Roscommon Counties pursuing health careers. Preference is given to those students with financial need.

SCHOLARSHIPS SPONSORED BY OUTSIDE AGENCY

JANET SIEB MEMORIAL SCHOLARSHIP
This scholarship is limited to full-time students in a business or office information systems program. Applicants must be residents of the college district and demonstrate financial need.

OTHER SCHOLARSHIPS

Many other particular and unique scholarships may be available from corporations, associations, agencies, clubs, churches, and foundations. It is recommended that interested students make inquiries of their high school counselor, their local Chamber of Commerce, their place of employment (or their parent's), any organizations to which they or their parents may belong, and the financial aid office.

STUDENT LOANS

NOTE: Loan eligibility criteria are subject to revision. Contact the financial aid office for current procedures.

FEDERAL DIRECT STAFFORD LOAN PROGRAM
Subsidized Stafford Loan
This loan is for students enrolled at least half-time who demonstrate financial need beyond what is met by other financial aid. The federal government covers interest payments during periods of deferment. Students must file the FAFSA to have financial need determined.

Unsubsidized Stafford Loan
This is identical to the subsidized loan, except that the federal government does not pay the interest while a student attends classes.

PARENT LOAN PROGRAM (PLUS)
This loan is for parents of dependent students who have obtained the maximum financial assistance from other sources, including the PELL Grant and Stafford Loan.

ALTERNATIVE STUDENT LOAN PROGRAMS
Students showing need over and above all other sources of financial aid for which they have been determined eligible may apply for an alternative loan.

OTHER PROGRAMS AVAILABLE AT KIRTLAND

SPECIAL POPULATIONS GRANTS
Attendance costs such as tuition, fees, books, supplies, uniforms, transportation, and/or dependent care may be covered for special population students enrolled in approved occupational programs or courses. Grants may be available to students with disabilities, students who are economically disadvantaged, students with limited English proficiency, and also to the following students:

1. Single Parents, including single pregnant women, who are unmarried or separated from a spouse and have a minor child or children for whom the parent has either custody or joint custody, or who are unmarried or separated from a spouse and pregnant.

2. Displaced Homemakers, who: (a) have worked primarily without pay to care for the home and family and for that reason have diminished marketable skills (b) are also unemployed or underemployed and have experienced difficulty in obtaining or upgrading employment. They must also have been dependent on the income of a family member but are no longer supported by that income or must be a parent whose youngest dependent child will become ineligible to receive Social Security assistance not later than two years after applying for the Title IV Social Security assistance.

3. Nontraditional Training and Employment Participants who are preparing for occupations or fields of work, including careers in computer science, technology, and other emerging high-skill occupations, for which individuals from one gender comprise less than 25 percent of the individuals employed in each such occupation or field of work.

Students participating in these programs must apply for other appropriate federal financial assistance by completing the Free Application for Financial Student Aid form (FAFSA). Priority is given to those with the greatest financial need.

VA EDUCATIONAL BENEFITS

Entitlement and Eligibility

Veterans, dependants, and selected reservists should contact Kirtland's financial aid office in the administration center to obtain accurate, complete, and current information concerning educational benefits.

Educational Benefit Programs available are the following:

1. Chapter 30, Montgomery GI Bill
   Active Duty Educational Assistance Program

2. Chapter 31, Vocational Rehabilitation
   Veterans with a compensatory service-connected disability that impairs employability

3. Chapter 33, Montgomery GI Bill Post 9/11

4. Chapter 35, Educational Assistance for Veterans' Dependents
   Children and spouses of veterans who died of a service-connected disability or who are totally and permanently disabled from a service-connected disability

5. Chapter 1606, Montgomery GI Bill Selected Reserve Educational Assistance Program

6. Chapter 1607, Reservists called to active duty in response to war.

VA Application Process

VA application forms are available online at www.gibill.va.gov, or from the financial aid office located in the administration center. The application may be submitted online to the VA or by the financial aid office.

If the student has previously drawn educational benefits elsewhere, the student needs to complete a Request for a Change of Place and/or Program form and have transcripts from other colleges sent to Kirtland for evaluation as soon as possible. Benefits can be suspended if credit evaluations are not reported to the VA before the student completes two semesters.

Certification of Enrollment

Students must request certification of enrollment each semester. The KCC Veterans Certification Request form must be fully completed and submitted to the financial aid office along with a class schedule.

Pay Rate

Monthly rates vary according to which VA program is providing the assistance, the student's course load status and length of semester enrollment.

Advance Pay

Students eligible for VA benefits may request an advance payment if they carry at least a half-time course load and the VA receives the enrollment certification at least 30 days before classes start. The advance check covers the initial month or partial month of the semester, plus the following month. This check is sent to the college. Subsequent checks are mailed to the student's mailing address or can be directly deposited to the student’s financial institution.

Guidelines and Responsibilities

1. Generally, classes certified must fulfill graduation requirements.

2. VA payment is not ordinarily allowed for repeating a previously passed course.

3. Any changes in program of study, course load, address, etc., must be reported to the financial aid office.

4. If any eligible student certified for benefits fails to enter a course or withdraws officially or unofficially from classes, the VA will be notified.

5. Students having problems with receiving their education benefits should contact the VA at their toll-free number: 1-888-442- 4551.

6. Certain VA programs require monthly verification. Attendance may be verified by calling 1-877-823-2378 at any time on the last day of the month or later, or use WAVE Internet access: www.gibill.va.gov

Consequences of Dropping Classes

If a student receiving VA benefits drops a class and it changes the course load, the drop will be reported to the VA. If a student fails a course, the last date of attendance in the course will be reported. Students are responsible for any overpayment due to their withdrawal (unofficial or official), or class failure.

Satisfactory Progress

A student receiving VA benefits needs to understand the college's policy regarding academic probation. When this policy allows, a VA student placed on probation may have a maximum of two consecutive semesters to raise the cumulative grade point average to a 2.0. Failure to do so will make the student ineligible for recertification, and unsatisfactory progress will be reported to the VA in writing.

MICHIGAN ARMY AND AIR NATIONAL GUARD TUITION WAIVER

A 25% tuition waiver is available to degree-seeking members of the Michigan Army or Air National Guard. Applications are available from the office of Financial Aid in the administration center or by mail by calling 989-275-5000, extension 257.

SERVICEMEMBERS OPPORTUNITY COLLEGES (SOC)

Kirtland Community College is designated as an SOC. SOC is a network of more than 1,400 colleges and universities whose policies and programs are designed especially to help meet the higher education needs of service-members. Contact the student services office for more information.

REGISTRATION AND ACADEMIC POLICIES

REGISTRATION PROCEDURES

All students are required to complete admissions requirements and procedures before registration for classes. Students register for classes according to instructions published each semester in the class schedule. Students may register online at specified times by using myKirtland at the following web site: www.kirtland.edu, in addition to registering in person.

A **registered student** is one who has completed the registration process, including arranging for payment of all financial commitments. A student must be registered for a class before he/she may attend the class. Questions concerning these procedures should be directed to the Office of the Registrar in student services.

CREDIT HOUR LIMIT

Students enrolling for more than 18 credit hours for the fall or winter semester, or more than eight credit hours for the summer session, must receive permission from their dean, associate dean, or designee. In the instance where the college catalog lists more than 18 hours as a suggested semester load, students may register without additional permission.

COURSE ADJUSTMENTS (ADDS AND DROPS)

Add/Drop forms for adding and dropping courses can be secured from the student services office. Adds and drops should be approved by the instructor or advisor and are to be used only to improve the student's instructional program.

Adding a class

Students are expected to complete their registration during the regular registration period. However, if a student must add a course, it should be done before the end of the first week of the semester. No student will be allowed to add a class after the class has met more than two times without written authorization from the instructor of the course.

Dropping a class
Students are permitted to drop any class in which they are enrolled, provided they submit a request to officially drop the class to the Records/Registration office during the published drop period. Exact dates of the drop period are published in each semester's class schedule. (Please refer to the information listed in this catalog under "Withdrawal from Courses.").

COURSE REPETITION

A student may repeat any course previously taken or an equivalent at Kirtland Community College to improve his/her grade. Only the higher grade is credited when computing the grade point average, although both grades appear on the transcript.

If the student has achieved a C grade or better on the first repeat of a course, a second repeat will not be permitted. A student may not repeat a course more than twice. Exceptions to this policy may occur when a student desires reentry or progression within a particular program that requires current competency. These exceptions may be authorized by the program advisor. Other exceptions may only be authorized by the dean or an associate dean.

Students receiving financial assistance should check with the financial aid office before registration. Students should be aware that financial aid will not generally cover a repeated class if the prior grade was a D or better.

AUDITING OF COURSES

A student who wants to attend a course regularly, but does not wish to receive a grade or credit may register to audit the course. A student who audits a course is required to officially register, indicate the class is for audit on the registration form, and pay all tuition and fees.

A change from audit to credit or credit to audit must be approved by the instructor of the course. A Change in Audit Status form can be secured from the student services office; the form must be properly completed, signed by the instructor, and submitted to the records office in student services for processing by the census date.

Financial aid is not available for a course taken for audit. Students receiving financial assistance should check with the financial aid office to determine what effect the audit may have on their financial aid package.

GRADE REPORTING SYSTEM

Grades are issued at the end of each semester or session and become a permanent part of the student's record. Kirtland operates on two 15-week semesters and an 8-week summer session.

Students must go online to view or print grades each semester, grades are not mailed. Students should log into myKirtland at www.kirtland.edu, and select “Course History” link. Students can select specific semester grades, or by selecting “All Divisions, All Terms” students can view or print a complete unofficial transcript showing all grades earned, and prerequisites met by placement testing. Students who do not have access to a computer or the Internet can use the computers on the Kirtland campus, or they may request unofficial or official transcripts (see “Transcripts” for ordering information).

The following grades are computed in the semester/term and cumulative/career grade point average (GPA): A, A-, B+, B, B-, C+, C, C-, D+, D, D-, and E. While the current semester is in session, an IP designation may appear on the transcript to denote that the course is currently in progress.

Academic achievement is recorded as follows:

Grade	Definition	Honor Point Value
A	Excellent performance	4.0
A-	Excellent performance	3.7
B+	Above average performance	3.3
B	Above average performance	3.0
B-	Above average performance	2.7
C+	Above average performance	2.3
C	Average performance	2.0
C-	Below average performance	1.7
D+	Below average performance	1.3
D	Below average performance	1.0
D-	Below average performance	0.7
E	Failure	0.0
I	Incomplete	N/A
W	Withdrawal	N/A
AU	Audit	N/A

CR	Transfer Credit	N/A
R	Registrar Grade	N/A
S	Satisfactory	N/A
SA	Satisfactory - Grade A	N/A
SB	Satisfactory - Grade B	N/A
SC	Satisfactory - Grade C	N/A
SD	Satisfactory - Grade D	N/A
U	Unsatisfactory	N/A

The number of **honor points** received for a course is determined by multiplying the honor point value of the course by the number of credit hours. Therefore, a grade of B in a 4 credit-hour course is 12 honor points (3 x 4).

A **grade point average** is obtained by dividing the total number of honor points by the total number of credit hours graded. For example, a total of 32 honor points earned in a semester by a student enrolled for 16 credit hours equals a grade point average (GPA) of 2.00 for that semester.

TRANSCRIPTS

Unofficial transcripts are available online via myKirtland at www.kirtland.edu. Students can print an unofficial transcript by logging into myKirtland, then selecting "Course History" link.

Official transcripts are available from the records office in student services at no charge. Official transcripts include the college seal and are sent directly from Kirtland to the college, employer, or other location the student indicates. Unofficial transcripts do not have the college seal and can be given to the student.

A student requesting a transcript must do so in writing, include his/her student identification number and/or Social Security number, signature, and to whom and where (including address) the transcript is to be sent. Transcript requests can be sent by fax to (989-275-6789) and, if a FAX number is provided by the student, an unofficial copy may be faxed to another location.

NOTE: No transcripts will be issued to any student who has not met all of his/her financial obligations to Kirtland.

STUDENT RECORDS

In addition to academic transcripts, students' records are maintained by the records office in student services. A student record may include the application for admission, high school transcript, other college transcripts and the transfer credit evaluation, test results, correspondence, student progress reports, and other student information. Students may review their own student record any time during office hours with proper identification.

PROGRESS REPORTS

A progress report is initiated by an instructor to notify a student of poor academic performance or lack of attendance in the instructor's course. Starting in the Summer 2009 semester, students will receive the progress report via their Kirtland email account. The progress report is forwarded to the appropriate student services offices. An electronic copy will be kept in student services.

STUDENT ATTENDANCE POLICY

Students are expected to attend every class and laboratory period for which they have registered. Regular class attendance is necessary for students to receive maximum benefits from their classes. Excused absences for participation in authorized campus activities shall in no way lessen student responsibilities for meeting the requirements of the class. Excessive absence may affect financial aid awards.

Regular attendance is expected of each student in each course. Instructors are required to determine reasonable attendance and satisfactory academic progress during the semester. Progress reports will be filed for students with poor attendance records. Financial assistance, whether Veterans Administration, federal and state grants and scholarships, student loans, work-study, or private funding, may be cancelled or reduced if attendance is unsatisfactory.

Since attendance is a legitimate basis for grading by instructors, students will receive progress reports for lack of attendance (see "Progress Reports"). If absent from class, students should explain the reason for their absence to their instructors.

INCOMPLETE GRADES

A student may request an incomplete (I) grade when he/she has found it impossible for reasons beyond his/her control to complete all required course work by the close of the semester. Upon the instructor's discretion, an incomplete grade may be granted.

If granting an incomplete grade, the instructor shall submit an Incomplete Grade Request form to the records office. If the course work is completed within the period prescribed by the instructor, the incomplete grade will be changed to the letter grade the student has then earned. If course work is not completed within the prescribed period, the incomplete grade will be changed to a failing grade.

WITHDRAWAL FROM COURSES

Students may withdraw from courses for which they are registered.

FULL SEMESTER COURSES
If a withdrawal is made before or on the census date for the semester, no grade will be recorded. However, for withdrawals made after the census date and through the twelfth week of the semester or through the eighth week of the summer semester, a grade of "W" will automatically be issued.

SHORT COURSES (Courses that are scheduled for less than a full semester)
A withdrawal must be made before the final exam is issued for the course. If a withdrawal is made on or before the census date for the course, no grade will be recorded. However, for withdrawals made after the census date of the course, a grade of "W" will automatically be issued.

FLEX COURSES
A withdrawal must be made before the final exam is issued or before the coursework is completed for the course. If a withdrawal is made before the course begins, no grade will be recorded. However, for withdrawals made after the course begins, a grade of "W" will automatically be issued.

Generally, a withdrawal from a course is the student's option. However, students who are enrolled in a program that has additional requirements may be required to withdraw from a course by their program advisor. As part of a disciplinary action, following due process, an "administrative withdrawal" may be authorized by the dean of student services.

WITHDRAWAL FROM COLLEGE

Students withdrawing from all classes (withdrawal from college) shall follow the same procedure as withdrawal from courses.

ACADEMIC PROBATION AND ACADEMIC DISMISSAL

Good academic standing is a status achieved by students who have an earned a cumulative/career grade point average (GPA) of 2.0 and above. Cumulative/career credit hours attempted/graded and cumulative/career GPA will determine a student's good academic standing, probation, and dismissal status. The following schedule reflects probation and dismissal status:

0-5 Cumulative/Career Credit Hours Graded
Probation Status: None
Dismissal Status: None

6-11 Cumulative/Career Credit Hours Graded
Probation Status: 0.00-1.99
Dismissal Status: None

12-17 Cumulative/Career Credit Hours Graded
Probation Status: 1.00-1.99
Dismissal Status: 0.99 or less

18-23 Cumulative/Career Credit Hours Graded
Probation Status: 1.26-1.99
Dismissal Status: 1.25 or less

24-29 Cumulative/Career Credit Hours Graded
Probation Status: 1.53-1.99
Dismissal Status: 1.52 or less

30-Plus Cumulative/Career Credit Hours Graded
Probation Status: 1.80-1.99*
Dismissal Status: 1.79 or less

NOTE: *Should the student not show academic progress (increasing cumulative/career GPA toward a 2.00) after completion of the next enrolled semester/session, he/she will be dismissed.

If a student is dismissed from the college and wishes to re-enter, he/she must submit an Application for Reinstatement form to the director of guidance and counseling for permission to re-enter as **a limited probationary student**. If permission is granted, the student will be allowed to reenter with enrollment restrictions as stated in a signed contract between the student and the director of guidance and counseling. Any adjustments to the limited probationary student's schedule must be approved by the director of guidance and counseling.

A limited probationary student will be dismissed again from the college if he/she is not showing academic progress (increasing the cumulative/career grade point average toward a 2.00), or if he/she does not meet all requirements as listed in the contract. Students being dismissed for a second time will automatically be required to sit out at least one semester.

Students being placed on academic probation or academic dismissal will be notified of their status by letter. The letter will be from the dean of student services.

ACADEMIC AMNESTY

Kirtland Community College understands that a student may "get off to a bad start" due to circumstances beyond his/her own control. Also, a student may enroll in a program that he/she later finds does not suit his/her needs. Both situations may result in a student experiencing poor academic performance. Academic amnesty is an action of forgiveness provided to certain students who have experienced poor academic performance at Kirtland Community College. Through academic amnesty, a student will be awarded a "second opportunity" to achieve success at Kirtland by removing the negative effect of less-than-C grade courses on the student's academic transcript.

To be eligible to apply for academic amnesty, a student must meet the following criteria:

1. Have a cumulative grade point average (GPA) of less than 2.00.
2. Complete at least six credit hours or more toward a new program of study while maintaining a 2.00 GPA or higher since beginning the new program.
3. Allowed one year to elapse between the poor academic performance period and requirement #2.

Once eligible, a student may petition the academic amnesty committee by requesting an Application for Academic Amnesty form from the counseling office, completing it, and returning it to that office. The applicant must meet with the director of guidance and counseling and agree to the conditions of academic amnesty.

The academic amnesty committee will review all requests for academic amnesty. Academic amnesty will only be granted for one continuous period of enrollment in a program at Kirtland Community College, as indicated by courses taken by the student that are directly attributable to that program.

Once amnesty has been approved by the committee, and applied by the registrar to the student's (petitionee's) transcript, the student will not be permitted to rescind the application of amnesty on his/her academic record. Other conditions include the following:

1. No course work will be removed from a transcript.
2. A special notation explaining amnesty approval will be placed on the student's transcript.
3. Honor points and credit hours attempted during the amnesty period will be subtracted from the current cumulative honor points and credit hours attempted. A new cumulative grade point average will then be established.
4. Courses successfully completed with a grade of C or better during the amnesty period can be used toward the student's certificate or degree requirements but do not count toward the student's GPA.
5. A student receiving academic amnesty will not be allowed to graduate with honors.
6. Academic amnesty, when granted, applies only to Kirtland Community College courses. There is no guarantee, expressed or implied, that academic amnesty will be recognized by any other college or university.

7. Academic amnesty can be granted only once to any student.

The registrar has the responsibility of implementing amnesty, as stated in the academic amnesty policy, when it is granted to a student.

CREDIT BY EXAMINATION

Students who believe they have achieved the equivalent knowledge and/or skills of a particular Kirtland Community College course may choose to take a competency credit examination.

A Kirtland student may request credit by examination by using the following procedure:

1. Contact the counseling office for a list of nationally recognized standardized tests that are equivalent to the Kirtland course the student desires. Information regarding testing fees and date, time, and location of the testing will also be provided to the student.

2. If a nationally recognized standardized test is not available, the student may contact the dean or associate dean of his/her program for an Institutional Credit by Examination Request form and the cost for the testing. The student will complete and submit the form to the senior instructor in the subject area of the examination requested. The instructor will review the request and submit his/her recommendation back to the dean or associate dean, who may approve or disapprove the request. If approved, a test will be developed, and testing will be scheduled.

3. Credit by examination scores will be handled in the following manner: If a passing score is achieved, credit will be noted on the student's Kirtland transcript. Cumulative grade point average, credit hours attempted, and honor points will not be affected.

COURSE SUBSTITUTION

Certificate and degree program requirements are listed in the college catalog. These requirements include all courses needed for completion. Any alteration to a degree or certificate (substitution of one course for another) must be made in the following manner:

1. To initiate a course substitution, a student must meet with his/her advisor. During the meeting, a Course Substitution Request form must be completed by the student and the advisor. The student's advisor will forward the form to the dean of instruction for possible approval. If approved, the form will be sent to the records office and placed in the student's file.

2. Required courses within a program may only be substituted under very unusual circumstances. No class may be substituted for POL-10100, Introduction to American Government.

3. Course substitutions should be submitted and approved before the student's registration for the semester in which the course substitution is to be made. If a student has received credit for courses transferred from another institution and desires a course substitution of the transfer credit for a required course, approval should be gained during the student's first semester at Kirtland.

GRADUATION REQUIREMENTS

Each candidate for graduation must fulfill the following requirements for an associate degree or certificate of completion:

1. Be granted admission to Kirtland Community College

2. Have completed a minimum of 15 semester hours of credit (100-level or above) at Kirtland

3. Have earned a minimum cumulative grade point average of 2.00 at Kirtland

4. Have completed all program requirements as listed in Kirtland's college catalog

   NOTE: The date of the catalog by which a student's credits are audited for graduation may not be more than four years earlier than the date of the issuance of the degree or certificate. Student records may not be audited by a catalog dated earlier than the time of entrance. Exceptions may be authorized by the dean or associate dean of the student’s program.

6. Have filed a Request to Graduate form with the records office at the beginning of the semester in which they plan to finish their required course work. Students should also check with their advisors when they register for that semester to be sure that all requirements have been met.

Graduation (commencement) ceremonies for students completing associate degree and certificate programs are held once a year on the last Friday of the winter semester. Participation in the graduation ceremonies is strongly encouraged, but not required. Cap and gown for graduation must be ordered before March 1. For more information about graduation fees, contact the Records/Registration office.

Students not wanting to participate in the ceremony, but who want a copy of their diploma, may contact the records office at 989-275-5000, extension 251, for ordering information. Payment must be received before a diploma will be ordered, then mailed to the student.

ACHIEVING SUCCESS

EXPLORING EDUCATIONAL CHOICES

COUNSELING SERVICES

College is a time of many changes and decisions and at times students may feel the need for help in coping with those changes and making those decisions. Kirtland's staff of Michigan-licensed professional counselors is trained to help students deal with the college experience.

Services provided include the following:

- Personal, career, and academic counseling
- Academic advising to assist a student in completing his/her educational plan, including transferring to another college
- Administering and interpreting interest and personality test instruments for students seeking career and educational information (no charge)
- Administering standardized tests for college credit (proctor fee and test publisher fee charged)
- Referral information for other available counseling services

Personal Counseling is helpful in situations where problems are persistent and bothersome to the point that discussion with another person is needed. Personal counseling on campus is available through the counseling office. Long-term counseling is available through referral to community agencies that provide this service. The college maintains a referral list of local crisis centers and mental health clinics qualified and available for personal counseling.

CAREER AND EMPLOYMENT SERVICES

The career and employment services office, which is located in the administration center, offers a wide variety of services to individuals who desire assistance with career planning and preparation. Help is available with career exploration, job search strategies, résumé/cover letter writing, interviewing techniques, and employability skills. A number of resources are available in the form of books, magazines, videos, computer programs, and Internet access.

For individuals seeking employment, numerous job search resources are located on the Internet at http://kirtland.edu/employ. The Job Bulletin Board contains positions that employers have listed with the career and employment services office. Links to area newspapers and popular job search sites are available. Students may also check the career and employment services bulletin board in the administration center for other job opportunities.

Career counseling is available to help determine employment possibilities based on an individual's abilities, aptitudes, and interests. Career assessments are available to assist with making sound career decisions. All of these services are free and available to students and community members.

NONTRADITIONAL CAREER CHOICES

If a student is considering a career field in which his or her gender comprises less than 25% of the workers in the field, there may be funds available to assist in paying for educational-related expenses. For more information, please call 989- 275-5000, extension 252. Examples of nontraditional areas for males are cosmetology, nursing, and office information systems. Nontraditional areas for females include automotive, engineering design technology, and welding.

SERVICE LEARNING

Service learning combines relevant community service experiences with academic courses. Service learning activities are academically meaningful. Kirtland Community College offers four courses as part of its commitment to service learning: Volunteerism in the Community (CAR-11500), Learning Styles (CAR-11600), Service Learning Lab (CAR-12600), and Service Learning Project (CAR-20000). Service learning projects are also offered as part of some classes at Kirtland. Seminars and classes relevant to service learning issues will also be offered through the Community Education Center. Additional service learning opportunities are tracked and made available by contacting the service learning coordinator at 989-275-5000, extension 412. A Service Learning Library has been established as part of the main collection in the library. A bibliography of material available in this collection is available.

PREPARING TO TRANSFER (From Kirtland to the senior institution)

Transfer students need to be aware of all deadlines, such as payment for tuition and fees, residence hall reservations, financial aid and scholarships, placement testing, etc.

Admission

Transfer students must apply early for admission to the senior institution they have selected. An application fee may be required. Many schools have application deadlines, as well as a limit on the number of new students to be admitted. To assist transfer students, representatives from many universities and some private colleges visit community college campuses every semester to talk with transferring students about their college or university.

A certain cumulative grade point average earned at the community college and/or the SAT or ACT test will usually be admission requirements at senior institutions. There may also be additional admission or program requirements. For example, a specific program may have Fall admissions only.

Financial Aid

Students transferring during the current academic year will need to have a duplicate copy of their Student Aid Report (SAR) forwarded to the college/university. Transfer students should check with their new financial aid advisor to determine what other information may be required.

Transfer scholarships to senior institutions may be available to students transferring from a community college. Scholarship application deadlines usually fall between December and March each year.

NOTE: Some schools have separate scholarship application forms.

Campus Visit

Before transferring, students should visit the institution to which they plan to transfer, preferably during daytime campus hours. When visiting the campus, it is important that students talk to an advisor in their program of study.

Student Housing at the Senior Institution

Students in need of off-campus housing at the school to which they will be transferring should start looking at least four to five months in advance for the best selection. Most senior institutions have on-campus or family housing available. In some cases, transfer students must qualify to live off-campus.

Transferring Credit

Students must submit a written request for an official copy of their Kirtland transcript from the Records/Registration office. This copy must be sent directly from the Records/Registration office to the college or university of their choice. Upon the student's admission, the senior institution will perform a credit evaluation of his/her transcript.

When students transfer to a senior institution that operates on terms or quarters rather than semesters, they need to be aware of possible credit hour differences. For example, two (2) semester credits = three (3) term or quarter credits.

MACRAO Transfer Agreement

Kirtland Community College is a participating member of the MACRAO Transfer Agreement. Member colleges and universities participate in a state-wide transfer agreement proposed by the Michigan Association of Collegiate Registrars and Admissions Officers (MACRAO).

The intent of the MACRAO Transfer Agreement is to ensure that a student who completes a transfer degree will have satisfied the basic two-year requirements of the four-year college or university. This agreement can also be fulfilled if a student completes the following 30 credit hours of course work (100-level or above):

A. English composition - 6 credits

B. Science and Mathematics - 8 credits
(Courses may include but are not limited to the following: biology, chemistry, geology, mathematics or physics. At least one course must have a laboratory. Courses taken must be in more than one subject area.)

C. Social Science - 8 credits
(Courses may include but are not limited to the following: anthropology, economics, geography, psychology, political science, or sociology. Courses taken must be in more than one subject area.)

D. Humanities - 8 credits
(Courses may include but are not limited to the following: art, foreign language, history, literature, music, philosophy or theatre. Courses taken must be in more than one subject area.)

Transcripts of Kirtland Community College students graduating with a transfer degree will automatically have the "MACRAO Agreement Satisfied" designation added to the end of their transcript. Students just completing the 30 credit hour program, as stated above, **must request** that the designation be added to their transcript. Please contact the student services office for more information.

NOTE: Not all credits that are considered transferable to a senior institution's general education requirements may be used for specific programs of study. Students must be careful in researching credit transferability. More information regarding MACRAO can be obtained at MACRAO's website: www.macrao.org

For additional information regarding transferring, go to www.kirtland.edu/ss/transferfrom.htm

SUPPORTING ACADEMIC SUCCESS

LEARNING RESOURCES

Library

The library serves the information needs of the Kirtland community and the public in the Kirtland service area. These needs are met by a professional staff who are able to help patrons find information in a variety of formats, including print and electronic. Reference services are available in-house, by phone, or email. In-depth reference assistance for term papers, speeches, and business plans, along with library instruction for classes and individuals, is available by appointment. For more information, call 989-275-5000, extension 246 or email the library at library@kirtland.edu.

Resources available in the library:
• a print collection of 30,000 volumes including books and reference materials
• over 23,000 e-books
• 500 audiobooks
• over 150 print magazines, journals, and newspapers
• access to more than 35 electronic databases
Information about the library's holdings may be viewed in the Kirtland Library website at www.kirtland.edu/library. Materials not available in the library may be obtained through inter-library loan. Internet connections and a variety of programs are available in the computer lab, which is also located in the library.

Open Hours for the Library

Fall and Winter Semesters
8 a.m. to 8 p.m., Monday through Thursday
8 a.m. to 4:30 p.m., Friday

Breaks and Summer Session
8 a.m. to 4:30 p.m. Monday through Friday

Term-Paper Counseling

Term-paper counseling is available in the library during library hours. This service helps students with topic selection and research. Stop in, call, or email the library for an appointment.

eServices Department

The eServices department, located in the library building, consists of the eLearning and eTechnology divisions. We provide a single point of contact for a wide range of services delivered via internet, telephone, or in person. Our services include network operations, telecommunications, computer maintenance/installation and technical support, audio/video dubbing, media services support, and system account maintenance for email, course delivery, and student information systems.

For more information on eServices, eTechnology, and eLearning visit our web site: http://eservices.kirtland.edu or if you have any questions please feel free to either email us eservices@kirtland.edu, or call 989-275-5000 ext. 499 Monday-Fridays 8:00 a.m. – 4:30 p.m.

- **eLearning**
  Primary responsibilities include support for distance education and technology enhanced courses including online internet classes, satellite video-teleconferences and interactive television. Additional duties include training and technical support for students and faculty using our course delivery system as well as maintenance of accounts for email, course delivery, and student information systems.

- **eTechnology**
  Responsibilities include support and maintenance of all networks, telecommunications, and personal computer systems including technology enhanced classrooms, computer labs, printers, media services. Additional duties include general software support and technical support or "helpdesk" services.

FACULTY ADVISING

Faculty advisors assist students prior to and during registration with the selection of classes to meet individual educational needs. Faculty advising assignments are listed in the class schedule by program of study. Faculty advisors are available throughout the year for consultation and assistance with academic problems that may be interfering with a student's progress (see "Faculty Office Hours"). Starting in Summer of 2009, all first time in any college students are required to see an academic advisor before they will be allowed to register for classes.

FACULTY OFFICE HOURS

All faculty maintain office hours. Students are encouraged to take advantage of this time for discussion of future class selection, academic problems, or class assignments. Faculty office hours are posted in the hallway outside the faculty office area in the instructional center.

TUTORIAL CENTER

Tutors are available in most subject areas, and tutoring is free for any Kirtland Community College student. Individual appointments can be scheduled for up to two hours per week for an entire semester (or for as long as tutoring is needed) at a time convenient to both tutor and tutee. In addition, the following services are offered:

- Drop-in Math Tutoring by a paraprofessional tutor and successful math peer tutors is provided to those students needing occasional help in math classes. Drop-in Math Tutoring is available Monday through Thursday from 9am – 4pm in Room 20, Instructional Building.
- Study groups (Supplemental Instruction or SI) are available for students in the same class who can benefit by studying together under the guidance of a student leader.
- Study skills workshops are available covering such topics as note-taking, test-taking, textbook reading and time management; help is also available with spelling and vocabulary building.
- Classes in English as a Second Language are offered through the tutorial center.
- Online writing tutoring is available through the OWL (see below).
- Software and videos are available for extra practice in math, English, and other subjects

Need for Tutors

Any student who is above average academically, can relate sensitively to other students, and has the recommendation of an instructor may apply to be a paid tutor. For an application or more information about becoming a tutor, contact the Tutorial Office in room 18 of the Instructional Building or call extension 211.

WRITING CENTER

The Writing Center is staffed by specially-trained members of the Kirtland English faculty and offers writing assistance to students seeking help with papers and writing projects. Drop-in services to help with specific questions or specific pieces of writing are available in the Writing Center, Room 17, in the Instructional Building, or appointments may be made. For further information, call extension 379 or 211.

An online writing service (similar to the on-campus drop-in services) is available through the Kirtland OWL (Online Writing Lab) located at: owl@kirtland.edu Be sure to follow the OWL guidelines located at: http://kirtland.edu/tutoring/owl/owlguidelines.htm to ensure that your submissions are received with the required information.

STUDENT SUPPORT SERVICES

The college, with partial funding from the Michigan Department of Labor and Economic Growth, provides support services to meet the needs of certain populations. Members of special populations include students who are economically or academically disadvantaged, students with disabilities, those with limited English proficiency, single parents (including single pregnant women), displaced homemakers, and students who are pursuing careers that are nontraditional for their gender. Support services and assistance to help them reach their career goals include the following:

- Education Development Plan (EDP)
- Personal, career, and academic counseling
- Referrals to other departments or community agencies
- Attendance costs
- Services for students with disabilities

SERVICES FOR STUDENTS WITH DISABILITIES

Students who qualify for services are identified under Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. Students must provide the special populations office with documentation of disability from an appropriate licensed professional, such as a medical doctor, psychologist, or psychiatrist. Verification of disability forms and a request form for auxiliary aides or services, academic adjustment or other accommodations are available in the student support services office. Some examples of services and accommodations follow:

- Instructional accommodations—scribes, readers, sign language interpreters
- Testing adaptations—extended time, oral examinations
- Technological assistance—wireless amplification devices, a reading machine
- Liaison with Michigan Rehabilitation Services and Michigan Commission for the Blind.

STUDENT ASSISTANCE PROGRAM

Kirtland Community College's Student Assistance Program has been developed in response to U.S. Department of Education directives and through the cooperation of local health care agencies. The program is designed to provide Kirtland students with help in dealing with emotional, medical, social, family, alcohol and/or drug abuse problems. Since such problems are considered treatable, students are urged to seek help before personal problems seriously damage academic performance or the future quality of their life.

The Student Assistance Program can help by:

- Providing the opportunity to discuss a personal situation with a caring professional
- Offering referral information on local agencies or specialized treatment services
- Suggesting a local support group sharing the same concern
- Providing information on the use and abuse of drugs including alcohol
- Providing information on how to deal with emotional, medical, social, or family problems

For a copy of the Student Assistance Program brochure, contact Kirtland's director of guidance & counseling at 989-275-5000, ext. 280.

RECOGNIZING EXCELLENCE

SCHOLARSHIPS

Scholarships that recognize academic excellence are available for both new and returning students. Please refer to "Scholarships" in this catalog.

HONORS PROGRAM

The Kirtland Community College Honors Program provides enhanced educational opportunities for academically talented students in both general education and occupational programs. Membership in the Kirtland Honors Program brings the honors student significant benefits:

Educational Benefits
Honors students at KCC pursue an enhanced honors curriculum distinguished, on the whole, from the regular curriculum by an emphasis on the following features:

- Highly qualified students.
- Stimulating course design and course work.
- Emphasis on participatory classroom styles.
- Challenging work than in comparable classes within the regular curriculum.
- Team or group teaching.
- Emphasis on primary, as opposed to secondary, source materials.
- An interdisciplinary focus.
- An element of independent study.
- Transcript recognition of completed honors course work.
- Honors certificate or degree, upon completion of requirements.
- Recognition at graduation ceremonies, including a medallion.

Applications are accepted throughout the year, but students are admitted only at the beginning of the fall and winter semesters. For more information contact the Honors Program office at 989-275-5000, ext. 359

HONOR LISTS

Each fall and winter semester, a President's honor list and dean's honor list will be issued. The President's and dean's honor lists shall consist of names of full-time (12 or more credit hours earned, excluding developmental courses) students whose current/term grade point averages are 3.800 to 4.000 (President's list) and 3.400 to 3.799 (dean's list) at the time grade reports (see "Grade Reporting System") are processed.

Credits earned in developmental courses will not be used when determining a student's full-time status. In addition, students receiving an incomplete grade ("I") for the semester will not be considered for either list. (However, honors notations will be posted to transcripts when completion of "I" grades results in grade point averages that meet honor list criteria.)

GRADUATION HONORS

Students may graduate with honors from Kirtland Community College providing they have met the following criteria:

- Completed all the requirements needed for a certificate or an associate degree
- Earned at least 15 credit hours at Kirtland if receiving a certificate or associate degree
- Achieved the cumulative grade point average (determined by the last completed semester) required for one of the following honors:

3.800-4.000 cumulative GPA	Summa Cum Laude
3.600-3.799 cumulative GPA	Magna Cum Laude
3.400-3.599 cumulative GPA	Cum Laude

The registrar will review transcripts of all candidates for graduation. Authorization to wear honor cords will be given by the registrar to candidates who have achieved a minimum cumulative grade point average of 3.40 prior to the semester in which commencement ceremonies are held. The commencement program will list candidates who have been authorized to receive the honors. Final grades will determine the honors appearing on the student's transcript and diploma.

PHI THETA KAPPA, ALPHA OMICRON GAMMA

Phi Theta Kappa is the official International Honor Society for students enrolled in two-year colleges. Since 1918, it has recognized academic excellence by inducting more than 1.2 million members at over 1,200 colleges in the United States, U.S. territories, Canada and Germany.

The members of Kirtland Community College's chapter, Alpha Omicron Gamma, engage in projects and services which provide opportunities for individual growth and development. This is achieved through programs based on Phi Theta Kappa's four hallmarks of Scholarship, Leadership, Service and Fellowship.

Membership in Phi Theta Kappa is based upon academic achievement. Invitation to membership is extended to students who have completed 12 credit hours, 100-level or above, with a minimum cumulative grade point average of 3.5.

For more information about membership in Kirtland Community College's local chapter, Alpha Omicron, contact Terry Geary at 989-275-5000, ext. 359, or email at gearyt@kirtland.edu. Additional information about Phi Theta Kappa can be obtained at the following web site address www.ptk.org.

GETTING INVOLVED

STUDENT ACTIVITIES

The college encourages student activities that supplement the instructional program by providing recreational activities that will add to the student's enjoyment of life and stimulate personal growth and social development. Opportunities for development of constructive leadership, cooperative planning, and special interests will be fostered through participation in student activities.

Cultural events include lectures, films, art exhibits, and concerts made available by the college. Students interested in art, drama, and journalism may further their experiences, training and talents in art shows, theatre productions, and newspaper production. Some clubs also sponsor activities.

STUDENT I.D. CARD

Identification cards are available for all registered Kirtland students. The careers in emergency services office in the administration center will issue cards upon request to all students who register for classes. The identification cards are nontransferable and are valid for one semester. The card permits the student's entry to many college- or student-senate-sponsored functions at no charge or at a reduced rate. The card is also used for checkout privileges for borrowing recreational equipment from the game room (see "Game Room"). In addition, some area businesses offer student discounts to cardholders.

STUDENT SENATE

The student senate is the student government organization at Kirtland. The senate is the means through which students can participate in institutional governance by representation on college standing committees. Also, senate members assist in planning a variety of extracurricular and co-curricular activities held throughout the year.

The officers and senators who comprise the student senate are elected each year by the student body. Senate meetings are held regularly during the year and are announced on the monitors located around the campus. These meetings are open to all who are interested. For a copy of the senate's constitution, for a petition for nomination, or for other information, contact the student senate office or student services.

STUDENT CLUBS AND ORGANIZATIONS

There are many special interest clubs and organizations that offer opportunities for students to broaden the scope of their educational experiences. Students are encouraged to participate in the activities sponsored by the clubs and organizations listed or to contact any member of the student senate, or faculty members, with suggestions for forming new organizations. Membership in all organizations is open to any interested student.

Establishment of Student Clubs and Organizations

No student club or organization may be established, conduct business, solicit funds, or sponsor activities unless the organization has been approved by the student senate and has been authorized by the college. Students who wish to form a student organization should contact the student senate at 989-275-5000, extension 288.

GAME ROOM

Pool and ping pong tables, foosball and air hockey machines are located in the game room in the student center.

KIRTLAND CENTER FOR THE PERFORMING ARTS

Kirtland Center for the Performing Arts exists as the cultural and entertainment establishment at Kirtland Community College.

Performing Artists Series present a variety of performing arts events catering to the diversity of interests among the members of the Kirtland Community College service district and beyond. The Performing Artists series annually brings world-class entertainment to the campus of Kirtland Community College.

Kirtland Youth Theatre presents an annual youth theater series that introduces the students of the area to live performing arts including Theatre, Music and Dance in a theatre setting.

Kirtland Community Theatre annually produces plays/dinner theatres using Kirtland Community College area citizens. Performances are taken into the communities and/or performed in the Performing Arts Center.

The Kirtland Center for the Performing Arts offices including Ticket Office is located in the Career Technical Center (CTC) building on campus, room 110.

For more information on scheduled events, tickets and/or becoming a Kirtland Center volunteer, please call 989-275-6777.

SERVICE LEARNING

Service learning combines relevant community service experiences with academic courses. Service learning activities are academically meaningful. Kirtland Community College offers four courses as part of its commitment to service learning: Volunteerism in the Community (CAR-11500), Learning Styles (CAR-11600), Service Learning Lab (CAR-12600), and Service Learning Project (CAR-20000). Service learning projects are also offered as part of some classes at Kirtland. Additional service learning opportunities are tracked and made available by contacting the service learning coordinator at 989-275-5000, extension 412 or through the website at: http://kirtland.edu/service .

A Service Learning Library has been established as part of the main collection in the library. A bibliography of material available in this collection is available.

Students interested in community service opportunities can visit: http://kirtland.edu/service/db for a database of service options.

SAFETY, SECURITY, AND EMERGENCIES

DEPARTMENT OF PUBLIC SAFETY

The personal safety and security of those on campus are the primary concerns of the department of public safety. The goal is to ensure a safe environment in which all of the campus community members can work and learn. In order to attain this goal, cooperation is needed. Members of the campus community must take responsibility for the safety and security of themselves, their neighbors, and their belongings.

PUBLIC SAFETY SERVICES

The department of public safety is located in room 127 in the administration center. Office hours are 8 a.m. to 11 p.m., Monday through Friday. Public Safety services include:

- After-dark escort service from the buildings to students' vehicles
- Response to criminal behavior complaints
- Preventative workshops/seminars on drug/alcohol awareness, rape awareness, use of weapons, etc.
- The addressing of parking and traffic violations
- Provision of vehicle emergency assistance (keys locked inside of vehicle, jump-starting vehicle, etc.)

CRIME REPORTING

If anyone witnesses a crime or is a victim of any criminal activity, he or she should take immediate action by contacting the public safety office at extension 355 or by contacting the Roscommon County Sheriff's Department at 911.
NOTE: Upon request, data can be obtained from the department of public safety or the student services office regarding incidents reported, during 2005/06.

PARKING AND TRAFFIC ON CAMPUS

Through enforcement of parking and traffic policies, it is Kirtland's desire to provide a safe means for entry and departure from campus lots. It is also hoped that fire, safety, and maintenance vehicle access lanes, handicap spaces, and loading/unloading opportunities can be provided with the least amount of inconvenience.

Parking on campus is free and allowed in approved areas only. Parking is not allowed in fire lanes, on or beside walking paths, on grass, or next to buildings. In addition, parking in the lot adjacent to the career technology center is reserved for patrons of automotive and cosmetology services. Students should park in designated areas only. A Vehicle Identification sticker is required. Students should call 989-275-5000, extension 348, for more information.

Parking spaces for service vehicles and the handicapped are posted. A permanent or temporary handicapped sticker from the Secretary of State's office is needed to park in the handicapped areas.

Parking and traffic violators on campus will be ticketed by Kirtland's public safety officers. The following fines are imposed on violators:

$40.00 Parked in handicap space	$25.00 Parked within 15 feet of fire hydrant	$25.00 Blocking emergency exit
$25.00 Parking in fire lane	$10.00 All other parking violations	

FIRE SAFETY AND FIRE ALARMS

Students and employees of the college are encouraged to know where fire alarms, fire extinguishers, and emergency exits are located in each building.

If a fire alarm sounds, get **out of the building**! Treat all fire alarms as real, even if there is reason to believe the alarm is a false alarm. Do not reenter the building until given permission to do so by college officials.

NOTE: A false alarm is dangerous and a felony. Anyone sounding a false alarm will receive the minimum sanction of suspension from college.

POLICY ON USE OF ALCOHOL/DRUGS

Unauthorized possession or use of alcoholic beverages on the college campus or at a college-sponsored event, and use, possession, or distribution of narcotic or other dangerous drugs (including look-alike drugs) are strictly prohibited. Violation of these regulations could lead to removal from college property, suspension, or dismissal from the college, and/or liability for legal prosecution.
NOTE: For a more detailed position on the possession/use of illicit drugs and alcohol, please refer to "Rights and Responsibilities of Students" and "Student Code of Conduct" sections in this catalog.

POLICY ON WEAPONS (FIREARMS, KNIVES, EXPLOSIVES)

Possession or use of knives (blade in excess of 3-1/8 inches), firearms, firecrackers, explosives, other lethal weapons, and/or toxic or dangerous chemicals on campus or at any college- sponsored events, unless specifically authorized in writing by a college administrator for educational/safety purposes, is prohibited. However, possession in a locked vehicle may be permitted according to state laws. Law enforcement officers are exempt from this policy.

CAMPUS SAFETY AND SECURITY

The campus is nestled in a beautifully wooded setting. The surroundings are tranquil and peaceful. Yet, although Kirtland is a relatively safe place to be, it is certainly not exempt from many of the same crime problems that exist in the surrounding communities. Kirtland has implemented measures to promote safety awareness and strives to ensure that the campus is a safe environment for the campus community. The department of public safety in room 127 in the administration center can provide more information about the ways Kirtland works toward this goal.

CAMPUS CRIME OCCURRENCE STATISTICS

The Crime Awareness and Campus Security Act of 1990 requires colleges to collect and share occurrence statistics for certain crimes reported as occurring on the college campus. Kirtland's on-campus occurrence statistics (reported offenses; does not infer alleged offenders were convicted) are listed below:

Reported Offenses	**2006**	**2007**	**2008**
Murder	0	0	0
Sex Offenses-Forcible	0	0	0
Sex Offenses-Non-forcible	0	0	0
Robbery	0	0	0
Aggravated Assault	0	0	0
Burglary	0	2	0
Motor Vehicle Theft	0	0	0
Arson	0	0	0
Any other crime involving bodily injury	0	0	0

Arrests	**2006**	**2007**	**2008**
Liquor Law Violations	2	0	0
Drug Abuse Violations	0	0	0
Weapons Possessions	0	0	1
Hate Crimes	0	0	0

NOTE: For more information regarding the college's compliance with the Crime Awareness and Campus Security Act of 1990, contact the director of criminal justice.

EMERGENCIES

Sometimes emergencies arise on campus that require the services of the fire department, county sheriff's office, Michigan State Police, or an ambulance. The services can be reached by calling extension 355 or 390. The public safety department can assist with these situations and refer them to the proper authorities. Battery jumps and assistance in unlocking car doors are performed by the public safety office and campus security.

ACCIDENT REPORTING

Students having an accident or needing medical assistance while on campus should call public safety office at ext 355.

CLASS CANCELLATIONS AND COLLEGE CLOSINGS

INDIVIDUAL CLASS CANCELLATION

When an instructor cancels a class it is immediately posted on the website in the Urgent Announcements section. You can view this at www.kirtland.edu and click on "Urgent Announcements + Class Cancellations". Cancellations are also posted in designated areas in the campus buildings, and you can call a local telephone number listed for your area to find out.

KIRTLAND CLASS CLOSING MESSAGES XXX-**1625**
(For example: in Houghton Lake you would call 910-1625)

Selected Area prefixes:

City	Prefix	City	Prefix	City	Prefix
Roscommon	563	Houghton Lake	910	Merritt	(231)219
Grayling	688	Gaylord	688	Lewiston	243
Atlanta	243	Hillman	419	Alpena	419
Oscoda	764	East Tawas	764	Hale	728
Fairview	333	Mio	333	West Branch	516
Rose City	507	Lupton	782	Alger	825
Prescott	676	Bay City	509	Saginaw	393

Local numbers for all areas are available at: http://www.m33access.com//contactlocalsupportnumbers.asp
under Access Numbers on the left menu. Enter your code and prefix or city and the system will provide local numbers for your use.
When classes are cancelled due to inclement weather or other unusual circumstances, the procedure below is followed.

MAIN CAMPUS CLASSES: When it is necessary to cancel classes due to inclement weather or other unusual circumstance, please DO NOT CALL THE COLLEGE. Announcements of college closings will be made on the radio and TV stations listed below. Visit the Kirtland website for urgent announcements such as class or event cancellations, room changes, or anything that is different than expected at: www.kirtland.edu.

MORNING CANCELLATIONS: In the event of a weather cancellation announcement stating that "The college is closed until noon," classes which begin at noon or later will meet as scheduled. Classes which start before noon will be cancelled.

EVENING CLASSES: Evening classes that begin at 5 p.m. or after, are cancelled both on and off campus.

SATURDAY CLASSES: Cancellations will not be announced on radio or TV. The decision to cancel a Saturday class will be communicated through a student telephone fan-out list that will be established in each class.

OFF-CAMPUS CLASSES: If the radio/TV announcement states that Kirtland classes are cancelled, that announcement includes Kirtland off-campus classes (Houghton Lake, Roscommon, Grayling, Mio, West Branch, Gaylord).

M-TEC[SM] AT KIRTLAND-GAYLORD CLASSES: Students should call the M-TEC weather line at 989-705-3696. A pre-recorded message will indicate whether or not classes are being held.

LOCAL SCHOOL CLOSINGS: If local schools which are sites of off-campus classes are closed due to inclement weather, Kirtland classes will also be cancelled at that site.

NURSING CLINICAL:

- Students having classes on campus should listen to the radio for campus closing announcements.
- Students scheduled for clinical sites will not hear announcements regarding clinical site closings on the radio. The instructor of the clinical site will decide the cancellation of a class and students will receive word by means of a predetermined clinical phone tree. (For more information, refer to the nursing student handbook.)

TV:
Cadillac WWTV - TV 9 & 10
Cadillac FOX 33
Bay City WNEM - TV 5
Traverse City WPBN - TV 7 & 4
Traverse City WGTU - TV-29

RADIO:

Houghton Lake	WHGR-WUPS	98.5 FM
Grayling	WGRY	101 FM
Grayling	WQON Kool	100 FM
Gaylord	WKPK	107 FM
Gaylord	WPHN	90.5 FM
Gaylord	WMJZ Magic	101.5 FM
Tawas City	WIOS-WKJC	104.7 FM
Tawas City	NEW BAY 108	107.3 FM
Traverse City	WTCM	103.5 FM
Alpena	WHSB	107.7 FM
Mt. Pleasant	WCMU (NPR)	89.5 FM
Alpena	WCML (NPR)	91.7 FM
Petoskey	WKHQ	96 FM
West Branch	WBMI	Kool 105.5

COLLEGE CLOSINGS

In the event of impending severe weather, prolonged utility failure, or any condition jeopardizing the safety or well-being of students, the college President may find it necessary to suspend classes or cease college operations until such threatening conditions are corrected. After such a decision has been made, radio stations within the college's district and service area will broadcast several announcements about the closing decision. For information, see the previous section entitled “Class Cancellations.”

PROTECTING STUDENT RIGHTS

STUDENT’S RIGHT TO KNOW

Upon request, the college is required to disclose the following information to both prospective and enrolled students:

Kirtland Community College recognizes the importance of maintaining records for all students in attendance. While a student's educational interests require the collection, retention, and use of information about the student, the student's right to privacy requires careful custodianship and limitations on access to education records. The maintenance and disclosure of student records by this institution are governed by state and federal law, particularly the Family Educational Rights and Privacy Act ("FERPA"), 20 USC 1232g, and its implementing regulations, 34 CFR 99.1 et seq. It is the purpose of this policy to protect the educational and privacy rights of students and to establish procedures for the disclosure of student records in compliance with the law.
The President of Kirtland Community College is responsible for implementing this policy. The President's duties include, but are not limited to: informing students of their rights under this policy, utilizing administrative resources to implement and enforce this policy, developing procedural guidelines for the proper collection, storage and disclosure of student records and informing employees of this policy and the procedures relative to student records.

DEFINITIONS
For the purposes of this policy, Kirtland Community College employs the following definitions:

EDUCATIONAL RECORDS
Any record (whether in print, handwriting, tape, film, computer, electronic, or other medium) maintained by the college, a college employee or agent, or a party acting on the college's behalf, which is directly related to a student. The term does not include the following:

1. Records (including notes and observations) kept by a staff member that are in his/her possession and are not available to another person, except a substitute.

2. Records created and maintained by Kirtland Community College law enforcement and security personnel for law enforcement purposes only.

3. Employment records which are made and used only in relation to a student's employment at Kirtland Community College.

4. Records made and maintained by a physician, psychiatrist, psychologist, or paraprofessional acting in his/her professional capacity, which are made, maintained, or used in connection with treatment of the student (which does not include remedial education) and are disclosed only to individuals providing treatment.

5. Records that only contain information about a student after he/she is no longer in attendance.

Student
Any person who attends or has attended a program of instruction sponsored by Kirtland Community College.

STUDENT RIGHTS
FERPA affords students enrolled in postsecondary institutions certain rights with respect to education records. Those rights include the following:

1. Right to Inspect: A student has the right to inspect and review his/her education records maintained by Kirtland Community College within 45 days of the school's receipt of a written request for access.

2. Right to Request Amendment: A student has the right to request the amendment of his/her education record(s) that are believed to be inaccurate or misleading. This right includes the right to a hearing to present evidence that the record should be revised. If a requested amendment is denied after a hearing, a student also has the right to place a statement in his/her educational record commenting on the challenged information.

3. Right to Consent to Disclosure: A student has the right to consent to disclosures of personally identifiable information contained in his/her education record, except to the extent that FERPA authorizes disclosure without consent.

4. Right to Complain: A student has the right to file a complaint with the U.S. Department of Education concerning alleged failures by Kirtland Community College to comply with FERPA requirements.

5. Right to Obtain Copies of this Policy: A student has the right to obtain copies of this policy upon request.

DISCLOSURE
Kirtland Community College will disclose information from a student's education record only with the written consent of the student, except that disclosures without consent may be made:

1. To school officials who have legitimate educational interest in the records. A school official is a person employed by Kirtland Community College in an administrative, supervisory, academic or research, or support staff position, including law enforcement unit personnel and health staff; a person or company with whom Kirtland Community College has contracted, such as an attorney, auditor, or collection agent; a person serving on the board of trustees, who is empowered by the board; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his/her tasks. A school official has a legitimate educational interest if he/she needs to review an education record to fulfill his/her professional responsibilities.

2. To officials of other schools where a student seeks or intends to enroll. (A student may obtain copies of records transferred).

3. To federal and state officials in connection with their duties to audit or enforce legal conditions relative to federal or state supported programs.
4. In connection with a student's request for or receipt of financial aid, as necessary to determine the eligibility for aid, the amount or conditions of the aid, or to enforce the terms and conditions of aid.

5. To state juvenile justice system officials as permitted by state law.

6. To organizations conducting certain studies for or on behalf of the college for the purposes of predictive testing, student aid, and instructional improvements.

7. To accrediting organizations to carry out their function.

8. To parents who claim the student as a dependent for income tax purposes.

9. To comply with a court order or lawfully-issued subpoena. The college shall make reasonable attempts to notify the student of such disclosure prior to disclosure.

10. To appropriate parties in connection with a health or safety emergency that threatens the health or safety of the student or other individuals. Additionally, Kirtland Community College has the right to include information concerning disciplinary action taken against a student for conduct that poses a significant risk to the safety or well-being of the student, other students, or school community members in the student's education record. Kirtland Community College may also disclose such information to school officials at the college and at other schools who have legitimate educational interests in the behavior of the student.

11. For designated directory information.

12. To the student.

13. To the alleged victim of a crime of violence (as defined by federal law), records of school disciplinary proceedings may be disclosed regarding the particular crime perpetrated against the victim.

SOLOMON AMENDMENT

In addition to FERPA, the Solomon Amendment requires that schools, upon request, provide the military with information on currently enrolled students for military recruiting purposes. For such requests, the following information can be released on students 17 years of age or older: name, address, telephone listing, date and place of birth, level of education, academic program, degrees received and the educational institution in which the student was most recently enrolled. Any future changes to the Family Educational Rights and Privacy Act of 1974 or the Solomon Amendment will be complied with by Kirtland Community College.

STUDENT NOTIFICATION

In order to comply with FERPA, Kirtland Community College shall publish a notice to students explaining their rights under FERPA and designating directory information which may be disclosed without consent. A statement regarding this notice will be published in the schedule and in the college catalog. If a student has a primary language other than English, Kirtland Community College shall endeavor to notify the student of his/her rights in the student's native language.

INSPECTION OF STUDENT RECORDS

A student may inspect and review his/her own education records upon written request submitted to the registrar. This request should precisely as possible identify the education record(s) the student wishes to inspect. If the records are not maintained by the registrar's office, the registrar shall advise the student of the correct official to whom the request should be addressed. The registrar or other school official will make arrangements for access as promptly as possible and notify the student of the time and place where the records may be inspected. Access must be given within 45 days from receipt of the request by the appropriate school official.

When a record contains information about students other than the requesting student, the student may not inspect the portion of the record that pertains to other students. In addition, a student does not have the right to inspect or review the following education records: financial records, including any information those records contain of his/her parents, and confidential letters/statements of recommendation as long as the statements are only used for their intended purposes, the student has waived his/her right to review those materials, and the materials relate to the student's admission to an educational institution, application for employment, or receipt of an honor or honorary recognition.

AMENDMENT OF STUDENT RECORDS

If a student, upon review of his/her record, would like to request or amend a record believed to be inaccurate or misleading, a written request should be submitted to the school official responsible for the record. This request should clearly identify the part of the record that the student wants changed and specify why it is inaccurate, misleading or in violation of the student's privacy rights. The school official may or may not comply with the request. If the record is not amended as requested by the student, Kirtland Community College shall arrange a hearing and shall provide the student with reasonable notice of the date, time and place of the hearing. The hearing will be conducted by a disinterested hearing officer; however, the hearing officer may be a school official. The student shall have the opportunity to offer evidence in support of his/her request for amendment. The student also has the right to be represented at the hearing. The hearing officer will prepare a written decision based solely upon the evidence presented at the hearing, which shall be distributed to the parties. The decision will include a summary of the evidence and a reason for the decision. If Kirtland Community College determines that the student's education record should not be amended, the student must be notified that he/she has the right to place a written statement in his/her education record setting forth objections to the challenged information and/or disagreements with the decision not to amend this record. This statement shall be maintained with the challenged portion of the student's education record and be disclosed with that record. If Kirtland Community College determines that the student's education record must be amended, it shall amend the record and notify the student that the record has been amended.

RELEASE OF INFORMATION

Kirtland Community College may release information from a student's education record to a third party if the student gives prior written consent for the disclosure. All requests for release of such information shall be made in writing. The written consent must include the following information: a specification of the record(s) to be released, the reason for disclosure, the person(s) or organization(s) to whom the disclosure will be made, the student's signature and the date of consent and, if appropriate, the date upon which consent terminates. Kirtland Community College will not disclose personally identifiable information in a student's education record to a third party unless that party agrees to redisclose the information only with the student's prior written consent.

RECORD OF DISCLOSURE

Kirtland Community College shall maintain an accurate record of all requests for access to, and disclosures of, a student's education record and a record of any access or disclosure permitted. The following procedures shall apply: this record will be kept with, but will not be part of, each student's educational record. This record will only be available to the student, college officials, and federal, state or local officials. This record will include the name of the requesting party, additional parties to whom the information may be disclosed, the party's interest in the information, the date of the request, whether the request was granted or denied, and the date of any access or disclosure permitted. This record will be maintained as long as Kirtland Community College maintains the student's education record. This record keeping requirement does not apply to requests by or disclosure to the student, school officials, a party with written consent from the student, a party seeking directory information, or a party seeking information pursuant to a confidential court order or lawfully-issued subpoena.

DIRECTORY INFORMATION

Under FERPA, Kirtland Community College is authorized to designate certain personally identifiable information contained in education records as "directory" information and may disclose such information without prior written consent unless a student objects to such disclosure.

Kirtland Community College designates the following personally identifiable information contained in a student's education record as directory information: student name, address, part-time/full-time status, freshman/sophomore status, program of study, weight and height of athletes, most recent educational institution attended, photographs, date of birth, participation in officially recognized activities and sports including positions held, dates of attendance, date of graduation, and degrees and awards received.

The following procedures apply to the notification and designation of directory information:

1. Kirtland Community College will publish in the schedule and college catalog the list of items of personally identifiable information that it designates as directory information.

2. A student may submit a Notification of Non-Disclosure form to the Registrar's office to indicate that he/she does not want this designated directory information released.

3. School officials shall mark the student's education record indicating that directory information may not be disclosed pursuant to the student's objection.

4. Absent written objection by a student, Kirtland Community College may release designated directory information without prior written consent.

5. The Notification of Non-Disclosure remains in effect only for the current semester and also applies to requests for information as defined under the Solomon Amendment.

In order to comply with the Solomon Amendment, Kirtland Community College will provide the available directory information of currently enrolled students to the military, for which a request should be submitted to the registrar's office at least two weeks prior to the end of the requested semester. A fee will be charged for this list and this fee will need to be collected prior to any information being disclosed.

FFEL/Direct Loan Deferments for Peace Corps or Volunteer Service

- Terms and conditions of deferments for service in the Peace Corps, service under the Domestic Volunteer Service Act of 1973, or comparable volunteer service for a tax-exempt organization of demonstrated effectiveness in the field of community service

Available Financial Assistance

- Description of all available federal, state, local, private, and institutional financial need-based and non-need-based assistance programs and, for each program, a description of application form and procedures, student eligibility requirements, selection criteria, and criteria for determining the amount of a student’s award
- Rights and responsibilities of students receiving Title IV and other financial aid

Institutional Information

- Cost of attending the school
- Any applicable refund policy
- Requirements for officially withdrawing from the school
- Summary of requirements for the return of Title IV grant or loan assistance by withdrawn students
- Information regarding school’s academic programs
- Entities that accredit, license, or approve the school and its programs, and procedures for reviewing school’s accreditation, licensing, or approval documentation
- Description of any special services and facilities for disabled students
- Title and availability of employee(s) responsible for dissemination of institutional and financial assistance disclosure information and how to contact designated employees
- Statement that enrollment in a study abroad program approved for credit may be considered enrollment at the school for the purpose of applying for Title IV assistance

Completion/Graduation Rates

- Completion or graduation rate of cohort of certificate or degree-seeking, full-time undergraduates who graduated or completed their program within 150% of the standard time for graduation or completion.

Campus Security Report

- Statistics for three most recent calendar years concerning the occurrence on campus, in or on non-campus buildings or property, and public property of certain offenses reported to campus security authority or local police.

Athletic Program Participation Rates and Financial Support Date

- Number of male and female full-time undergraduates
- Varsity teams that compete in intercollegiate athletic competitions
- Unduplicated number of students, by gender, who participated on at least one varsity team as of the date of the first scheduled contest

- Institutional revenues
- Total spent on athletically related student aid awarded to men and to women
- Aggregate total recruiting expenses for men's teams and for women's teams
- Average annual institutional salary of non-volunteer coaches of all men's teams and of all women's teams on a per person and per full-time basis
- Average annual institutional salary of non-volunteer assistant coaches of all men's teams and of women's teams on a per person and a per full-time basis

NOTE: While much of this information can be found in the class schedule and in the college catalog, a full report of disclosure information may be obtained at the following web site: www.kirtland.edu. (Kirtland Community College will also provide, upon request, a paper copy of the disclosure information.)

NONDISCRIMINATION

It is the policy of Kirtland Community College that no person shall, on the basis of race, color, religion, national origin or ancestry, age, sex, disability, physical proportions, sexual orientation, marital status, or genetic information be excluded from participation in, be denied the benefits of, or be subjected to, discrimination during any program, activity, service, or in employment. For information, or to register a grievance, contact the Director of Human Resources, Room 226 ADM Building, 10775 N St Helen Rd, Roscommon, MI 48653, 989-275-5000 x 271 or 239.

HARASSMENT

It is the policy of Kirtland Community College, consistent with its efforts to foster an environment of respect for the dignity and worth of all members of the college community, that harassment, in any form, of students, employees, or other individuals at Kirtland Community College is unacceptable and impermissible conduct which will not be tolerated. Harassment is any statement or conduct which constitutes an illegal quid pro quo (an unwelcome demand for an exchange of favors), or otherwise creates or fosters an intimidating, hostile, or offensive campus environment. Anyone facing an immediate physical threat should contact the department of public safety at extension 283 (emergency extension, 355). For more information, or to file a harassment complaint, please contact the business office, located in rooms 226 - 228 of the administration center, or call 989-275-5000, extensions 239 or 271.

Kirtland's policies on nondiscrimination and harassment are consistent with federal and state statutes that prohibit discrimination against employees and require fair and equal treatment of students, including Titles VII and IX of Civil Rights Act of 1964 and the Michigan Elliot-Larsen Civil Rights Act, 1976, which prohibit discrimination because of race, color, religion, sex, disability, marital status, age, height, weight, national original or ancestry, Vietnam-era veteran status, or other protected category under Michigan and federal law.

SMOKE-FREE LEARNING ENVIRONMENT

In compliance with state and federal law, Kirtland Community College has reduced exposure to tobacco products by taking the following steps:

1. Smoking or use of any tobacco products will be prohibited in all leased or owned college facilities.
2. Smoking or use of any tobacco products will be prohibited in vehicles owned, leased, or operated by the college.
3. Smoking or use of any tobacco products may occur no closer than 10 feet from outer door entrances. In some circumstances, other standards will apply and will be posted.
4. The sale of tobacco products will be prohibited on college premises.

The responsibility for implementing this policy lies with each individual in the Kirtland Community College community. Successful implementation requires the understanding, consideration, and cooperation of students, staff, and visitors to the campus.

DRUG-FREE LEARNING ENVIRONMENT

Kirtland Community College recognizes that the use of illicit substances is wrong and harmful to the physical, social, and emotional well-being of its students and directly affects their ability to learn, function, and be successful in school. Therefore, the college has adopted and implemented policies which promote drug prevention and education, and which prohibit the unlawful possession, use, distribution, or being under the influence of illicit substances by all students on school premises or as part of any school business, activity, or function. Specific information on standards of conduct, disciplinary sanctions, and other aspects of this policy are available in other sections of this catalog (please refer to the "Student Code of Conduct"), other appropriate publications, and from the counseling office. For more detailed information about drug and alcohol counseling, rehabilitation, and/or re-entry programs, please contact the counseling office.

PRIVACY OF STUDENT RECORDS
The college complies fully with the Family Educational Rights and Privacy Act of 1974, also known as FERPA, which is designed to protect the privacy of student educational records. For more information regarding the confidentiality of records or release of student information contact the records office located in the student services office in the administration building, or call 989-275-5000, extension 291. For details of the rights, please refer to “Student’s Right to Know” (page 32).

SOCIAL SECURITY NUMBER
The college asks for the student’s Social Security number at time of admission to verify identification. The college shall obtain social security numbers from individuals for a valid business purpose only, and shall ensure to the extent practicable the confidentiality of social security numbers in its possession. The college prohibits unlawful disclosure of social security numbers and prescribes limits on who has access to information or documents that contain social security numbers. Documents containing social security numbers shall be properly disposed of, and the college provides penalties for violation of the privacy policy.

For identification purposes, a college-wide unique identification number (UIN) will be individually assigned to all students, employees, and other associated individuals, such as contractors or consultants. The UIN will be considered a public piece of information. This UIN will be assigned at the earliest possible point of contact between the individual and the college. The UIN will be used in all electronic and paper data systems to identify, track, and service individuals associated with the college. It will be permanently and uniquely associated with the individual to whom it is originally assigned.

RIGHTS AND RESPONSIBILITIES OF STUDENTS
Kirtland Community College recognizes those enrolled in a course or program of study as being students and, therefore, members of the academic community. As members of this community, they are subject to the obligations which accrue to them by virtue of this membership. While enjoying freedoms of speech, peaceful assembly, right of petition, and the right of due process, all students are expected to conduct themselves in a manner that will reflect favorably on them, the community and Kirtland Community College.

Academic Freedom
The student in the classroom and in conference should enjoy free discussion, inquiry and expression. Student performance shall be evaluated on an academic basis, as defined in the syllabus for each course.

A. Protection of Freedom of Expression:
   Students shall be free, and be encouraged to offer opinions and insights in any course of study and be allowed to reserve judgment about matters of opinion expressed by the instructor or other students. Also, students are responsible for learning the content of any course of study for which they are enrolled.

B. Protection Against Improper Academic Evaluation:
   Students shall have protection through due process against prejudiced or capricious academic evaluation. At the same time, they are responsible for maintaining standards of academic performance established for each course in which they are enrolled. Students may use the procedures outlined under "Procedure for Academic Due Process" when a dispute over grades occurs.

Freedom of Assembly
No person or persons shall assemble in a manner which obstructs the free movements of persons about the college or the free normal use of the college buildings and facilities, or prevent or obstruct the normal operations of the college.

Right to Due Process
An individual charged with a violation of the student code of conduct has the right to due process. A student who is dissatisfied with an academic decision also has the right to due process. Due process at Kirtland Community College means that a student is assured that his/her rights as a student will be protected. Further, and specifically, a student has the right:

A. To be informed in writing of the specific charges and the grounds for such charges.

B. To have a chosen advisor or counselor or lawyer (at the student's own expense) present for advice before, during and/or after the hearing. The role of this individual is limited to an advisory capacity with no right of cross-examination.

C. To be present at the hearing, if desired.

D. To exercise the privilege against self-incrimination.

E. To hear or examine evidence presented to the committee reviewing the case and to present evidence by witnesses or affidavit of any defense the student desires. Further, the student shall be given the opportunity to cross-examine witnesses.

F. To be informed in writing of the Committee's recommendation to the appropriate dean.

G. To appeal the Committee's decision to the President.

H. To waive the right of a formal hearing before the Committee and to have the case heard by the appropriate dean.

Laws, Regulations and College Policy

Students shall obey the laws enacted by federal, state and local governments, as well as the policies and regulations of Kirtland Community College. If a student is charged with a misdemeanor or felony, the college will fully cooperate with civil authorities while recognizing the student's rights under the Family Educational Rights to Privacy Act ("FERPA").

Note: Under FERPA, an educational institution, including a community college, may not disclose personally identifiable information found in a student's education record to law enforcement officials, unless such disclosure is "to comply with a judicial order or lawfully issued subpoena." In such a situation, the college must make a reasonable effort to notify the parent or student of the order or subpoena in advance of compliance.

Student Code of Conduct

College student conduct expectations are essential to the establishment of an environment conducive to learning, to the protection of Kirtland Community College's educational purpose and to the maintenance of a reasonable level of order on the campus. The college strives to maintain these standards through educational programs, services to the students and the promotion of student conduct standards.

Enrollment as a student at Kirtland Community College carries with it behavioral obligations inside and outside the classroom. Students are responsible for obeying municipal, state and federal laws which govern the community, as well as for the rules and regulations of the college. If a student participates individually or as a member of a group in any of the "Forms of Misconduct" (listed below), he or she can be subject to disciplinary action. Further, sanctions may be imposed upon student groups or organizations, including the sanction of deactivation which entails the loss of all the privileges and/or college recognition for a specified period of time.
Generally, college jurisdiction and discipline shall be limited to conduct which occurs on college premises or which adversely affects the college community and/or the pursuit of its objectives. The student code of conduct is in effect for students while they are on any campus property, as well as other property in the possession of or owned, used or controlled by the college.

The code of conduct also applies to off-campus activities, such as field trips, off-campus classes and college-sponsored events. On a case-by-case basis, the dean of student services or the appropriate instructional dean will determine whether jurisdiction should be asserted to address the adverse effects of an off-campus activity.

A. Disciplinary Actions

Violations of the student code of conduct are subject to disciplinary action and will be given immediate attention by the college. The appropriate dean may impose any of the following disciplinary actions:

1. Warning: A "WARNING" is an official reprimand which expresses college dissatisfaction with the student's conduct and which clarifies expected behavior in the future. Such action is in effect for the duration of the semester in which the warning was issued. Normally, a warning does not include any restrictions. If the same offense is repeated after a warning is given, probation will be the minimum sanction awarded.

2. Probation: "PROBATION" status indicates that any violation of the code of conduct within the probationary period shall result in more severe disciplinary action against the student that could include suspension or dismissal from the institution. Usually, the probationary period extends for a specified period of time or until completion of a specific requirement.

Probation in itself does not carry with it any restrictions; but, in addition to probation, it is possible for a student to be expected to complete a work assignment, pay a fine or be prohibited from holding an office or representing the college in any activity.

3. Removal from a Course: If "REMOVAL FROM A COURSE" occurs, a student may continue to attend other classes, but may not resume attendance in the course from which he or she has been removed for the remainder of the semester in which the removal occurs. In the event a student is removed from a course, he or she will be given either a withdrawal or a failure in accordance with the college's "Withdrawal From Classes" policy.

4. Suspension: "SUSPENSION" is an action that separates the student from the institution for a definite period of time (days, weeks, semesters, etc.) and is to be appropriate with the circumstances of the violation. Such action will specify the conditions required for readmission, as well as the date the student will be eligible to return.

5. Expulsion: "EXPULSION" is an action that permanently separates the student from the institution.

6. Specific Orders: "SPECIFIC ORDERS" is an action which may stand alone or be issued with another sanction. Specific orders may include, but are not limited to, performance or non-performance of specific acts, loss of certain privileges, payment of fines, restitution and work assignments.

Any disciplinary action imposed on a student will be recorded in the student's confidential file in the student services office. A disciplinary action can not be recorded on a student's transcript.

B. Forms of Non-Academic Misconduct: The following forms of misconduct will not be tolerated by the college. Minimum sanctions, disciplinary actions, normally taken by the college are indicated in parenthesis following each violation. Note: This list is not inclusive of all possible forms of misconduct. The college's administration may add to this list if needed.

College disciplinary proceedings may be instituted against a student charged with violation of a law which is also a violation of the student code of conduct, i.e., if both violations result from the same factual situation, without regard to the pendency of civil litigation in court or criminal arrest and prosecution. Such proceedings under this student code of conduct may be carried out prior to, simultaneously with or following civil or criminal proceedings off-campus.

1. Arrest for or conviction of any civil or criminal laws committed while on campus or at college sponsored events. (Probation)

2. Threatening, attempting, or using physical force or intimidation (including stalking) against any person on the college properties or at any off-campus college sponsored events. This includes the interference with the freedom of movement of any person. (Suspension)

3. Deliberate interference with academic freedom or freedom of speech, including disruption of a class, or interference with the freedom of any speaker invited by the college to express his/her views. (Warning)

4. Discrimination on the basis of race, color, religion, national origin or ancestry, age, sex, marital status or handicap. (Probation)

5. Sexual harassment in the educational environment, as defined by the Elliott-Larsen Civil Rights Act. (Suspension)

   Note: The Elliott-Larsen Civil Rights Act defines sexual harassment in the educational environment as "unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct or communications of a sexual nature when...such conduct or communication has the purpose or effect of substantially interfering with an individual's education...or creating an intimidating, hostile or offensive...educational...environment."

6. Conduct or expression which is disorderly, lewd, indecent or obscene on college property or at a college sponsored event. (Warning)

   Note: To determine conduct or expression which is disorderly, lewd, indecent or obscene, the U.S. Supreme Court has set forth the following three-prong test to determine obscenity:

   > The basic guidelines for the trier of fact must be: (a) whether the average person applying contemporary community standards would find that the work/action, taken as a whole, appeals to the prurient interest; (b) whether the work/action depicts or describes, in a patently offensive way, sexual conduct specifically defined by the applicable state law; and (c) whether the work/action, taken as a whole, lacks serious literary, artistic, political, or scientific value.

7. Engaging in any kind of hazing action on or off campus that endangers the mental health, physical health or safety of a student or which destroys or removes public or private property for purpose of initiation or admission into, affiliation with, or participation in any student organization. (Suspension)

8. Failure to comply with reasonable requests and orders by authorized college officials or representatives acting in behalf of the college. (This requirement includes reasonable requests for students to meet appointments in administrative or faculty offices and at investigative/disciplinary hearings.) (Warning)

9. Initiate false alarms which endanger the health and safety of any person on college properties or at any off-campus college sponsored events. (Suspension)

10. Possession or use of knives (blade in excess of 3 1/8"), firearms, firecrackers, explosives, other lethal weapons, and/or toxic or dangerous chemicals on campus or at any college sponsored events, except when specifically authorized in writing by a college administrator for educational/safety purposes. Further, possession in a locked vehicle may be permitted according to State laws. Law enforcement officers are exempt from this policy. (Suspension)

11. Unauthorized distribution or sale of items on campus. (To be eligible for authorization, students must follow the steps outlined in Board policy/procedures 3.015, Community Use of College Facilities.) (Warning)

12. Manufacture, possession, control, sale, transmission or use:

    a. Any controlled substance (illegal drugs) in violation of state or federal laws; or

    b. Substances purported to be illegal, abusive or performance enhancing, i.e., look-alike drugs.

    The college has the policy of full cooperation with law enforcement agencies in such cases. (Suspension)

13. Possession (outside of State laws), distribution, consumption or abuse (including intoxication) of any alcoholic beverages on any college owned or rented facility, except in employee rented dwellings on campus. (Suspension)

14. Consumption of food or beverages in unauthorized areas on campus. (Warning)

15. Smoking in classrooms or other designated non-smoking areas. (Warning)

16. Gambling with money or anything else of value on campus or any college sponsored event. (Probation)

17. Dress that fails to meet established safety or health standards in specific on or off-campus classes or at college sponsored events. (Warning)

18. Parking of vehicles in unauthorized areas. (Warning)

19. Unauthorized presence of pets on campus. (Animals who assist students with disabilities are permitted on campus.) (Warning)

20. Misrepresentation, alteration, forging or misuse of college documents, records, or identification cards. (Students are required to present identification when requested by authorized college officials.) (Expulsion)

21. Unauthorized representation or contracting in the name of Kirtland Community College. (A student may not claim to be an official representative of the college for any commercial purpose.) (Suspension)

22. Use and/or misuse of the college computer system, facilities, hardware, software and all computerized information is prohibited in the following circumstances, including, but not to be limited to:

    a. Unauthorized entry into a file, whether to use, read, change or for any other purpose.

    b. Unauthorized transfer of a file.

    c. Unauthorized use of another individual's identification and password.

    d. Use of computing facilities to interfere with the work of another student, faculty member or college official.
    e. Use of computing facilities to send obscene or abusive messages.

f. Use of computing facilities to interfere with normal operation of the college's computing system.

g. Use of computing facilities in a manner which violates state or federal copyright laws, e.g., unauthorized duplication of copyrighted or licensed software. (Suspension)

23. Unauthorized entry to and/or use of college facilities and equipment. Also, the possession of keys or duplication of the college's keys without proper authorization. (Suspension)

24. Attempted or actual theft from, damage to or the defacing of college property or to the property of other students, faculty or staff while on the campus or at any college sponsored event. (Expulsion)

25. Littering of college facilities and grounds. (This includes the disposal of cigarette butts in locations other than ashtrays or trash receptacles.) (Warning)

26. Dishonesty, including knowingly furnishing false information to the college or a college officer, whether verbally, in writing, or completing required forms. (Probation)

27. Violation of college policies and regulations not already addressed in the previously listed forms of misconduct. (Warning)

C. Academic Misconduct

1. Kirtland Community College considers academic dishonesty to be a serious offense. It is the policy of the college that determination of and appropriate action in respect to academic dishonesty by a student shall be a matter of individual judgment by the instructor, with departmental guidelines.

   Cheating, plagiarism or other forms of academic dishonesty including the unauthorized acquisition of tests or other academic materials. This includes students who aid and abet, as well as those who attempt such behavior. (An instructor may administer a penalty up to and including failure in a particular course. In some cases, such as in nursing and criminal justice programs, the student handbook outlines the appropriate action. If a student fails two classes as a result of academic dishonesty, he or she is dismissed from the college for the remainder of the semester in which the second violation occurs and the following academic semester that is required for that student's program of study, i.e. some programs require students to take classes during the summer semester, most programs do not.)

Note: Cheating includes, but is not limited to:

a. The use of any unauthorized assistance in taking quizzes, tests or examinations;

b. Dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments;

c. The acquisition, without permission, of tests or other academic material belonging to a member of the college faculty or staff.

Plagiarism is representing the work of other persons as one's own, including but not limited to the use of work by others and information downloaded from the Internet. The use of another person's words, ideas, or information without proper acknowledgement, whether done intentionally or through carelessness, is also plagiarism. The student should seek guidance from the instructor about acceptable methods to be used t acknowledge the work and ideas of others.

2. Deliberate interference with academic freedom or freedom of speech, including disruption of a class, or interference with the freedom of any speaker invited by the college to express his/her views. (Warning)

The deans will decide whether the conduct will be considered academic (section C) or non-academic (section B) and will follow the appropriate procedure.

Disclosure of Student Rights and Responsibilities:

Both policy and procedure for "Student Rights and Responsibilities" will be made available to all students and employees. To ensure this occurs, any college catalog, student handbook or faculty handbook printed after December 31, 1990, must include this information.

RIGHTS AND RESPONSIBILITIES OF STUDENTS

At Kirtland Community College, two procedural forms of due process exist; Academic Due Process and Non-Academic Due Process. As conditions permit, either form of due process is provided to the student within a reasonable amount of time. In certain circumstances, the dean, or his/her designee, may impose a suspension prior to the hearing before the committee.

A. Interim suspension may be imposed only:

   1. To ensure the safety and well-being of members of the college community or preservation of college property;

   2. To ensure the student's own physical or emotional safety and well-being;

   3. If the student poses a definite threat of disruption or interference to the normal conduct of operations of the college.

B. During the period of interim suspension, the student shall be denied access to the campus (including being barred from classes) and/or all other college activities or privileges for which s/he might otherwise be eligible as the director of student services dean may determine to be appropriate.

C. The interim suspension shall continue until the student's due process procedures are complete. The hearing for this matter should follow the dean's actions as soon as practicable.

Procedure for Non-Academic Due Process:

Any member of the college community may file charges against a student for an alleged violation of the student code of conduct. These charges must be filed in writing by completing a "Student Conduct Complaint Form" and be submitted to the dean of student services as soon as possible after the incident. These forms can be obtained from the student services office. Once charges have been formally filed, the following procedure for Non-Academic Due Process must be observed:

A. The director of guidance and counseling shall meet with the person (complainant) who has filed a charge against another person or student organization. During this meeting, the director will review the charge and procedure with the complainant. The director will also meet with the individual(s) charged with the violation and attempt to resolve the situation between the two parties. If the complainant elects to withdraw the charge, a complaint withdrawal form will be completed and signed by the complainant. If the charge stands, the dean of student services will notify the student (in writing) of the charges filed against him/her and the college's policy regarding due process.

B. The dean of student services will appoint a student judiciary committee composed of three full-time college employees and two students. The dean will appoint one of the employees to chair the hearing. The members of this committee must have no vested interest in the matter. The dean of student services cannot serve on this committee.

C. The person filing the complaint and the person or student organization charged with violating the student code of conduct are responsible for providing statements from witnesses and other evidence. Witness statements can be provided verbally during the hearing or in written (signed and dated) form. Both parties may have other individuals at the hearing. These individuals are limited to an advisory capacity with no right of cross-examination.

D. The student judiciary committee has the responsibility of hearing the charges against the student and reviewing the evidence. The hearing will take place within ten working days following the student's receipt of the written charges. A verbatim record, such as a tape recording, will be made of all hearings. This record remains the property of the college and must be maintained for a period of two years. Within one working day following the hearing, the committee will submit (in writing) its recommendation to the dean of student services.

E. The dean of student services will render a decision on the case, which may include sanctions imposed on the student. The dean will then inform (in writing) all parties involved of his/her decision within three working days of the receipt of the student judiciary committee's recommendation.

F. If the student wishes to contest the dean of student services' decision, s/he may appeal to the President within three working days following notification of the dean's decision (refer to "Appeal Process"). The President's decision will be final.

Note: A student who commits a drug or alcohol related infraction (Forms of Misconduct #13 or #14), will be immediately referred to the dean of student services. The dean may provide the student with a choice of the following options:

Option #1: Referral to the Kirtland's student assistance program and/or to a substance professional for a substance abuse intake interview and assessment. The dean will also give a formal "warning" to the student.

Option #2: Referral to the student judiciary committee for a hearing. If found in violation by the committee, the student may be suspended for the remaining portion of the current semester with no refund of tuition and fees. Further, if suspended, the student must show evidence of an intake interview and assessment with a substance abuse professional in order to return to Kirtland.

Procedure for Academic Due Process:

A. If an instructor fails a student in a course for academic dishonesty, the instructor must immediately notify, in writing (Academic Student Conduct Complaint Form), the student and the dean of instruction. The dean of instruction shall maintain a record of all such notifications.

B. If a student wishes to appeal a grade or academic decision, s/he must first meet with the faculty member to discuss his/her grievance.

C. If the student and faculty member do not come to a satisfactory agreement, or if charged with academic misconduct, the student may appeal to the appropriate associate dean. If the problem is not resolved at this level, the student may appeal to the dean of instruction.

D. If the student chooses to appeal to the dean of instruction, a written request (which includes a brief summary of the grievance) must be submitted. The dean will review the appeal. Within three working days after receiving the appeal, the dean shall render a decision.

E. Should the student wish to pursue the matter further, the dean will refer the complaint to the academic appeals committee. The instructional dean will appoint an academic appeals committee composed of three full-time faculty members and two students. The dean will appoint one of the faculty members to chair the hearing. The members of this committee must have no vested interest in the matter. The dean cannot serve on this committee.

F. The academic appeals committee has the responsibility of hearing the grievance and reviewing the evidence. The hearing will take place within ten working days following the student's request for a hearing. A verbatim record, such as a tape recording, will be made of all hearings. This record remains the property of the college and must be maintained for a period of two years. Within one working day following the hearing, the committee will submit (in writing) its recommendation to the dean.

G. The dean will render a decision on the case. The dean will then inform (in writing) all parties involved of his/her decision within three working days of the receipt to the academic appeals committee's recommendation.

H. If the student wishes to contest the dean's decision, he/she may appeal to the President within three working days following notification of the dean's decision (refer to "Appeal Process"). The President's decision will be final.

Appeal Process(es):

An appeal shall be limited to review of the verbatim record of the initial hearing and supporting documents for one or more of the following purposes, except as required to explain the basis of new evidence:

A. To determine whether the original hearing was conducted fairly in light of the charges and evidence presented, and in conformity with prescribed procedures giving the complaining party a reasonable opportunity to prepare and present evidence that the student code of conduct was violated and giving the accused student a reasonable opportunity to prepare and to present his or her rebuttal of those allegations.

B. To determine whether the decision reached regarding the accused student was based on substantial evidence, i.e., were the facts in the case sufficient to establish whether there was, or was not, a violation of the student code of conduct?

C. To determine whether the sanction(s) imposed was appropriate to the violation of the student code of conduct which the student was found to have committed.

D. To consider new evidence, sufficient to alter a decision, or other relevant facts not brought out in the original hearing because such evidence and/or facts were not known to the person appealing at the time of the original hearing.

SUBSTANCE ABUSE INFORMATION ON ALCOHOL AND DRUGS

Information regarding the misuse and abuse of alcohol and drugs can be found in the student center near the entrance or by contacting the director of guidance and counseling in the student services office.

STATEMENT/GUIDELINES REGARDING AIDS

In response to the epidemic of infection with Human Immunodeficiency Virus (HIV), which causes the Acquired Immunodeficiency Syndrome (AIDS), Kirtland Community College has adopted these guidelines based upon the recommendation of the American College Health Association.

AIDS is a serious illness, a public health problem, and an immediate concern to the college community. AIDS is characterized as a defect in natural immunity against disease. People who have AIDS are vulnerable to critical illnesses that are not a threat to anyone whose immune system is functioning in a standard and typical fashion.

AIDS is caused by a virus commonly called HIV. Presently, there is no known cure or effective vaccine. However, the consensus of authoritative medical opinion, as reflected by the Center for Disease Control and Public Health Service, is that AIDS is not a readily communicable disease.

There are no known cases of AIDS transmission by food, water, insects, or casual social contact, and no spread of the virus has been found within family groups in which one or more persons have been diagnosed with AIDS, except from sexual and/or intravenous transmission. The current scientific understanding is that the AIDS virus is transmitted only through an exchange of infected body fluids, blood, or blood products. Such exchanges may occur when the needle of an infected person (in most cases, a drug addict) is used by someone else, through a blood transfusion from an infected person, or through intimate contact involving the transfer of semen and vaginal fluids.

NOTE: The use of condoms can significantly reduce spread of this virus. AIDS has not been shown to be transmitted by saliva, tears, nasal secretions, vomitus, urine, or feces. Considering current authoritative medical opinion, there is no basis for routinely excluding or dismissing employees or students because they have AIDS, ARC (AIDS-Related Complex), or AIDS virus antibodies. Since these conditions have been designated as handicaps and are treated as such by the Elliott-Larson Civil Rights Act, it is also against the law to dismiss someone on this basis. Depending on the medical circumstances of each situation, the college may require the monitoring of the medical condition of an infected person, which includes the counseling of that person on the nature of the disease and the importance of not engaging in behavior that could transmit it, if that is appropriate. No broad blood screening test will be required.

The right to privacy of all individuals will be respected and protected, and the confidentiality of any required records that may be required will be maintained. Because the virus is not transmitted by ordinary contact, it is neither necessary nor appropriate for the protection of roommates, classmates, or employees to share with them any information regarding a student or employee with AIDS and AIDS-related conditions.

Kirtland Community College will comply with all federal and state laws and regulations, including those of the United States Public Health Service and the guidelines from the Center for Disease Control and the American Health Association, which bear on the welfare of persons within the college community who test positively to that antibody. It has also adopted the safety guidelines as proposed by the United States Public Health Service "for the handling of blood and body fluids of all persons.... " All appropriate college personnel will be trained in and will follow these procedures.

The college will continue to provide information programs designed to acquaint the community with current information about AIDS and how to avoid or minimize the risks of transmission of the virus.

Anyone with questions about AIDS may contact Jacquelyn Smith, nursing instructor. Materials on AIDS will be available in information-dispensing units on campus.

In addition, any student who is concerned or has questions about AIDS or HIV may contact the Grand Traverse, Leelanau, Benzie District Health Department (Tri-County) in Traverse City, P.O. Box 905, Traverse City, MI 49685-0905, 616-922-4381 or the District Health Department #1 in Cadillac for free counseling and/or HIV testing.

ADDITIONAL INFORMATION

COMMUNITY SUPPORT SERVICES

COMMUNITY BASED STUDENT EMPLOYMENT

Part-time student employment with off-campus employers is an option for eligible Kirtland students. Off-campus employers considering participation in this program should contact financial aid at 989-275-5000, extension 257. Since financial aid may not cover 100% of the student's wages, off-campus employers may be obligated to contribute matching funds.

M-TEC[SM] AT KIRTLAND-GAYLORD

The M-TEC[SM] at Kirtland-Gaylord is a state-of-the art facility offering technical education in a unique, flexible, student-friendly manner. The M-TEC[SM] campus is located in Gaylord and features state-of-the-art equipment, pedagogy, and curriculum taught by experienced faculty. Students can choose a course of study and build it from hundreds of skill-specific modules, resulting in a dynamic, flexible program preparing graduates to enter into high-paying jobs.

The mission of the M-TEC[SM] is to provide educational programs and services to individuals in preparation for employment in high-skill, high-wage, high-demand occupations. In addition, through customized training and contracted education, business and industry partners in the Northern Michigan Region and their employees will be provided with educational opportunities specifically designed to upgrade and/or enhance the job skills necessary to compete in a local, state, national, and global economy.

For information, contact the M-TEC[SM] at Kirtland-Gaylord at 989-705-3600. Additional information is also available in the Programs of Study section of this catalog.

COMMUNICATION WITH THE COLLEGE COMMUNITY

COLLEGE CATALOG

The college catalog is the official publication issued by the college, and is available online at: www.kirtland.edu. The catalog includes detailed information concerning programs of study, course descriptions, admission and graduation requirements, and services for students. The contents of the college catalog are subject to change. The catalog is not to be considered as a contract or agreement between the student or the college. For the most current information, check the student class schedule.

CLASS SCHEDULES

A class schedule is a list of courses offered by the college during a semester. This publication provides day, time, and location of each class. Also included is information concerning testing, advising, registration, and other services provided by the college.

The class schedule is available in late March or early April for both summer and fall semesters and in early November for the winter semester. Class schedules are available online at www.kirtland.edu by selecting “Class Schedule”.

INFORMATION MONITORS

Monitors that display information that is important to students are stationed in the administration center, the instructional center, the career technology center, library, and the student center. Information includes cafeteria specials, registration dates, athletic highlights, scholarship deadlines, commencement details, class cancellations, and other information that is updated regularly.

CAMPUS NEWSPAPER

The Kirtland Current is a student-produced and written news and information source publishing periodically throughout the Fall and Winter semesters. The Current includes news articles, feature stories, fictional and non-fictional literature, poetry, columns and commentary, photography, art and graphics design.

Most, but not all, staff members of the Current are Kirtland students enrolled in the college journalism program and use the publication to learn reporting, editing, interviewing, photography, graphic design and business skills. The Current is produced independently of Kirtland Community College, college administrators and the Kirtland Marketing Department and does not reflect the opinion or policy of Kirtland Board of Trustee members, college administrators, faculty or staff. For more information about joining the Current staff or to submit content for possible inclusion, contact the advisor at (989) 275-5000, ext. 308

GLOSSARY OF COLLEGE TERMS

Associate Degree - The degree given for completing college programs of at least two but less than four years of study (60 credit hours or more), usually in a two-year institution such as a junior college or community college.

Certificate - An award for completing a particular program or course of study of 30 or more credit hours, sometimes awarded by two-year colleges instead of the associate degree.

Contact Hours - The total hours of lecture and laboratory instruction for each class. (Fifty instructional minutes equal one contact hour.) Tuition is charged per contact hour.

Corequisite - A required course which, if not taken ahead of time, must be taken at the same time as another class.

Preparatory Class - A corrective course designed to assist students who need additional assistance in reading, mathematics, or English.

Elective - A subject or course which is open to choice, i.e., a subject which is optional and not required.

Freshman - Class level for students with less than 30 completed credit hours in their program of study.

Full-Time Students - A student who is enrolled for 12 or more credit hours during fall or winter semesters, or six or more credit hours during summer session.

Humanities Elective - A course from the following subject areas: art, creative writing, world languages, history, humanities, journalism, literature, music, philosophy, and theatre.

Part-Time Student - A student who is enrolled for 11 or fewer credit hours during the fall or winter semester or five or fewer credit hours during the summer session.

Prerequisite - A requirement for registration in a particular course. For example, Calculus I is a prerequisite for Calculus II.

Science Elective - A course from the following subject areas: astronomy, biology, chemistry, geology, or physics.

Social Science Elective - A course from the following subject areas: anthropology, economics, geography, political science, psychology, and sociology.

Sophomore - Class level for students with 30 or more completed credit hours in their program of study.

KIRTLAND COMMUNITY COLLEGE

PROGRAMS OF STUDY

2010-2011

Kirtland Community College reserves the right to change or correct any information contained in this document at any time without notification. Students alone are responsible for the successful completion of the requirements for the degree selected. While advisors are available to assist with course selection, it remains the student's responsibility to ensure that all degree and grade requirements are met for graduation.

PROGRAMS OF STUDY

Key: AAS = Associate in Applied Science; AFA = Associate in Fine Arts; AS=Associate in Science;
CC = Certificate of Completion; SC – Special Certificate; Transfer=Degree designed to facilitate transfer to another college

INSTRUCTIONAL DIVISIONS
2010-2011

Kathy Marsh
Dean of Instruction
Career Development
Student Success
Tutoring

Jerry Boerema
Associate Dean of Instruction
Automotive
Carpentry
Core
Cosmetology
Criminal Justice
Electrical Technology
Engineering Design Technologies
Fire Science
HVAC/R
Industrial Maintenance
Outdoor Power Engines
Police Academy
Welding

Mary Ann Frick
Associate Dean of Health Sciences
Allied Health
EMT/Paramedic
Health Sciences
Nursing
Pharmacy Technology
Radiography
Sonography
Surgical Technology

Lisa Balbach
Chair, Business, Technology & Art
Accounting
Art
Business
Computers
Economics
Marketing
Office Systems

Fred Giacobazzi
Chair, Communication & World Languages
English
French
Journalism
Literature
Philosophy
Sign Language
Spanish
Speech

John Thiel
Chair, Social Science, Music & Theatre
Geography
History
Humanities
Music
Political Science
Sociology
Theatre

Marcell Romancky
Chair, Mathematics
Mathematics

Anne Hauser
Chair, Science & Education
Astronomy
Biology
Chemistry
Education--Elementary & Secondary
Geology
Physics

Guide to Understanding the Program Pages

Type of degree or certificate and the program code

Program Name

Minimum number of credits required for this program

BUSINESS MANAGEMENT — Minimum Credits: 60
Associate in Applied Science (DBSM0) — Contact Hours: 62-67

Introduction

Kirtland's program in Business Management is designed to provide an overall background of training that is necessary for entry and success in the business world. The program is intended to lay a foundation for a great variety of entry-level positions that may ultimately lead to mid-management positions in business or industry. Students are given the opportunity to enhance decision-making, problem-solving, and creative abilities. Emphasis is placed on management, marketing, and business communications. Any Business Management major who plans to eventually acquire a bachelor's degree after completion of the associate degree is encouraged to follow the Associate in Business Administration degree.

Introductory program information

Tuition is charged by contact hour. This number represents the range of contact hours that a student will be billed for if every course for this program is taken at KCC.

Course	Title	
ACC-12100	Accounting Principles I	
ACC-12200	Accounting Principles II	
BUS-10100	Introduction to Business	
BUS-21000	Principles of Management	3
BUS-21500	Legal Environment of Business	3
BUS-24500	Personnel Management	3
ECO-20100	Principles of Economics-MACRO	3
ECO-20200	Principles of Economics-MICRO	3
MKT-20000	Principles of Marketing	3
OIS-10401/02/03 Or BUS elective	Keyboarding I-A/B/C Or Business elective	3
OIS-10500	Business Correspondence	3
Up to 2 credits from below, if needed		
ACC-_____		
BUS-_____		
CIS-_____		
MKT-_____		
OIS-_____		

Specific program requirements

General Education

General Education Requirements

Communications (9-10 credits):

ENG-10000	Writing Lab, if required	
ENG-10303	English Composition I w/Computers	
ENG-10403	English Composition II w/Computer	
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Into to Interpersonal & Public	

Humanities/Social Science (8-10 credits):

POL-10100	Introduction to American Governme	
PSY-10100	Introduction to Psychology	
	Any Humanities	

Math/Natural Science (6-9 credits):

MTH-12000	Intermediate Algebra or higher	3-4
	Any science course with a lab	

Range of credits accepted to meet this requirement.
Minimum numbers are set to allow for courses transferred to KCC which meet our requirements but which have fewer credits than KCC courses.

HONORS PROGRAM

Introduction
The Kirtland Honors Program is designed to meet the needs of students of high academic standing who are seeking additional challenges and rewards in both general education and occupational programs. Honors students may earn honors credits in Kirtland "honors option" courses and in individually designed honors and service learning projects. Students who complete 12 honors credits may be awarded an honors degree, with transcript recognition for all completed honors courses, and, upon completing the honors degree program, an honors degree.

A minimum of 12 credits in honors courses is required to earn an Honors associate degree. An additional three credits in honors courses is required for each subsequent honors degree.

Honors degrees may be earned in all of the following degree areas:

Honors Associate in Arts
Honors Associate in Applied Science
Honors Associate in Business Administration
Honors Associate in Fine Arts
Honors Associate in Science

Students interested in earning an honors degree in these or an area not mentioned above should contact the Honors Secretary at 989-275-5000, ext 359.

Honors Degree Requirements
Students admitted to the Kirtland Honors Program who complete the following requirements will be awarded an honors degree:

- The student must complete at least one 3-credit course designated as an Honors Colloquium (HON-25000).
- In addition to one Honors colloquium, the student must complete at least nine additional honors credit hours. These hours may be earned in the following ways:
  - in classes designated as honors sections (indicated by a 9 as the fourth and/or fifth character in the course number)
  - Service Learning
  - in Honors Projects (HON 225; up to three credits) undertaken in conjunction with non-honors course
- The student must have a cumulative Kirtland grade point average of at least 3.5.
- The required 12 honors credit hours must be earned at Kirtland.
- The student must complete all other requirements established for his or her degree at Kirtland.

Every effort will be made to ensure that honors students can complete the requirements for an honors degree within two academic years. However, students must be made aware that scheduling difficulties may prevent their completion of the requirements within two years.

The honors degree will be noted on the student's degree certificate; honors courses will be noted on the student's transcript. At the graduation ceremony, academic regalia will include some feature distinguishing an honors degree recipient.

For more information, please contact the Honors Office:

Terry Geary, Honors Secretary	989-275-5000, extension 359
Kathy Marsh, Dean of Instruction	989-275-5000, extension 245

ARTS

Special Certificates
- *Graphic Design*

Certificates
- *Graphic Design*

Associate in Applied Science
- *Animation & Game Design*
- *Foundations in Fine Art*
- *Graphic Design*
- *Three-Dimensional Product Design*

Associate in Fine Arts
- *Fine Arts: Studio Art*

Partnership Programs
- *College for Creative Studies*
- *Kendall College of Art & Design of Ferris State University*

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

Foundation
Kirtland Community College recognizes the importance of students possessing basic academic skills in English, reading, and mathematics in order to successfully complete college-level courses. Therefore, all entry-level students are required to demonstrate their proficiency in basic academic skills, as these courses are the foundation for success in all programs. The student's advisor will indicate which of the following courses need to be taken based on ACT scores or COMPASS placement testing results. It is highly recommended that students take these courses during the first semester in order to prepare for the road ahead, as well as possibly satisfying prerequisites needed for more advanced courses. Specific courses needed may be tracked below. *Students must plan additional time to complete their program requirements if placement results demonstrate the need to begin with preparatory courses (courses numbered less than 10000).*

☐ ENG-10000 Writing Lab (if required)
☐ English: _____
☐ Mathematics: _____
☐ Reading: _____

For more information, please contact the Art Department.	
Joe Donna	989-275-5000, extension 226
Scott Rice	989-275-5000, extension 300

ANIMATION AND GAME DESIGN

Minimum Credits: 70

Associate in Applied Science (DAGD0)

Contact Hours: 82-90

Introduction

Kirtland's Associate in Applied Science--Animation and Game Design is designed to provide specialized instruction that is necessary for entry and success in the animation and gaming industry. The curriculum is based upon solid academic, computer operation and studio art courses focusing on conceptual, theoretical, practical, and technical skills. The major core curriculum is based upon traditional practices and in-depth use of technology. After completing the second semester in the program, associate degree candidates need to meet with an advisor to determine if they wish to continue in the program or pursue the Associate in Fine Arts—Studio Art degree to transfer to an institution that grants four-year degrees.*****

Course	Title	Credits
ART-10500	Introduction to Design	3
ART-10600	Fundamentals of Drawing I	3
ART-11500	Photography I	3
ART-19000	Digital Communications	3
ART-20600	Drawing II	3
ART-27545	DS-Computer Generated Images I	3
ART-27565	Comic Book Illustration	3
ART-27571	DS-Computer Animation I	3
ART-27573	DS-Computer Animation II	3
ART-28000	Portfolio	3
CIS-10500	Introduction to Computers	3
CIS-21000	Internet & Web Page Development	3
CIS-21500	Web Animation & Multimedia	3
CIS-21900	MacIntosh O.S.X.	1
CIS-27001	Programming I	3
CIS-27101	Programming II	4

General Education

Communications (9-10 credits):

ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403 Or ENG-10602	English Composition II w/Computers Or Technical Writing w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal/Public Comm	3

Humanities/Social Science (8-11 credits):

POL-10100	Introduction to American Government	3
	Humanities Elective *	2-4
	Social Science Elective **	3-4

Math/Natural Science (6-9 credits):

MTH-12000	Intermediate Algebra or higher	3-4
	Science with a lab	3-5

**Note: ***This two-for-one option is suggested for Associate in Applied Science: Animation and Game Design students who wish to transfer or for those who have already completed these courses in the Associate in Fine Arts degree.

FOUNDATIONS IN FINE ART

Minimum Credits: 72

Associate in Applied Science (DFFA0)

Contact Hours: 88-95

Introduction

Kirtland's Associate in Applied Science Foundations in Fine Art degree is designed to provide specialized instruction for those students who wish to transfer to Kendall College of Art and Design or to the College of Creative Studies. The curriculum is based upon solid academic and studio art courses, focusing on conceptual, theoretical, practical, and technical skills. The major core curriculum is based upon traditional practices and in-depth use of technology. After completing the second semester in the program, associate degree candidates need to meet with their advisor to determine if they wish to continue in the program or pursue the Associate in Fine Arts – Studio Art degree to transfer to another institution that grants four-year degrees.

Course	Title	Credits
ART-10000	Art History I	3
ART-10103	Art History II	3
ART-10500	Introduction to Design	3
ART-10600	Fundamentals of Drawing I	3
ART-10700	Painting I	3
ART-11400	Sculpture I	3
ART-11500	Photography I	3
ART-20600	Drawing II	3
ART-20700	Painting II	3
ART-21500 Or ART-21400	Photography II Or Sculpture II	3
ART-27531	Rendering I	3
ART-27545	DS-Computer Generated Images I	3
ART-27550	Digital Darkroom	3
ART-28000	Portfolio	3
ART-_____	Studio Art elective	3
ART-_____	Studio Art elective	3
CIS-21900	MacIntosh O.S.X.	1

General Education

Communications (9-10 credits):

ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403 Or ENG-10602	English Composition II w/Computers Or Technical Writing w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal/Public Comm	3

Humanities/Social Science (8-11 credits):

POL-10100	Introduction to American Government	3
	Humanities Elective	2-4
	Social Science Elective, excluding POL-10100	3-4

Math/Natural Science (6-9 credits):

MTH-12000	Intermediate Algebra or higher	3-4
	Science with a lab	3-5

Note: ***This two-for-one option is suggested for Associate in Applied Science: Foundations in Fine Art students who wish to transfer to Kendall or CCS or for those who have already completed these courses in the Associate in Fine Arts degree.

GRAPHIC DESIGN
Special Certificate (SGRA0)

Minimum Credits: 19
Contact Hours: 25

Introduction
Kirtland's Special Certificate - Graphic Design is designed to provide the student with the basic skills necessary to gain entry-level employment in the graphic design and visual communication industry. The emphasis in the curriculum is comprised of the six required studio art courses based upon traditional practices. Students may also elect to pursue a Certificate – Graphic Design, an Associate of Applied Science – Graphic Design, or an Associate in Fine Arts – Studio Art at any point in this program.

Course	Title	Credits
ART-10600	Fundamentals of Drawing I	3
ART-11500	Photography I	3
ART-19000	Digital Communications	3
ART-25000	Illustration I	3
ART-27545	DS-Computer Generated Images I	3
ART-28000	Portfolio	3
CIS-21900	MacIntosh O.S. X	1

GRAPHIC DESIGN
Certificate of Completion (CGRA0)

Minimum Credits: 31
Contact Hours: 40

Introduction
Kirtland's Certificate - Graphic Design is designed to provide the student with the advanced training that is necessary for entry and continuing success in the graphic design and visual communication industry. The curriculum is based upon solid studio art courses focusing on conceptual, practical, and technical skills. The major core curriculum is based upon traditional practices and in-depth use of technology. Students may also elect to pursue an Associate of Applied Science – Graphic Design, or an Associate in Fine Arts – Studio Art at any point in this program.

Graphic Design:

Course	Title	Credits
ART-10500	Introduction to Design	3
ART-10600	Fundamentals of Drawing I	3
ART-11500	Photography I	3
ART-19000	Digital Communications	3
ART-25000	Illustration I	3
ART-27545	DS-Computer Generated Images I	3
ART-28000	Portfolio	3
CIS-21900	MacIntosh O.S. X	1

Choose two electives from the following list:

ART-20600	Drawing II	3
ART-17000	Graphic Studio	3
ART-21500	Photography II	3
ART-27546	DS-Computer Generated Images II	3

Life Skills:

CIS-10500	Introduction to Computers	3

GRAPHIC DESIGN
Associate in Applied Science (DGRA0)

Minimum Credits: 69
Contact Hours: 84-92

Introduction
Kirtland's Associate in Applied Science - Graphic Design is designed to provide specialized instruction that is necessary for entry and success in the graphic design and visual communication industry. The curriculum is based upon solid academic and studio art courses focusing on conceptual, theoretical, practical, and technical skills. The major core curriculum is based upon traditional practices and in-depth use of technology. After completing the second semester in the program, associate degree candidates need to meet with an advisor to determine if they wish to continue in the program or pursue the Associate in Fine Arts – Studio Art degree to transfer to an institution that grants four-year degrees.

Course	Title	Credits
ART-10000	Art History I	3
ART-10103	Art History II	3
ART-10500	Introduction to Design	3
ART-10600	Fundamentals of Drawing I	3
ART-11500	Photography I	3
ART-17000 Or ART-26000	Graphic Studio Or Illustration II	3
ART-19000	Digital Communications	3
ART-20600	Drawing II	3
ART-21500	Photography II	3
ART-25000	Illustration I	3
ART-27545	DS-Computer Generated Images I	3
ART-27546 Or ART-27550	DS-Computer Generated Images II Or Digital Darkroom	3
ART-27571	DS-Computer Animation I	3
ART-28000	Portfolio	3
ART-_____	Studio Art elective	3
CIS-21900	MacIntosh O.S.X.	1

General Education

Communications (9-10 credits):

ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403 Or ENG-10602	English Composition II w/Computers Or Technical Writing w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal/Public Comm	3

Humanities/Social Science (8-11 credits):

POL-10100	Introduction to American Government	3
	Humanities Elective	2-4
	Social Science Elective, excluding POL-10100	3-4

Math/Natural Science (6-9 credits):

MTH-12000	Intermediate Algebra or higher	3-4
	Science with a lab	3-5

**NOTE: ***This two for one option is suggested for Associate in Applied Science: Graphic Design students who wish to transfer or for those who have already completed these courses in the Associate in Fine Arts degree.

3-DIMENSIONAL PRODUCT DESIGN

Minimum Credits: 61

Associate in Applied Science (DPRD0)

Contact Hours: 73-79

Introduction

Efficiency. Functionality. Beauty. The 3-Dimentional/Product Design program will teach you how to combine creative innovation with an ability to meet the needs of the product users. Students are trained in numerous courses to strengthen their skills and obtain marketable experience that can be used in the product design, transportation design, crafts or functional art or furniture design fields.

Course	Title	Credits
ART-10000	Art History I	3
ART-10103	Art History II	3
ART-10500	Introduction to Design	3
ART-10600	Fundamentals of Drawing I	3
ART-10800	Ceramics I	3
ART-11400	Sculpture I	3
ART-20500	Design II	3
ART-20600	Drawing II	3
ART-21400	Sculpture II	3
ART-25000	Illustration I	3
ART-27514	Welded Sculpture I	3
ART-27571 Or ART-20800	Computer Animation I Or Ceramics II	3
ART-28000	Portfolio	3

General Education

Communications (9-10 credits):

CIS-21900	MacIntosh O.S.X.	1
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403 Or ENG-10602	English Composition II w/Computers Or Technical Writing w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal/Public Comm	3

Humanities/Social Science (8-11 credits):

POL-10100	Introduction to American Government	3
	Social Science Elective, excluding POL-10100	3-4

Math/Natural Science (6-9 credits):

MTH-12000	Intermediate Algebra or higher	3-4
	Science with a lab	3-5

ASSOCIATE IN FINE ARTS
Studio Art (DAFA1)

Minimum Credits: 60
Contact Hours: 71-82

Introduction

The Associate in Fine Arts: Studio Art degree is designed for students with an interest in studio arts such as sculpture or painting. This degree program works to give students both practical experience in the art form of their choice, and the critical and academic background necessary for further study of the fine arts while helping develop a personal sense of aesthetic and artistic criteria. Because the artist's association with the world is stressed, a strong academic schedule is affiliated with the creative discipline.

Students planning to transfer to a four-year college or university must consult with their advisor and carefully study the requirements of the four-year institution from which they intend to secure a bachelor's degree. Appropriate course substitutions may be made upon the recommendation of a student's advisor and with approval of the appropriate dean or associate dean. Substitutions are only made in accordance with the specific requirements of the baccalaureate degree-granting institution to which the student intends to transfer.

Students who have previously attended other colleges or universities may apply earned transfer credit in subject areas (i.e., psychology elective, biology elective, etc.) where deemed appropriate. This degree satisfies the requirements of the MACRAO Transfer Agreement as defined in the handbook section of this catalog.

Communications (12-13 credits):

Course	Title	Credits
CIS-10500	Introduction to Computers	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal/Public Comm	3

Humanities (11-13 credits):

	Select 2-3 credits from Art, Music, or Theatre	2-3
	Select 3-4 credits from Non-ART humanities	3-4
HIS-_____ Or ART-10000 Or ART-10103	HIS Elective Or Art History I Or Art History II	3
	Select Any Art elective	3

Social Science (9-10 credits):

GEO-10000 Or POL-20000 Or POL-20100	World Geography Or International Relations Or Comparative Government	3-4
POL-10100	Introduction to American Government	3-4
PSY-10100 Or SOC-10100	Introduction to Psychology Or Introduction to Sociology	3

Math/Natural Science (9-14 credits):

MTH-13000	College Algebra or higher	3-4
	Two Science courses with a lab from AST, BIO, CHE, GEL, or PHY	6-10
	Math/Natural Science Credits Needed:	**9-14**

Studio Art Option (19 credits):

ART-28000	Portfolio	3
CIS-21900	MacIntosh O.S. X	1
ART-_____	Any ART Electives (recommendation: see Studio Art advisor for guidance)	15

ART DEGREE PARTNERSHIPS

There has never been a better time to be an art school graduate. There are a remarkable number of occupations that require people with artistic talents. Many of the things that lead to improving our quality of life have input from artists. The physical things in our lives—the art that inspires us, the products that we use, the things we see on our screen, the materials we read—all of these affect our sense of what it is to be a complete human being, and all of them are touched by artists. You know it…there are artists all around us. Many of them are called designers. Their influence may be invisible to the typical person, but it's there and it's real and it's growing all the time.

Students in Kirtland Community College's art programs (Associate in Fine Arts—Studio Art, Associate in Applied Science—Graphic Design, and Associate in Applied Science—Animation and Game Design) now have some of the best opportunities to continue to further their education once they build their portfolios while attending Kirtland. Working with the College for Creative Studies (CCS) and Kendall College of Art and Design, past Kirtland Art students have won significant tuition awards at these colleges based on their portfolios in the annual student merit scholarship competitions, with some even receiving full-ride scholarships.

Kirtland art students have experienced excellent transferability of credits to both colleges. Students should contact those listed for specific program information. Students wanting additional information on the various Bachelor of Fine Art programs should contact the respective institutions at the addresses listed below.

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

AUTOMOTIVE

All Automotive programs are NATEF certified.

Special Certificates

- *Automotive Chassis Specialist*
- *Automotive Electrical Systems Specialist*
- *Automotive General*
- *Automotive Powertrain Specialist*

Certificates

- *Automotive Technology Auto Body Specialist*
- *Automotive Technology Diesel Service Specialist*
- *Automotive Technology Master Certification*

Associate in Applied Science

- *Automotive Technology*

Partnership Programs

- *Davenport University*
- *Ferris State University*
- *Franklin University*

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

Foundation

Kirtland Community College recognizes the importance of students possessing basic academic skills in English, reading, and mathematics in order to successfully complete college-level courses. Therefore, all entry-level students are required to demonstrate their proficiency in basic academic skills, as these courses are the foundation for success in all programs. The student's advisor will indicate which of the following courses need to be taken based on ACT scores or COMPASS placement testing results. It is highly recommended that students take these courses during the first semester in order to prepare for the road ahead, as well as possibly satisfying prerequisites needed for more advanced courses. Specific courses needed may be tracked below. *Students must plan additional time to complete their program requirements if placement results demonstrate the need to begin with preparatory courses (courses numbered less than 10000).*

☐ ENG-10000 Writing Lab (if required)
☐ English: _____
☐ Mathematics: _____
☐ Reading: _____

For more information, please contact the Automotive Department.

Richard Bonk 989-275-5000, extension 329

AUTOMOTIVE TECHNOLOGY MASTER CERTIFICATION

Certificate of Completion (CAUT1) **Minimum Credits: 57**

Contact Hours: 81

Introduction

Kirtland's Automotive Technology Master Certification program is designed to provide instruction in manipulative skills and technical knowledge required for employment as an automotive technician. This program is certified by the National Automotive Technicians Education Foundation (NATEF). Graduates of this program will be prepared for the Michigan Bureau of Automotive Regulation Mechanic Certification and the National Institute for Automotive Service Excellence (ASE) Technician Certification tests. Graduates will demonstrate competence in all eight of the following areas: 1) engine repair, 2) automatic transmission and transaxle, 3) manual drivetrain, 4) suspension and steering, 5) brakes, 6) electrical/electronic systems, 7) heating and air conditioning, and 8) gasoline & Diesel engine performance. Students wanting to continue in this program may pursue the Associate in Applied Science – Automotive Technology.

Course	Title	Credits
AUT-16100	Engine Fund & Overhaul	4
AUT-16201	Fuel Systems & Emission Control	4
AUT-16302	Automotive Fundamentals	4
AUT-16401	Basic Electricity	3
AUT-16801	Automotive Electrical Systems	4
AUT-17703	Automotive Braking Systems	4
AUT-20402	Intro Auto Service Management	2
AUT-21800	Automatic Transmissions	4
AUT-23104	Automotive Internship	5
AUT-26500	Steering, Suspension & Alignment	4
AUT-26601	Engine Performance & Diagnostics	4
AUT-26700	Diesel Engine Performance & Diagnostic	4
AUT-27000	Heating & Air Conditioning	3
AUT-27900	Manual Transmission/ Drivelines/ Axles	4
WLD-10120-10133	Welding & Fabrication Level I	4

Suggested sequence of courses:

Semester I (Fall)
AUT-16302—Automotive Fundamentals
AUT-16401—Basic Electricity
AUT-17703—Automotive Braking Systems
WLD-10120-10133—Welding & Fabrication Level I

Semester II (Winter)
AUT-16100—Engine Fundamentals & Overhaul
AUT-16201—Fuel Systems & Emission Control
AUT-16801—Automotive Electrical Systems
AUT-20402—Intro Auto Service Management

Semester III (Fall)
AUT-21800—Automatic Transmissions
AUT-26500—Steering, Suspension & Alignment
AUT-26601—Engine Performance & Diagnostics
AUT-27000—Heating & Air Conditioning

Semester IV (Winter)
AUT-23104—Automotive Internship
AUT-26700—Diesel Engine Performance & Diagnostic
AUT-27900—Manual Transmissions/Drivelines/Axles

For assistance with course selection, sequencing and arranging your schedule, please consult with your advisor.

AUTOMOTIVE TECHNOLOGY

Minimum Credits: 77

Associate in Applied Science (DAUT0)

Contact Hours: 98-105

Introduction

Kirtland's program in Automotive Technology is designed to provide instruction in manipulative skills, technical knowledge and related trade information. Students are given the opportunity to prepare for employment in the automotive industry as certified technicians, service salesmen, or service managers.

This program is certified by the National Automotive Technicians Education Foundation (NATEF). Graduates of this program will be prepared for the Michigan Bureau of Automotive Regulation Mechanic Certification and the National Institute for Automotive Service Excellence (ASE) Technician Certification tests. Graduates will demonstrate competence in all eight of the following areas: 1) engine repair, 2) automatic transmission and transaxle, 3) manual drivetrain, 4) suspension and steering, 5) brakes, 6) electrical/electronic systems, 7) heating and air conditioning, and 8) engine performance. It is recommended that students make an appointment for an interview with an automotive advisor prior to entering the program.

Any student who wishes to pursue a Bachelor's degree should contact his/her advisor during the first semester at Kirtland Community College for guidance. Transfer agreements and/or Articulation agreements are in place with Davenport University and Ferris State University.

Course	Title	Credits
AUT-16100	Engine Fund & Overhaul	4
AUT-16201	Fuel Systems & Emission Control	4
AUT-16302	Automotive Fundamentals	4
AUT-16401	Basic Electricity	3
AUT-16801	Automotive Electrical Systems	4
AUT-17703	Automotive Braking Systems	4
AUT-20402	Intro to Auto Service Management	2
AUT-21800	Automatic Transmissions	4
AUT-23104	Automotive Internship	5
AUT-26500	Steering, Suspension & Alignment	4
AUT-26601	Engine Performance & Diagnostics	4
AUT-27000	Heating & Air Conditioning	3
AUT-27900	Manual Transmission/ Drivelines/ Axles	4
WLD-10120-10133	Welding & Fabrication Level I	4

The following courses are also required for this degree:

ENG-10000	Writing lab, if needed	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3
MTH-12000	Intermediate Algebra or higher	3-4
PHY-10501 And PHY-10502	Physical Science with lab	4
POL-10100	Introduction to American Government	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro Interpersonal/Public Comm.	3
	Any humanities elective	2-4
	Any Social Science elective	3-4

Suggested sequence of automotive courses. See your advisor for assistance in sequencing and scheduling general education courses:

Semester I (Fall)
AUT-16302—Automotive Fundamentals
AUT-16401—Basic Electricity
AUT-17703—Automotive Braking Systems
WLD-10120-10133—Welding & Fabrication Level I

Semester II (Winter)
AUT-16100—Engine Fundamentals & Overhaul
AUT-16201—Fuel Systems & Emission Control
AUT-16801—Automotive Electrical Systems
AUT-20402—Intro Auto Service Management

Semester III (Fall)
AUT-21800—Automatic Transmissions
AUT-26500—Steering, Suspension & Alignment
AUT-26601—Engine Performance & Diagnostics
AUT-27000—Heating & Air Conditioning

Semester IV (Winter)
AUT-23104—Automotive Internship
AUT-27900—Manual Transmissions/Drivelines/Axles

AUTOMOTIVE TECHNOLOGY AUTO BODY SPECIALIST

Certificate of Completion (CABS0) **Minimum Credits: 46**

Contact Hours: 61

Introduction

Kirtland's Automotive Technology Auto Body Specialist program is designed to provide instruction in manipulative skills and technical knowledge required for employment as an entry level auto body specialist. Graduates of this program will be prepared for the Michigan Bureau of Automotive Regulation Mechanic Certification and the National Institute for Automotive Service Excellence (ASE) Technician Certification tests. Graduates will demonstrate competence in the following areas: 1) electrical and electronic systems, 2) automotive braking systems, 3) heating and air conditioning, 4) automatic transmissions, 5) manual transmissions, drivelines and axles, 6) steering, suspension and alignment, and 7) two semesters of auto body internships. Students wanting to continue in this program may pursue the Associate in Applied Science—Automotive Technology.

Course	Title	Credits
AUT-16302	Automotive Fundamentals	4
AUT-16401	Basic Electricity	3
AUT-16801	Automotive Electrical Systems	4
AUT-17703	Automotive Braking Systems	4
AUT-19100	Auto Body Internship—semester 1	5
AUT-19200	Automotive Internship—semester 2	5
AUT-20402	Intro to Auto Service Management	2
AUT-21800	Automatic Transmissions	4
AUT-26500	Steering, Suspension & Alignment	4
AUT-27000	Heating & Air Conditioning	3
AUT-27900	Manual Transmission/Drivelines/Axles	4
WLD-10120-10133	Welding & Fabrication Level I	4

Suggested sequence of courses:

Semester I (Fall)
AUT-16302—Automotive Fundamentals
AUT-16401—Basic Electricity
AUT-17703—Automotive Braking Systems
WLD-10120-10133—Welding & Fabrication Level I

Semester II (Winter)
AUT-16801—Automotive Electrical Systems
AUT-20402—Intro Auto Service Management

Semester III (Fall)
AUT-19100—Auto Body Internship-Semester 1
AUT-21800—Automatic Transmissions
AUT-26500—Steering, Suspension & Alignment
AUT-27000—Heating & Air Conditioning

Semester IV (Winter)
AUT-19200—Automotive Internship-Semester 2
AUT-27900—Manual Transmissions/Drivelines/Axles

For assistance with course selection, sequencing and arranging your schedule, please consult with your advisor.

AUTOMOTIVE TECHNOLOGY DIESEL SERVICE SPECIALIST

Certificate of Completion (CDSS0) **Minimum Credits: 37**

Contact Hours: 50

Introduction

Kirtland's Automotive Technology Diesel Service Specialist program is designed to provide instruction in manipulative skills and technical knowledge required for employment as a diesel service specialist. Graduates of this program will be prepared for the Michigan Bureau of Automotive Regulation Mechanic Certification and the National Institute for Automotive Service Excellence (ASE) Technician Certification tests. Graduates will demonstrate competence in the following areas: 1) electrical & electronic systems, 2) fundamentals of diesel technology, diesel engine performance & diagnostics, 6) welding, and 7) one semester of automotive internship. Students wanting to continue in this program may pursue the Associate in Applied Science--Automotive Technology.

Course	Title	Credits
AUT-16100	Engine Fundamentals & Overhaul	4
AUT-16201	Fuel Systems & Emission Control	4
AUT-16302	Automotive Fundamentals	4
AUT-16401	Basic Electricity	3
AUT-16801	Automotive Electrical Systems	4
AUT-20402	Intro to Auto Service Management	2
AUT-23104	Automotive Internship	5
AUT-26700	Diesel Engine Performance & Diagnostic	4
AUT-27000	Heating & Air Conditioning	3
WLD-10120-10133	Welding & Fabrication Level I	4

Suggested sequence of courses:

Semester I (Fall)
AUT-16302—Automotive Fundamentals
AUT-16401—Basic Electricity
WLD-10120-10133—Welding & Fabrication Level I

Semester II (Winter)
AUT-16100—Engine Fundamentals & Overhaul
AUT-16201—Fuel Systems & Emission Control
AUT-16801—Automotive Electrical Systems
AUT-20402—Intro Auto Service Management

Semester III (Fall)
AUT-27000—Heating & Air Conditioning

Semester IV (Winter)
AUT-26700—Diesel Engine Performance & Diagnostic
AUT-23104—Automotive Internship

For assistance with course selection, sequencing and arranging your schedule, please consult with your advisor.

AUTOMOTIVE CHASSIS SPECIALIST

Special Certificate (SAUT0)

Minimum Credits: 22
Contact Hours: 31

Introduction

Kirtland's Automotive Chassis Specialist certificate program is designed to provide the student with the necessary skills to gain employment in the automotive industry. This program is certified by the National Automotive Technicians Education Foundation (NATEF). Graduates of this program will be prepared for the Michigan Bureau of Automotive Regulation Mechanic Certification and the National Institute for Automotive Service Excellence (ASE) Technician Certification tests. Students will demonstrate competence in suspension, steering, and brakes. Students wanting to continue in this program may pursue the Certificate – Automotive Technology Master Certification or the Associate in Applied Science – Automotive Technology.

Course	Title	Credits
AUT-16100	Engine Fundamentals & Overhaul	4
AUT-16302	Automotive Fundamentals	4
AUT-17703	Automotive Braking Systems	4
AUT-20402	Intro to Auto Service Management	2
AUT-23101	Auto Service Area – Chassis	4
AUT-26500	Steering, Suspension & Alignment	4

AUTOMOTIVE ELECTRICAL SYSTEMS SPECIALIST

Special Certificate (SAUT1)

Minimum Credits: 25
Contact Hours: 35

Introduction

Kirtland's Automotive Electrical Systems Specialist certificate is designed to provide the student with the necessary skills and knowledge to gain employment in the automotive electrical field. This program is certified by the National Automotive Technicians Education Foundation (NATEF). Graduates of this program will be prepared for the Michigan Bureau of Automotive Regulation Mechanic Certification and the National Institute for Automotive Service Excellence (ASE) Technician Certification tests for certification in the following: 1) electricity/electronics, and 2) engine performance. Students wanting to continue in this program may pursue the Certificate – Automotive Technology Master Certification or the Associate in Applied Science – Automotive Technology.

Course	Title	Credits
AUT-16201	Fuel Systems & Emission Controls	4
AUT-16302	Automotive Fundamentals	4
AUT-16401	Basic Electricity	3
AUT-16801	Automotive Electrical Systems	4
AUT-20402	Intro to Auto Service Management	2
AUT-23103	Auto Service Area – Electrical	4
AUT-26601	Engine Performance & Diagnostics	4

AUTOMOTIVE GENERAL

Special Certificate (SAUT2)

Minimum Credits: 15
Contact Hours: 18-22

Introduction
Kirtland's Automotive General certificate is designed to introduce the student to automotive technology. Graduates of this program will be prepared for the Michigan Bureau of Automotive Regulation Mechanic Certification and the National Institute for Automotive Service Excellence (ASE) Technician Certification tests for certification in two areas of repair. Areas of instruction will include automotive fundamentals and two automotive electives, as well as a section of the service area course. This program is certified by the National Automotive Technicians Education Foundation (NATEF). Students wanting to continue in this program may pursue the Certificate – Automotive Technology Master Certification or the Associate in Applied Science – Automotive Technology.

Course	Title	Credits
AUT-16302	Automotive Fundamentals	4
AUT-23104	Automotive Internship	5
Choose at least six credits from below:		
AUT-16100	Engine Fundamentals & Overhaul	4
AUT-16201	Fuel Systems & Emission Control	4
AUT-16401	Basic Electricity	3
AUT-16801	Automotive Electrical Systems	4
AUT-17703	Automotive Braking Systems	4
AUT-21800	Automatic Transmissions	4
AUT-26500	Steering, Suspension & Alignment	4
AUT-27000	Heating & Air Conditioning	3
AUT-27900	Manual Transmissions/Drivelines/Axles	4

AUTOMOTIVE POWERTRAIN SPECIALIST

Special Certificate (SAUT3)

Minimum Credits: 22
Contact Hours: 31

Introduction
Kirtland's Automotive Powertrain Specialist certificate is designed to provide the student with the necessary skills to gain entry-level employment in the automotive industry. This program is certified by the National Automotive Technicians Education Foundation (NATEF). Graduates of this program will be prepared for the Michigan Bureau of Automotive Regulation Mechanic Certification and the National Institute for Automotive Service Excellence (ASE) Technician Certification tests for certification in the following: 1) brakes, and 2) manual drivetrain and axles. Students wanting to continue in this program may pursue the Certificate – Automotive Technology Master Certification or the Associate in Applied Science – Automotive Technology.

Course	Title	Credits
AUT-16100	Engine Fundamentals & Overhaul	4
AUT-16302	Automotive Fundamentals	4
AUT-17703	Automotive Braking Systems	4
AUT-20402	Intro to Auto Service Management	2
AUT-23102	Auto Service Area - Powertrain	4
AUT-27900	Manual Transmission/ Drivelines/Axles	4

BUSINESS

Certificates
- *Bookkeeping*
- *Entrepreneurship*
- *General Business*

Associate in Applied Science
- *Business Management*

Associate
- *Business Administration*

Partnership Programs
- *Central Michigan University*
- *Davenport University*
- *Franklin University*
- *Kaplan University*
- *Lake Superior State University*
- *Northwood University*

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

Foundation
Kirtland Community College recognizes the importance of students possessing basic academic skills in English, reading, and mathematics in order to successfully complete college-level courses. Therefore, all entry-level students are required to demonstrate their proficiency in basic academic skills, as these courses are the foundation for success in all programs. The student's advisor will indicate which of the following courses need to be taken based on ACT scores or COMPASS placement testing results. It is highly recommended that students take these courses during the first semester in order to prepare for the road ahead, as well as possibly satisfying prerequisites needed for more advanced courses. Specific courses needed may be tracked below. *Students must plan additional time to complete their program requirements if placement results demonstrate the need to begin with preparatory courses (courses numbered less than 10000).*

☐ ENG-10000 Writing Lab (if required)
☐ English: _____
☐ Mathematics: _____
☐ Reading: _____

For more information, please contact the Business Department.
Judith Grenkowicz 989-275-5000, extension 219

BOOKKEEPING
Certificate of Completion (CBKP0)

Minimum Credits: 30
Contact Hours: 30-32

Introduction
Kirtland's Bookkeeping certificate offers a completely online program of study that will prepare a student to be a financial record keeper for a business. It will prepare students for entry-level positions in accounts receivable and accounts payable departments, payroll units, income tax firms, and financial services organizations. Students learn the theory of double-entry bookkeeping, the practice of journals and ledgers, preparing payroll documents, and reconciling banking statements. With a certificate in Bookkeeping, jobs are available in just about every corporate business and non-profit organization, including government services, business and consulting firms, retail and wholesale trade, health and social services, finance, insurance, real estate and the service industry. The certificate provides basic training and practical applications needed to analyze and prepare financial documents and handle recordkeeping functions for large and small businesses. Courses in bookkeeping basics, accounting principles, computerized accounting systems, along with computer science, legal environment and customer relations, round out the career skills needed for positions in this field. This program is ideal for self-motivated individuals who are comfortable working with numbers and detailed information in an office setting. This program also provides the basis for students to pursue the Associate in Business Administration degree.

Course	Title	Credits
ACC-10600 Or ACC-12100	Fundamentals of Accounting Or Accounting Principles I	4
ACC-12500	Computer Accounting w/QuickBooks	4
ACC-13100	Bookkeeping	4
BUS-10100	Introduction to Business	3
BUS-20100	Internship	3
BUS-21500	Legal Environment of Business	3
CIS-10500	Introduction to Computers	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
MKT-11500	Customer Relations	3

Suggested sequence of courses:

Semester I (Fall)
ACC-10600 or ACC-12100—Fund of Accounting or Accounting Principles I
BUS-10100—Intro to Business
CIS-10500—Intro to Computers
ENG-10000—Writing Lab
ENG-10303—English Composition I

Semester II (Winter)
ACC-12500—Computer Accounting w/QuickBooks
ACC-13100—Bookkeeping
BUS-21500—Legal Environment of Business
MKT-11500—Customer Relations

Semester III (Summer)
BUS-20100--Internship

ENTREPRENEURSHIP
Certificate of Completion (CENT0)

Minimum Credits: 33
Contact Hours: 33

Introduction
Kirtland's program in Entrepreneurship offers the student a broad exposure to the business world through a selected set of courses, which may be completed in one year. This program is ideal for the small business owner, manager, or those opting to get into small business for the first time. It also works well for those who have technical degrees and want to incorporate knowledge of business with their technical expertise. Students may also elect to pursue the Associate in Applied Science – Business Management at any point in this program.

Course	Title	Credits
ACC-12100	Accounting Principles I	4
ACC-12200	Accounting Principles II	4
ACC-12500	Computer Accounting/QuickBooks	4
BUS-10100	Introduction to Business	3
BUS-20101	Internship in Business & Marketing	3
BUS-21000	Principles of Management	3
BUS-21500	Legal Environment of Business	3
BUS-24500	Personnel Management	3
MKT-20000	Principles of Marketing	3
OIS-10500	Business Correspondence	3

GENERAL BUSINESS
Certificate of Completion (CBUS0)

Minimum Credits: 31
Contact Hours: 31-34

Introduction
Kirtland's program in General Business is designed to provide an overall background of training that is necessary for entry and success in the business world. The program is intended to lay a foundation for a great variety of entry-level positions that may ultimately lead to mid-management positions in business or industry. Students are given the opportunity to enhance decision-making, problem-solving and creative abilities. Emphasis is placed on management and business communications. Students may also elect to pursue the Associate in Applied Science – Business Management at any point in this program.

Course	Title	Credits
ACC-12100	Accounting Principles I	4
BUS-10100	Introduction to Business	3
CIS-10500 Or CIS-17001	Introduction to Computers Or Microsoft Office	3
OIS-10401/02/03 Or OIS-11401/02/03 Or ____-_____	Keyboarding I-A/B/C **See note below* Or Keyboarding II-A/B/C Or Business Elective	3
OIS-10500	Business Correspondence	3
and six credit hours from the following list:		
ACC-12500	Computer Accounting/QuickBooks	4
BUS-201--	Internship in Business & Marketing	3-9
BUS-20200	Grant Writing	3
BUS-21100	E-Commerce Management	3
BUS-21500	Legal Environment of Business	3
BUS-24500	Personnel Management	3
CIS-17001	Microsoft Office	3
MKT-11500	Customer Relations	3
MKT-20000	Principles of Marketing	3
MKT-20100	Principles of Retailing	3
MKT-20200	Internet Marketing	3
MKT-20400	Advertising	3
OIS-18201/02/03	Word Processing I-Word-A/B/C	3
OIS-21500	Desktop Publishing for the Office	3

General Education Requirements

Communications:

ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3

Math/Natural Science:

MTH-12000 Or OIS-11201	Intermediate Algebra or higher Or Business Calculations	3-4

Notes: * Students who have completed one year of high school typing may take OIS-11401/2/3 Keyboarding II-A/B/C or a Business elective.

BUSINESS MANAGEMENT
Associate in Applied Science (DBSM0)

Minimum Credits: 60
Contact Hours: 62-67

Introduction
Kirtland's program in Business Management is designed to provide an overall background of training that is necessary for entry and success in the business world. The program is intended to lay a foundation for a great variety of entry-level positions that may ultimately lead to mid-management positions in business or industry. Students are given the opportunity to enhance decision-making, problem-solving, and creative abilities. Emphasis is placed on management, marketing, and business communications. Any Business Management major who plans to eventually acquire a bachelor's degree after completion of the associate degree is encouraged to follow the Associate in Business Administration degree.

Course	Title	Credits
ACC-12100	Accounting Principles I	4
ACC-12200	Accounting Principles II	4
BUS-10100	Introduction to Business	3
BUS-21000	Principles of Management	3
BUS-21500	Legal Environment of Business	3
BUS-24500	Personnel Management	3
ECO-20100	Principles of Economics-MACRO	3
ECO-20200	Principles of Economics-MICRO	3
MKT-20000	Principles of Marketing	3
OIS-10401/02/03 Or BUS elective	Keyboarding I-A/B/C Or Business elective	3
OIS-10500	Business Correspondence	3
Up to 2 credits from below, if needed		
ACC-_____		
BUS-_____		
CIS-_____		
MKT-_____		
OIS-_____		

General Education

Communications (9-10 credits):

ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Into to Interpersonal & Public Comm	3

Humanities/Social Science (8-10 credits):

POL-10100	Introduction to American Government	3
PSY-10100	Introduction to Psychology	3
	Any Humanities	2-4

Math/Natural Science (6-9 credits):

MTH-12000	Intermediate Algebra or higher	3-4
	Any science course with a lab	3-5

ASSOCIATE IN BUSINESS ADMINISTRATION
(DABA1

Minimum Credits: 60
Contact Hours: 62-64

Introduction

The Associate in Business Administration degree is designed for students who plan to eventually complete a bachelor's degree in a business-related field. Listed below are some of the majors pursued by students following this program:

Accounting	Economics	General Business	Marketing	Public Administration
Advertising	Finance	Management	Personnel/Industrial Relations	

Students planning to transfer to a four-year college or university must consult with their advisor and carefully study the requirements of the four-year institution from which they intend to secure a bachelor's degree. Appropriate course substitutions may be made upon the recommendation of a student's advisor and with approval of the appropriate dean or associate dean. Substitutions are only made in accordance with the specific requirements of the baccalaureate degree-granting institution to which the student intends to transfer.

Students who have previously attended other colleges or universities may apply earned transfer credit in subject areas (i.e., psychology elective, biology elective, etc.) where deemed appropriate. This degree satisfies the requirements of the MACRAO Transfer Agreement as defined in the Handbook section of this catalog.

Course	Title	Credits
ACC-12100	Accounting Principles I	4
ACC-12200	Accounting Principles II	4
	Select 4-11 credit hours from the following:	
ACC-12500	Computer Accounting/QuickBooks	4
BUS-10100	Introduction to Business	3
BUS-201--	Internship in Business & Marketing	3-9
BUS-20200	Grant Writing	3
BUS-21000	Principles of Management	3
BUS-21100	E-Commerce Management	3
BUS-21500	Legal Environment of Business	3
BUS-24000	Financial Management	3
BUS-24500	Personnel Management	3
MKT-11000	Principles of Selling	3
MKT-11500	Customer Relations	3
MKT-20000	Principles of Marketing	3
MKT-20100	Principles of Retailing	3
MKT-20200	Internet Marketing	3
MKT-20400	Advertising	3
MKT-21000	Market Research	3

General Education

Communications (12-13 credits):

CIS-10500	Introduction to Computers	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Into to Interpersonal & Public Comm	3

Humanities (8-10 credits):

	Select 2-3 credits from Art, Music, or Theater	3
	Select 3-4 credits from Journalism, Languages, or Literature	3-4
	Any HIS (History) or PHL(Philosophy)	3

Social Science (12 credits):

	Any ANT (Anthropology) or PSY (Psychology) or SOC (Sociology) Elective	3
ECO-20100	Principles of Economics (Macroeconomics)	3
ECO-20200	Principles of Economics (Microeconomics)	3
POL-10100	Introduction to American Government	3

Math & Natural Science (9-13 credits):

MTH-13000	College Algebra or higher	3-4
MTH-20600	Application in Statistics	3-4
	One science course with a lab	3-5

COMPUTER INFORMATION SYSTEMS

Certificates

- *Computer Technician*
- *Webmaster*

Associate

- *Associate in Computer Information Systems*
- *Associate in Computer Science*

Partnership Programs

- *Central Michigan University*
- *Davenport University*
- *Ferris State University*
- *Franklin University*
- *Saginaw Valley State University*

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

Foundation

Kirtland Community College recognizes the importance of students possessing basic academic skills in English, reading, and mathematics in order to successfully complete college-level courses. Therefore, all entry-level students are required to demonstrate their proficiency in basic academic skills, as these courses are the foundation for success in all programs. The student's advisor will indicate which of the following courses need to be taken based on ACT scores or COMPASS placement testing results. It is highly recommended that students take these courses during the first semester in order to prepare for the road ahead, as well as possibly satisfying prerequisites needed for more advanced courses. Specific courses needed may be tracked below. *Students must plan additional time to complete their program requirements if placement results demonstrate the need to begin with preparatory courses (courses numbered less than 10000).*

☐ ENG-10000 Writing Lab (if required)
☐ English: _____
☐ Mathematics: _____
☐ Reading: _____

For more information, please contact the Computer Information Systems Department.

Lisa Balbach (balbachl@kirtland.edu) 989-275-5000, extension 414
Gene Frazier (frazierg@kirtland.edu) 989-275-5000, extension 293

COMPUTER TECHNICIAN

Certificate of Completion (CTEC0)

Minimum Credits: 33
Contact Hours: 33-34

Introduction

Kirtland Community College's Computer Technician program is designed to provide a comprehensive background of training necessary for success in technically oriented, computer-related jobs. Students will acquire skills that will allow them to analyze hardware and software related problems, assess solutions, implement the best solution, and evaluate the results. The program is intended to lay a foundation for a large variety of entry-level positions in the computer repair field. Emphasis is placed on both theoretical and hands-on applications. Students may also elect to pursue the Associate in Applied Science: Technology Management degree at any point in this program.

Course	Title	Credits
CIS-10500	Introduction to Computers	3
CIS-19600	Hardware Certification	3
CIS-19700	OS Certification	3
CIS-22400	UNIX	2
CIS-26000	Intro to Computer Networking	3
CIS-27001	Programming I	3
CIS-280--	Internship in Computer Info Sys	3-9
CIS-21000 Or CIS-26100 And CIS-26200 And CIS-26300	Internet & Web Page Development Or Internet And Web Pages And Advanced Web Pages	3
ENG-10000	Writing Lab, if needed	0-1
ENG-10303	English Composition I w/Computers	3
	Electives from following list:	1-6
CIS-11700	Visual Basic I	3
CIS-17001	Microsoft Office	3
CIS-22500	Spreadsheets	3
CIS-23501	Database Design	3
CIS-26400	JavaScript	3
CIS-27101	Programming II	4
MTH-12000	Intermediate Algebra	4
OIS-10100	Basic Keyboarding	1

WEBMASTER
Certificate of Completion (CWEB0)

Minimum Credits: 45
Contact Hours: 48-54

Introduction
Kirtland Community College's Webmaster certificate is designed to provide a background of training necessary for web based programming and development. The certificate is designed to meet the needs of two distinct groups of students: students desiring more technical programming and students desiring more artistic programming. The two tracks described below meet the needs of each group. Both tracks provide students with the skills needed to develop both static and dynamic (interactive) web pages. Students following either track may also elect to pursue the Associate in Applied Science: Technology Management degree at any point in this program.

Technical Track
Courses in this track focus on basic and advanced web development programming skills. Students will also obtain a broad background in hardware, software and networking.

Graphic Design Track
Many graphic designers are also webmasters. Courses in this track include both graphic design and basic web programming skills which will give students expertise in both areas.

Required Courses in Both Tracks (30 credits):
The courses outlined below are required in both tracks of this certificate program:

Course	Title	Credits
ART-10500	Introduction to Design	3
ART-19000	Digital Communications	3
ART-27545	Computer Generated Images I	3
ENG-10403 Or ENG-10602	English Composition II w/Computers Or Technical Writing w/Computers	3
CIS-10500	Introduction to Computers	3
CIS-21000	Internet and Web Development	3
CIS-21500	Web Animation & Multimedia	3
CIS-26400	JavaScript	3
CIS-27001	Programming I	3
CIS-27201	Web Programming	3

Additional Courses in Technical Track (15 credits):

CIS-22400	UNIX	2
CIS-26000	Intro to Networking	3
CIS 27101	Programming II	4
	CIS Electives (Select 2 courses):	
CIS-11700	Visual Basic I	3
CIS-17001	Microsoft Office	3
CIS-19600	Hardware Certification	3
CIS-19700	OS Certification	3
CIS-23501	Database Design	3
CIS-28000	Internship	3

Additional Courses in Graphic Design Track (16 credits):

ART-10600	Fundamentals of Drawing I	3
ART-11500	Photography I	3
ART-25000	Illustration I	3
ART-28000	Portfolio	3
CIS-21900	MacIntosh O.S. X	1
	Art Electives (Select 1 course):	
ART-17000	Graphic Studio	3
ART-20600	Drawing II	3
ART-21500	Photography II	3
ART-27546	Computer Generated Images II	3

ASSOCIATE IN COMPUTERS

Minimum Credits: 60

Computer Science (DACP0) — **Contact Hours: 62-69**

or Computer Information Systems (DACP1) — **Contact Hours: 65-70**

Introduction

Students interested in pursuing a career in the computer field should plan to eventually complete a bachelor's degree at a four-year school of their choice. Computer majors are found in two separate areas: Computer Information Systems and Computer Science.

Computer Science degrees are mathematically and engineering oriented. Positions of employment would include computer programmers, systems programmers, software engineers, systems engineers, database administrators, network administrators, systems administrators, or systems analysts. Degrees in this area include the following: Software Engineering, Computer Science, Computer Engineering or Computer Networking.

Computer Information Systems degrees are business oriented. Positions of employment would include computer programmers, application programmers, systems analysts, network administrators, database administrators, systems administrators, web developers, or microcomputer specialists. Degrees in these areas include the following: Management Information Systems (MIS), Computer Information Systems (CIS) or Information Systems (IS).

Students planning to transfer to a four-year college or university must consult with a Computer Information Systems (CIS) advisor and carefully study the requirements of the four-year institution from which they intend to secure a bachelor's degree. Appropriate course substitutions may be made upon the recommendation of a student's advisor and with the approval of the appropriate dean. Substitutions are only made in accordance with the specific requirements of the baccalaureate degree granting institution to which the student intends to transfer.

Students who have previously attended other colleges or universities may apply earned transfer credit in subject areas (i.e., psychology, elective, biology elective etc.) where deemed appropriate. This degree also satisfies the requirements of the MACRAO Transfer Agreement as defined in the handbook section of the college catalog.

Suggested sequencing of courses for Computer Science (DACP0):

Year 1: Fall Semester	Year 2: Fall Semester
Chemistry with lab CIS 10500—Intro to Computers ENG-10000—Writing Lab ENG-10303—English Composition I MTH-12000—Intermediate Algebra or higher or elective from list if math sequence is complete (excluding MTH-20500/20600)	CIS-27001—Programming I GEO-10000 or POL-20000 or POL-20100—World Geography or International Relations or Comparative Government Humanities elective from ART, MUS, or THE MTH-22002—Calculus I or higher or elective course if math sequence is already completed SPE-10500 or SPE-11400—Fund of Speech or Interpersonal & Public Comm
Year 1: Winter Semester	**Year 2: Winter Semester**
ENG-10403—English Composition II MTH-13000—College Algebra or higher or elective from list if math sequence is complete (excluding MTH-20500/20600) MTH-14000—Trigonometry or higher or elective from list if math sequence is complete (excluding MTH-20500/20600) POL-10100—Intro to American Government PSY-10100 or SOC-10100—Intro to Psychology or Intro to Sociology	BIO course from list CIS-27101—Programming II CIS or MTH elective from list HIS course from list Humanities elective—Language or Literature course

Suggested sequencing of courses for Computer Information Systems (DACP1):

Year 1: Fall Semester	Year 2: Fall Semester
Chemistry with lab CIS 10500—Intro to Computers ENG-10000—Writing Lab ENG-10303—English Composition I MTH-12000—Intermediate Algebra or higher or elective from list if math sequence is complete (excluding MTH-20500/20600)	CIS-27001—Programming I GEO-10000 or POL-20000 or POL-20100—World Geography or International Relations or Comparative Government Humanities elective--Language or Literature course SPE-10500 or SPE-11400—Fund of Speech or Interpersonal & Public Comm CIS elective from approved list
Year 1: Winter Semester	**Year 2: Winter Semester**
BIO course from list ENG-10403—English Composition II MTH-13000—College Algebra or higher or elective from list if math sequence is complete (excluding MTH-20500/20600) POL-10100—Intro to American Government PSY-10100 or SOC-10100—Intro to Psychology or Intro to Sociology	CIS-27101—Programming II CIS or MTH elective from list HIS course from list Humanities elective from ART, MUS, or THE 2 CIS electives from approved list

Note: Electives are degree-specific, and are listed on the following pages. For assistance with course selection, sequencing and arranging your schedule, please consult with your advisor.

ASSOCIATE IN COMPUTERS
Computer Science (DACP0)

Minimum Credits: 60
Contact Hours: 62-69

Communications (12-13 credits):

Course	Title	Credits
CIS-10500	Introduction to Computers	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal & Public Communication	3

Humanities (8-10 credits):

	Select 2-3 credits from Art, Music, or Theatre	2-3
Note:	Select 3-4 credits from Languages or Literature *See CIS advisor for recommended courses.*	3-4
HIS-10500 Or HIS-10600 Or HIS-20100 Or HIS-20200 Or HIS-20300 Or HIS-20400	History of World Societies to 1500 Or History of World Societies Since 1500 Or United States History to 1865 Or United States History Since 1865 Or Michigan History Or The American Civil War	3

Social Science (9-10 credits):

PSY-10100 Or SOC-10100	Introduction to Psychology Or Introduction to Sociology	3
GEO-10000 Or POL-20000 Or POL-20100	World Geography Or International Relations Or Comparative Government	3-4
POL-10100	Introduction to American Government	3

Math/Natural Science (10-24 credits):

MTH-12000	Intermediate Algebra (if needed)	0-4
MTH-13000	College Algebra (if needed)	0-4
MTH-14000	Trigonometry (if needed)	0-3
MTH-22002	Calculus I or higher	3-4
Note:	Chemistry w/lab *See CIS advisor for recommended course.*	4-5
BIO-10100 Or BIO-20100 Or BIO-20200 Or BIO-21000 Or BIO-21300 *Note:*	General Biology Or General Botany Or General Zoology Or Microbiology Or Nature Study *See CIS advisor for recommended course.*	3-4

CIS Requirements and approved electives (7-21 credits):

CIS-27001	Programming I	3
CIS-27101	Programming II	4
	Allowed electives * (See note below):	
CIS-11700	Visual Basic I	3
CIS-17001	Microsoft Office	3
CIS-22400	UNIX	2
CIS-23501	Database Design	3
CIS-26000	Intro to Computer Networking	3
MTH-22102	Calculus II	4
***Note:**	**MTH-20500 or 20600 cannot be used to fulfill requirements for this degree.**	

ASSOCIATE IN COMPUTERS
Computer Information Systems (DACP1)

Minimum Credits: 60
Contact Hours: 65-70

Communications (12-13 credits):

Course	Title	Credits
CIS-10500	Introduction to Computers	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal & Public Communication	3

Humanities (8-10 credits):

	Select 2-3 credits from Art, Music, or Theatre	2-3
Note:	Select 3-4 credits from Languages or Literature See CIS advisor for recommended courses.	3-4
HIS-10500 Or HIS-10600 Or HIS-20100 Or HIS-20200 Or HIS-20300 Or HIS-20400	History of World Societies to 1500 Or History of World Societies Since 1500 Or United States History to 1865 Or United States History Since 1865 Or Michigan History Or The American Civil War	3

Social Science (9-10 credits):

PSY-10100 Or SOC-10100	Introduction to Psychology Or Introduction to Sociology	3
GEO-10000 Or POL-20000 Or POL-20100	World Geography Or International Relations Or Comparative Government	3-4
POL-10100	Introduction to American Government	3

Math/Natural Science (10-17 credits):

BIO-10100 Or BIO-20100 Or BIO-20200 Or BIO-21000 Or BIO-21300 *Note:*	General Biology Or General Botany Or General Zoology Or Microbiology Or Nature Study *See CIS advisor for recommended course.*	3-4
Note:	Chemistry w/lab *See CIS advisor for recommended course.*	4-5
MTH-12000	Intermediate Algebra (if needed)	0-4
MTH-13000	College Algebra	3-4

CIS Requirements and approved electives (10-21 credits):

CIS-27001	Programming I	3
CIS-27101	Programming II	4
	Allowed electives * (See note below):	
ACC-12100	Accounting Principles I	4
ACC-12200	Accounting Principles II	4
BUS-10100	Introduction to Business	3
CIS-11700	Visual Basic I	3
CIS-17001	Microsoft Office	3
CIS-22400	UNIX	2
CIS-22500	Spreadsheets	3
CIS-23501	Database Design	3
CIS-26000	Intro to Computer Networking	3
ECO-20100	Principles of Economics-Macroeconomics	3
ECO-20200	Principles of Economics-Microeconomics	3
***Note:**	**MTH-20500 or 20600 cannot be used to fulfill requirements for this degree.**	

TECHNOLOGY MANAGEMENT
Associate in Applied Science (DTEC0)

Minimum Credits: 60
Contact Hours: 61-76

Introduction
The Technology Management degree is designed for students who want to apply their prior and current technical training and/or education toward the completion of an associate degree. This degree is an appealing choice for students who are former military, current military, or non-completers of one or more technical education programs.

General Education Requirements, 23-30 credits:

Course	Title	Credits
CIS-10500	Introduction to Computers	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403 Or ENG-10602	English Composition II w/Computers Or Technical Writing w/Computers	3
MTH-12000	Intermediate Algebra or higher	3-4
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal & Public Comm	3
	Humanities elective	2-4
	Social Science elective	3-4
	Any Science elective with lab	3-5

Leadership/Management, 6 credits:

Course	Title	Credits
	Select 2 courses (or 6 credits) from:	
BUS-10100 And/or BUS-21000 And/or BUS-24500	Introduction to Business And/or Principles of Management And/or Personnel Management And/or Military Credit for Supervision, Management, or Leadership	6

Technical Elective Courses, 15 credits:
College courses or military equivalent credit from the following list of career/technical programs must be taken to fulfill this requirement. Substitute courses may be taken with the approval of an advisor and academic dean.

Technical Electives: Accounting, Allied Health, Automotive Technology, Aviation, Business, Carpentry, Computer Aided Drafting, Computer Information Systems, Cosmetology, Criminal Justice, Electrical Technology, Engineering Design Technologies, Fire Fighter Training, Heating/Ventilation/AC/Refrigeration, Industrial Maintenance, Machine Tool Technology, Manufacturing Processes Technology, Marketing, Massage Therapy, Nursing, Office Information Systems, Outdoor Power Equipment, Pharmacy, Plumbing, Sonography, Surgical Technology, Welding or other Technical elective transferred to Kirtland as "TEC" or ZZZ."

General Elective Courses, 15-16 credits:

Any 10000-level or higher course can be used. Up to three credits in Physical Education courses can be applied toward degree requirements.

CONSTRUCTION TECHNOLOGIES

The following programs of study are available only at the Kirtland M-TEC in Gaylord.

Certificates

- *Carpentry*
- *Electrical Technology*
- *Heating/Ventilation/Air Conditioning/Refrigeration*

Associate in Applied Science

- *Carpentry*
- *Electrical Technology*
- *Heating/Ventilation/Air Conditioning/Refrigeration*

Partnership Programs

- *Davenport University*
- *Ferris State University*
- *Franklin University*

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

Foundation

Kirtland Community College recognizes the importance of students possessing basic academic skills in English, reading, and mathematics in order to successfully complete college-level courses. Therefore, all entry-level students are required to demonstrate their proficiency in basic academic skills, as these courses are the foundation for success in all programs. The student's advisor will indicate which of the following courses need to be taken based on ACT scores or COMPASS placement testing results. It is highly recommended that students take these courses during the first semester in order to prepare for the road ahead, as well as possibly satisfying prerequisites needed for more advanced courses. Specific courses needed may be tracked below. *Students must plan additional time to complete their program requirements if placement results demonstrate the need to begin with preparatory courses (courses numbered less than 10000).*

☐ ENG-10000 Writing Lab (if required) ☐ Mathematics: _____
☐ English: _____ ☐ Reading: _____

Prerequisites:

WorkKeys® is used to assess the core competency levels of reading, mathematics, locating information, and writing. Students are required to take WorkKeys® assessments as they proceed to completion of requirements for a certificate and/or degree.

For more information, please contact the M-TEC.
Katie Lorence 989-705-3605
mtec.kirtland.edu

CARPENTRY
Certificate of Completion (CCPT1)

Minimum Credits: 30.7
Contact Hours: 47.5

After completing requirements for the certificate, students may continue on with the Associate in Applied Science: Carpentry.

Core Courses (3.7 credits, 92.5 classroom hours):

Course	Title	Credits	Classroom Hours
COR-10001	Basic Safety	0.6	15
COR-10002	Introduction to Construction Math	0.6	15
COR-10003	Introduction to Hand Tools	0.4	10
COR-10004	Introduction to Power Tools	0.2	5
COR-10005	Introduction to Blueprints	0.3	7.5
COR-10006	Basic Rigging	0.8	20
COR-10007	Basic Communication Skills	0.2	5
COR-10008	Employability Skills	0.6	15

Carpentry Level 1 (6.1 credits, 152.5 classroom hours):

CPT-10100	Orientation to the Trade	0.1	2.5
CPT-10101	Building Materials, Fasteners, & Adhesives	0.3	7.5
CPT-10102	Hand and Power Tools	0.4	10
CPT-10103	Reading Plans & Elevations	0.8	20
CPT-10104	Floor Systems	1.0	25
CPT-10105	Wall & Ceiling Framing	0.8	20
CPT-10106	Roof Framing	1.5	37.5
CPT-10107	Intro to Concrete and Reinforcing Materials	0.2	5
CPT-10108	Windows & Exterior Doors I	0.5	12.5
CPT-10109	Basic Stair Layout	0.5	12.5

Carpentry Level 2 (6.6 credits, 165 classroom hours):

CPT-10200	Roofing Applications: Residential	1.0	25
CPT-10201	Thermal and Moisture Protection	0.3	7.5
CPT-10202	Exterior Finishing: Residential	1.4	35
CPT-10203	Cold-Formed Steel Framing	0.6	15
CPT-10204	Drywall Installation	0.6	15
CPT-10205	Drywall Finishing	0.5	12.5
CPT-10206	Doors and Door Hardware	0.8	20
CPT-10207	Window, Door, Floor, and Ceiling Trim	1.0	25
CPT-10208	Cabinet Installation	0.4	10

Carpentry Level 3 (6.9 credits, 172.5 classroom hours):

CPT-20300	Rigging Equipment	0.4	10
CPT-20301	Rigging Practices	0.6	15
CPT-20302	Properties of Concrete	0.4	10
CPT-20303	Reinforcing Concrete	0.6	15
CPT-20304	Handling and Placing Concrete	0.9	22.5
CPT-20305	Trenching and Excavating	0.4	10
CPT-20306	Foundation & Slab-on-Grade	0.8	20
CPT-20307	Vertical Formwork	1.1	27.5
CPT-20308	Horizontal Formwork	0.9	22.5
CPT-20309	Tilt-Up Wall Panels	0.8	20

Carpentry Level 4 (6.4 credits, 161 classroom hours):

CPT-20400	Site Layout I: Distance Measurements Site	0.9	22.5
CPT-20401	Site Layout II: Angular Measurement	1.2	30
CPT-20402	Advanced Roof Systems	0.8	20
CPT-20403	Advanced Wall Systems	1.0	25
CPT-20404	Advanced Stair Systems	1.0	25
CPT-20405	Introduction to Light Equipment	0.4	10
CPT-20406	Commercial Finish Work	0.2	5
CPT-20407	Site Preparation	0.3	7.5
CPT-20408	Introductory Skills for the Crew Leader	0.6	16

Core Capstone (1 credit. 16 classroom hours):

CAP-10000	Core Capstone (or min. competency levels)	1	16

CARPENTRY **Minimum Credits: 60.7**
Associate in Applied Science (DCPT1) **Contact Hours: 78.47-86.47**

Students who have completed the requirements for the certificate may continue on with the Associate in Applied Science: Carpentry by completing the additional requirements listed below.

Engineering Design Technologies (7 credits, 128 classroom hours):

Course	Title	Credits	Classroom Hours
EDT-11000	Detailing w/AutoCAD	3	64
EDT-14000	Architectural Drawing/CAD	4	64
	EDT Totals	**7**	**128**

General Education (23-30 credits, 368-496 classroom hours):

	Humanities elective	2-4	32-64
	Any Science Course with lab	3-5	48-80
	Any Social Science Elective	3-4	48-64
ENG-10000	Writing Lab (if required)	0-1	0-32
ENG-10303	English Composition I w/Computers	3	48
ENG-10403 Or ENG-10602	English Composition II w/Computers Or Technical Writing	3	48
MTH-12000	Intermediate Algebra or higher (excluding MTH-20500 or MTH-20600)	3-4	48-64
POL-10100	Introduction to American Government	3	48
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal & Public Comm	3	48

Summary—Carpentry--Associate in Applied Science

	Credits	Classroom Hours
CPT Certificate of Completion	**30.3**	**748.5**
Engineering Design Technologies	**7**	**128**
General Education	**23**	**368-496**
Total	**60.3**	**1,244.5-1,372.5**

ELECTRICAL TECHNOLOGY

Minimum Credits: 30

Certificate of Completion (CELC1)

Contact Hours: 46.31

After completing requirements for the certificate, students may continue on with the Associate in Applied Science: Electrical Technology.

Core Courses (3.7 credits, 92.5 classroom hours):

Course	Title	Credits	Classroom Hours
COR-10001	Basic Safety	0.6	15
COR-10002	Introduction to Construction Math	0.6	15
COR-10003	Introduction to Hand Tools	0.4	10
COR-10004	Introduction to Power Tools	0.2	5
COR-10005	Introduction to Blueprints	0.3	7.5
COR-10006	Basic Rigging	0.8	20
COR-10007	Basic Communication Skills	0.2	5
COR-10008	Employability Skills	0.6	15

Electrical Level 1 (4.5 credits, 112.5 classroom hours):

ELT-10101	Orientation to the Electrical Trade	0.1	2.5
ELT-10102	Electrical Safety	0.4	10
ELT-10103	Introduction to Electrical Circuits	0.3	7.5
ELT-10104	Electrical Theory	0.3	7.5
ELT-10105	Intro to the NEC	0.3	7.5
ELT-10106	Device Boxes	0.4	10
ELT-10107	Hand Bending	0.4	10
ELT-10108	Raceways & Fittings	0.8	20
ELT-10109	Conductors & Cables	0.4	10
ELT-10110	Basic Electrical Construction Drawings	0.3	7.5
ELT-10111	Residential Electric Services	0.6	15
ELT-10112	Electrical Test Equipment	0.2	5

Electrical Level 2 (5.8 credits, 145 classroom hours):

ELT-10202	Alternating Current	0.7	17.5
ELT-10203	Motors: Theory & Application	0.8	20
ELT-10204	Electrical Lighting	0.6	15
ELT-10205	Conduit Bending	0.6	15
ELT-10206	Pull & Junction Boxes	0.5	12.5
ELT-10207	Conductor Installations	0.4	10
ELT-10208	Cable Tray	0.3	7.5
ELT-10209	Conductor Terminations & Splices	0.3	7.5
ELT-10210	Grounding & Bonding	0.6	15
ELT-10211	Circuit Breakers & Fuses	0.5	12.5
ELT-10212	Control System/Fundamental Concepts	0.5	12.5

Electrical Level 3 (6.2 credits, 155 classroom hours):

ELT-20303	Load Calc – Branch & Feeder Circuits	0.7	17.5
ELT-20304	Conductor Selection & Calculations	0.6	15
ELT-20305	Practical Applications of Lighting	0.5	12.5
ELT-20306	Hazardous Locations	0.6	15
ELT-20307	Overcurrent Protection	1	25
ELT-20308	Distribution Equipment	0.5	12.5
ELT-20309	Transformers	0.5	12.5
ELT-20310	Commercial Electrical Services	0.4	10
ELT 20311	Motor Calculations	0.5	12.5
ELT-20312	Voice, Data, & Video	0.4	10
ELT-20313	Motor Controls	0.5	12.5

Electrical Level 4(7 credits, 175 classroom hours):

ELT-20404	Load Calculations – Feeder & Services	0.8	20
ELT-20405	Health Care Facilities	0.4	10
ELT-20406	Standby & Emergency Systems	0.4	10
ELT-20407	Basic Electronic Theory	0.4	10
ELT-20408	Fire Alarm Systems	0.6	15
ELT-20409	Specialty Transformers	0.4	10
ELT-20410	Advanced Motor Controls	0.8	20

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ELT-20411	HVAC Controls	0.6	15
ELT-20412	Heat Tracing & Freeze Protection	0.4	10
ELT-20413	Motor Operation & Maintenance	0.4	10
ELT-20414	Medium Voltage Termination & Splices	0.4	10
ELT-20415	Special Locations	0.8	20
ELT-20416	Introductory Skills for the Crew Leader	0.6	15

Core Capstone & Electives (2.8 credits, 61 classroom hours):

CAP-10000	Core Capstone (or minimum competency levels	1	16
	Technical electives approved by advisor (Choose from: CAP-20001 through 20004, CPT, HVC, IND, MPT, PLB, and/or WLD)	1.8	45

ELECTRICAL TECHNOLOGY

Minimum Credits: 60

Associate in Applied Science (DELC1)

Contact Hours: 70.31-78.31

Students who have completed the requirements for the certificate may continue on with the Associate in Applied Science: Electrical Technology by completing the requirements listed below. ***In addition to requirements for the certificate, students must complete the following requirements and any electives necessary.***

Engineering Design Technologies (formerly CAD)

Course	Title	Credits	Classroom Hours
EDT-11000	Detailing w/AutoCAD	3	64
EDT-14000	Architectural Drawing/CAD	4	64
	EDT Totals	**7**	**128**

General Education

	Humanities elective	2-4	32-64
	Any Science Course with lab	3-5	48-80
	Any Social Science Elective	3-4	48-64
ENG-10000	Writing Lab (if required)	0-1	0-32
ENG-10303	English Composition I w/Computers	3	48
ENG-10403 Or ENG-10602	English Composition II w/Computers Or Technical Writing	3	48
MTH-12000	Intermediate Algebra or higher (excluding MTH-20500 or MTH-20600)	3-4	48-64
POL-10100	Introduction to American Government	3	48
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal & Public Comm	3	48
	General Education Totals	**23-30**	**368-496**

Summary—Electrical Technology--Associate in Applied Science

	Credits	Classroom Hours
ELT Certificate of Completion	**30**	**741**
Engineering Design Technologies	**7**	**128**
General Education	**23**	**368-496**
Total	**60**	**1,237-1,365**

HEATING/VENTILATION/AC/REFRIGERATION

Minimum Credits: 30

Certificate of Completion (CHVC1)

Contact Hours: 46.31

After completing requirements for the certificate, students may continue on with the Associate in Applied Science: Heating / Ventilation / AC / Refrigeration.

Core Courses (3.7 credits, 92.5 classroom hours):

Course	Title	Credits	Classroom Hours
COR-10001	Basic Safety	0.6	15
COR-10002	Introduction to Construction Math	0.6	15
COR-10003	Introduction to Hand Tools	0.4	10
COR-10004	Introduction to Power Tools	0.2	5
COR-10005	Introduction to Blueprints	0.3	7.5
COR-10006	Basic Rigging	0.8	20
COR-10007	Basic Communication Skills	0.2	5
COR-10008	Employability Skills	0.6	15

HVAC Level 1 (4.1 credits, 102.5 classroom hours):

HVC-11000	Intro to HVAC	0.3	7.5
HVC-11001	Trade Mathematics	0.4	10
HVC-11002	Copper & Plastic Piping Practices	0.2	5
HVC-11003	Soldering & Brazing	0.3	7.5
HVC-11004	Ferrous Metal Piping Practices	0.2	5
HVC-11005	Basic Electricity	0.5	12.5
HVC-11006	Intro to Cooling	1.2	30
HVC-11007	Intro to Heating	0.6	15
HVC-11008	Air Distribution Systems	0.4	10

HVAC Level 2 (7 credits, 175 classroom hours):

HVC-10200	Commercial Air Side Systems	0.5	12.5
HVC-10201	Chimneys, Vents, & Flues	0.2	5
HVC-10202	Intro to Hydronic Systems	0.4	10
HVC-10203	Air Quality Equipment	0.2	5
HVC-10204	Leak Detect/Evacuate/Recover/Charge	0.8	20
HVC-10205	Alternating Current	0.3	7.5
HVC-10206	Basic Electronics	0.2	5
HVC-10207	Control Circuit Troubleshooting	1.2	30
HVC-10208	Troubleshooting Gas Heating	0.5	12.5
HVC-10209	Troubleshooting Cooling	0.8	20
HVC-10210	Heat Pumps	0.8	20
HVC-10211	Installation/Maintenance Practices	0.7	17.5
HVC-10212	Sheet Metal Duct Systems	0.2	5
HVC-10213	Fiberglass/Flex Duct Systems	0.2	5

HVAC Level 3 (5.8 credits, 145 classroom hours):

HVC-20300	Refrigerants & Oils	0.4	10
HVC-20301	Compressors	0.6	15
HVC-20302	Metering Devices	0.3	7.5
HVC-20303	Retail Refrigeration	0.8	20
HVC-20304	Commercial Hydronic Systems	0.5	12.5
HVC-20305	Steam Systems	0.4	10
HVC-20306	Planned Maintenance	0.8	20
HVC-20307	Water Treatment	0.4	10
HVC-20308	Troubleshooting Electronic Controls	0.3	7.5
HVC-20309	Troubleshooting Oil Heating	0.4	10
HVC-20310	Troubleshooting Heat Pumps	0.5	12.5
HVC-20311	Troubleshooting Accessories	0.4	10

HVAC Level 4 (7.2 credits, 180 classroom hours):

HVC-20400	Construction Drawing/Specification	1	25
HVC-20401	Air Properties & Air System Balancing	0.8	20
HVC-20402	Indoor Air Quality	0.6	15
HVC-20403	Energy Conservation Equipment	0.4	10
HVC-20404	Building Management Systems	0.7	17.5

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HVC-20405	System Start-Up & Shut-Down	0.9	22.5
HVC-20406	Heating & Cooling System Design	1	25
HVC-20407	Commercial & Industrial Refrigeration	0.9	22.5
HVC-20408	Alternative Heating & Cooling Equipment	0.4	10
HVC-20409	Introduction to Supervisory Skills	0.5	12.5

Core Capstone & Electives (2.2 credits, 46 classroom hours):

CAP-10000	Core Capstone (or minimum competency levels	1	16
	Technical electives approved by advisor (Choose from: CAP-2001 through 20004, CPT, ELT, IND, MPT, PLB, and/or WLD)	1.2	30

HEATING/VENTILATION/AC/REFRIGERATION — Minimum Credits: 60

Associate in Applied Science (DHVC1) — **Contact Hours: 70.31-78.31**

Students who have completed requirements for the certificate may continue on with the Associate in Applied Science: Heating / Ventilation / AC / Refrigeration by completing the requirements listed below. ***In addition to requirements for the certificate, students must complete the following requirements and any electives necessary.***

Engineering Design Technologies (7 credits, 128 classroom hours):

Course	Title	Credits	Classroom Hours
EDT-11000	Detailing w/AutoCAD	3	64
EDT-14000	Architectural Drawing/CAD	4	64

General Education (23-30 credits, 368-496 classroom hours):

	Humanities elective	2-4	32-64
	Any Science Course with lab	3-5	48-80
	Any Social Science Elective	3-4	48-64
ENG-10000	Writing Lab (if required)	0-1	0-32
ENG-10303	English Composition I w/Computers	3	48
ENG-10403 Or ENG-10602	English Composition II w/Computers Or Technical Writing	3	48
MTH-12000	Intermediate Algebra or higher (excluding MTH-20500 or MTH-20600)	3-4	48-64
POL-10100	Introduction to American Government	3	48
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal & Public Communication	3	48

Summary—Heating/Ventilation/AC/Refrigeration--Associate in Applied Science

	Credits	Classroom Hours
HVAC/R Certificate of Completion	**30**	**741**
Engineering Design Technologies	**7**	**128**
General Education	**23**	**368-496**
Total	**60**	**1,237-1,365**

COSMETOLOGY

Certificates
- *Cosmetology*
- *Cosmetology Instructor*
- *Nail Technician*

Associate in Applied Science
- *Cosmetology*

Partnership Programs
- *Davenport University*
- *Franklin University*

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

We welcome high school students into cosmetology programs.

Foundation
Kirtland Community College recognizes the importance of students possessing basic academic skills in English, reading, and mathematics in order to successfully complete college-level courses. Therefore, all entry-level students are required to demonstrate their proficiency in basic academic skills, as these courses are the foundation for success in all programs. The student's advisor will indicate which of the following courses need to be taken based on ACT scores or COMPASS placement testing results. It is highly recommended that students take these courses during the first semester in order to prepare for the road ahead, as well as possibly satisfying prerequisites needed for more advanced courses. Specific courses needed may be tracked below. *Students must plan additional time to complete their program requirements if placement results demonstrate the need to begin with preparatory courses (courses numbered less than 10000).*

☐ ENG-10000 Writing Lab (if required)
☐ English: _____
☐ Mathematics: _____
☐ Reading: _____

For more information, please contact the Cosmetology Department.

Shannon Weaver 989-275-5000, extension 274

COSMETOLOGY

Certificate of Completion (CCOS1)

Minimum Credits: 40
Contact Hours: 62.5

Introduction
Kirtland's certificate program in cosmetology is designed to provide specialized instruction and practical application for employment in beauty salons. This program prepares students to successfully pass the Michigan State Board Exam, which is required by law to practice cosmetology in Michigan. Job placement for this program is excellent. The courses are taught in modern facilities utilizing cutting-edge equipment. Students wanting to continue in this program may pursue an Associate in Applied Science – Cosmetology degree after obtaining a license.

We welcome high school students into cosmetology programs.

Course	Title	Credits
COS-12100	Cosmetology I	2.5
COS-12200	Cosmetology II	2.5
COS-12300	Cosmetology III	2.5
COS-12400	Cosmetology IV	2.5
COS-12500	Cosmetology V	2.5
COS-12600	Cosmetology VI	2.5
COS-12700	Cosmetology VII	2.5
COS-12800	Cosmetology VIII	2.5
COS-12900	Cosmetology IX	2.5
COS-13000	Cosmetology X	2.5
COS-13100	Cosmetology XI	2.5
COS-13200	Cosmetology XII	2.5
COS-13300	Cosmetology XIII	2.5
COS-13400	Cosmetology XIV	2.5
COS-13500	Cosmetology XV	2.5
COS-13600	Cosmetology XVI	2.5

COSMETOLOGY INSTRUCTOR

Minimum Credits: 55

Certificate of Completion (CCIN1)

Contact Hours: 30

Introduction

Kirtland's Cosmetology Instructor program is designed to provide instruction and practice to become a cosmetology instructor. The student must be a licensed cosmetology prior to entering the program. This program prepares students to pass the State of Michigan State Exam for Cosmetology Instructors. The student must have a high school diploma or GED certificate in order to take this exam. Students wanting to continue in this program may pursue an Associate in Applied Science – Cosmetology degree after obtaining a license.

We welcome high school students into cosmetology programs.

Course	Title	Credits
COS-22100	Cosmetology Instructor I	2.5
COS-22200	Cosmetology Instructor II	2.5
COS-22300	Cosmetology Instructor III	2.5
COS-22400	Cosmetology Instructor IV	2.5
COS-22500	Cosmetology Instructor V	2.5
COS-22600	Cosmetology Instructor VI	2.5
	Kirtland Certificate – Cosmetology *or* Current State of Michigan Cosmetology License	40

NAIL TECHNICIAN

Minimum Credits: 30

Certificate of Completion (CNTC0)

Contact Hours: 47

Introduction: The Nail Technician program is designed to prepare the student to pass the Michigan State Board Exam, and for employable skills as a nail technician. Students wanting to continue in this program may pursue an Associate in Applied Science: Cosmetology degree after obtaining a license. State of Michigan licensure exam may be taken after 400 contact hours.

We welcome high school students into cosmetology programs.

Course	Title	Credits
ACC-_____	Any Accounting course	3-4
COS-11200	Manicuring I	2.5
COS-11300	Manicuring II	2.5
COS-11400	Manicuring III	2.5
COS-11500	Manicuring IV	2.5
COS-11600	Manicuring V	2.5
COS-11700	Manicuring VI	2.5
COS-17500	Salon Management	1
ENG-10000	Writing lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
	Elective credits	7

COSMETOLOGY

Minimum Credits: 60

Associate in Applied Science (DSMN4)

Contact Hours: 80-103.5

Introduction

Kirtland's associate degree program in Cosmetology is designed to provide specialized instruction in practical application, communication skills, and general knowledge for employment as a licensed cosmetologist. This program prepares students to successfully pass the Michigan State Board of Cosmetology Exam. Job placement in this program is excellent. Transfer students must submit a copy of a current cosmetology license prior to completing this program. Licensed Cosmetologists also have the opportunity to continue their education by enrolling in the Cosmetology Instructor program.

We welcome high school students into cosmetology programs.

Course	Title	Credits
ACC-_____	Any Accounting course	3-4
BUS-10100	Introduction to Business	3
COS-17500	Salon Management	1
	Choose a Cosmetology sequence:	15-40
COS-11200 through 11700	Manicuring I-VI	(40)
Or COS-12100 through 13600	Or Cosmetology I-XVI	(15)
Or COS-22100 through 22600	Or Cosmetology Instructor I-VI	(15)
Or License	Or Michigan Cosmetology License	(15-40)
	Elective credits as needed	0-15

General Education

Communications (6-10 credits):

ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403 Or OIS-10500	English Composition II w/Computers Or Business Correspondence	3
	Any Speech course	3

Humanities/Social Science (8-11 credits):

	Any Humanities elective	2-4
	Any social science course	3-4
POL-10100	Introduction to American Government	3

Math/Natural Science (6-9 credits):

MTH-12000	Intermediate Algebra or higher	3-4
	Any science course with a lab	3-5

EDUCATION

Associate in Applied Science
- *Paraprofessional*

Associate in Teaching

Partnership Programs
- *Central Michigan University*
- *Spring Arbor University-Gaylord*

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

Foundation
Kirtland Community College recognizes the importance of students possessing basic academic skills in English, reading, and mathematics in order to successfully complete college-level courses. Therefore, all entry-level students are required to demonstrate their proficiency in basic academic skills, as these courses are the foundation for success in all programs. The student's advisor will indicate which of the following courses need to be taken based on ACT scores or COMPASS placement testing results. It is highly recommended that students take these courses during the first semester in order to prepare for the road ahead, as well as possibly satisfying prerequisites needed for more advanced courses. Specific courses needed may be tracked below. *Students must plan additional time to complete their program requirements if placement results demonstrate the need to begin with preparatory courses (courses numbered less than 10000).*

☐ ENG-10000 Writing Lab (if required)
☐ English: _____
☐ Mathematics: _____
☐ Reading: _____

***INTERESTED IN BECOMING A TEACHER?**

Students interested in pursuing a Bachelor of Arts or Bachelor of Science in Education degree should work closely with an advisor when planning pre-education course work for a degree in Elementary, Secondary, or Special Education. Students should choose their transfer degree based upon the requirements of the school to which they intend to transfer. Although some similarities exist in course requirements among the universities or colleges that prepare teachers, there are also differences that can complicate the advising process and the selection of appropriate courses for transfer to the student's university or college of choice. Oftentimes, the Associate in Arts or Associate in Science transfer degree offered at Kirtland will be appropriate, but for other schools, the Associate in Teaching degree more closely matches the requirements of the receiving school. Therefore, it is very important that each student meet with a counselor or faculty advisor.

For more information, please contact the Education advisors.

Don Dyer (Paraprofessional AAS)	989-275-5000, ext. 231
Denise Kemp (Associate in Teaching)	989-275-5000, ext. 274
Marcell Romancky (Associate in Teaching)	989-275-5000, ext. 290

PARAPROFESSIONAL
Associate in Applied Science (DPRO0)

Minimum Credits: 60
Contact Hours: 62-63

Introduction
Most paraprofessionals who work in schools who receive Title I funds are now required to complete an associate's degree or two years of study at an institution of higher learning, and/or pass a formal assessment to demonstrate knowledge and ability to assist in reading, writing, and mathematics instruction. There are many different associate degrees at Kirtland from which a student may select, but this program is tailored to those who want to focus primarily on courses that will provide direct benefit on the job.

Communications (9-10 credits):

Course	Title	Credits
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3
SPE-_____	Any Speech Course	3

Education (6 credits):

EDU-10000	Introduction to Teaching	3
EDU-24000	Technology in Education	3

Humanities/Social Science (8-10 credits):

	Any Humanities elective	2-4
POL-10100	Introduction to American Government	3
PSY-10100	Introduction to Psychology	3

Life Skills (3 credits):

CIS-10500	Introduction to Computers	3

Math/Natural Science (12-15 credits):

MTH-12000	Intermediate Algebra or higher	3-4
MTH-11700	Mathematics for Elementary Teachers I	3
MTH-21700	Mathematics for Elementary Teachers II	3
	One Science course with a lab	3-5

Electives (16-22 credits):

	Select any 100-level or higher courses. A maximum of three credits in physical education courses can be used to meet degree requirements. Please see an advisor for assistance in selecting program electives.	16-22

ASSOCIATE IN TEACHING
(DATG0)

Minimum Credits: 60
Contact Hours: 60-63

Introduction

The following program will prepare students who plan to be an elementary or secondary teacher. The program is designed for students who will be transferring to nearby universities to earn a bachelors degree in teaching. **Students should identify which university they plan to transfer to and meet with an advisor from that university during their freshman year at Kirtland Community College.** With curriculum information from the university, the student's Kirtland advisor can customize the students' freshman and sophomore schedule to best select the appropriate transfer courses. There may be substitutions to the curriculum below depending on the major, minor, university, and level of teaching targeted. You must meet with Marcell Romancky or Denise Kemp, the designated advisors at Kirtland Community College who can help students who are planning to become school teachers.

Communications (9-10 credits):

Course	Title	Credits
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal/Public Comm	3

Education (6 credits):

EDU-10000	Introduction to Teaching	3
EDU-24000	Technology in Education	3

Humanities/Social Science (25-26 credits):

ENG-23000 Or ENG-23100	American Literature before 1865 Or American Literature after 1865	3
FRE-11000 Or SPN-11000	French I Or Spanish I	3-4
GEO-10000	World Geography	4
HIS-20100 Or HIS-20200	United States History to 1865 Or United States History Since 1865	3
MUS-10100	Music History	3
PHL-21000	Introduction to Ethics	3
POL-10100	Introduction to American Government	3
PSY-10100	Introduction to Psychology	3

Life Skills (3 credits):

CIS-10500	Introduction to Computers	3

Math/Natural Science (9-12 credits):

AST-10201 And AST-10202	Astronomy I and Astronomy I Lab	4
BIO-10100	General Biology	3-4
MTH-12000	Intermediate Algebra	3-4

Select one option from below to complete the degree specialization you are seeking:

Elementary Education Option (6 credits):

MTH-11700	Mathematics for Elementary Teachers I	3
MTH-21700	Mathematics for Elementary Teachers II	3

Secondary Education Option (3-4 credits):

MTH-13000	College Algebra or higher	3-4

Electives (0-3 credits):

	Select any 100-level or higher courses if needed	0-3

Careers in
EMERGENCY SERVICES

Certificates
- *Correctional Officer*
- *Fire Science*

Associate in Applied Science
- *Corrections Administration*
- *Corrections Administration-Jail Administration*
- *Criminal Justice Administration*
- *Criminal Justice Pre-Service*
- *Fire Science Administration*

Associate
- *Criminal Justice-Generalist*

Partnership Programs
- *Alpena Community College*
- *Mid Michigan Community College*
- *North Central Michigan College*
- *Davenport University*
- *Franklin University*
- *Lake Superior State University*
- *Madonna University*

See information on our partnership programs on the web at http://kirtland.edu/ss/transferfrom.htm

Foundation

Kirtland Community College recognizes the importance of students possessing basic academic skills in English, reading, and mathematics in order to successfully complete college-level courses. Therefore, all entry-level students are required to demonstrate their proficiency in basic academic skills, as these courses are the foundation for success in all programs. The student's advisor will indicate which of the following courses need to be taken based on ACT scores or COMPASS placement testing results. It is highly recommended that students take these courses during the first semester in order to prepare for the road ahead, as well as possibly satisfying prerequisites needed for more advanced courses. Specific courses needed may be tracked below. *Students must plan additional time to complete their program requirements if placement results demonstrate the need to begin with preparatory courses (courses numbered less than 10000).*

☐ ENG-10000 Writing Lab (if required) ☐ Mathematics: _____
☐ English: _____ ☐ Reading: _____

FOR MORE INFORMATION, PLEASE CONTACT THE CAREERS IN EMERGENCY SERVICES DEPARTMENT:

Shawn Ott 989-275-5000, extension 283
Jerry Boerema 989-275-5000, extension 323

CORRECTIONAL OFFICER
Certificate of Completion (CCRR1)

Minimum Credits: 32
Contact Hours: 32-34

Introduction
The Correctional Officer certificate prepares graduates for jobs in a prison system as a corrections officer. This one- year certificate of completion incorporates the 15 semester hours of corrections, criminal justice, psychology, sociology, and human relations credits required by the Michigan Department of Corrections. All candidates must maintain a 2.0 cumulative GPA or better, with a C or better in all criminal justice courses. A mandatory dress code is in effect for all students enrolled in the corrections curriculum. Students have the opportunity to plan for transfer to a four-year college or university, and credits may be used toward a corrections administration degree.

Prerequisites
Applicants admitted to this program must meet the following special entrance requirements: 1) have no felony convictions; 2) have a high school diploma or GED; 3) interview by appointment with a criminal justice advisor before entering the program; 4) provide personal background information and sign a release form to facilitate possible background investigation (information and/or investigation may determine eligibility to enter the program); 5) sign and abide by the Criminal Justice Code of Conduct, which includes mandatory dress code; 6) submit proof of a physical examination, if required.

Course	Title	Credits
CJS-10000	Introduction to Criminal Justice	3
CJS-10900	Introduction to Corrections	3
CJS-11000	Careers in Emergency Services	1
CJS-11100	Legal Issues in Corrections	3
CJS-11200	Client Growth & Development	3
CJS-17000	Correctional Institutions & Facilities	3
CJS-17103	Correctional Officer's Report Writing	1
CJS-17200	Client Relations in Corrections	3
CJS-24000	Criminology	3
CJS-_____	CJS elective with advisor approval	3

General Education

Communications (3-4 credits):

ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3

Life Skills (3 credits):

CIS-10500	Introduction to Computers	3

CORRECTIONS ADMINISTRATION
Associate in Applied Science (DCRA0)

Minimum Credits: 64
Contact Hours: 66-73

Introduction
The Corrections Administration program is concerned with all segments of the criminal justice system. The major emphasis is placed on corrections history, development, sentencing, incarceration, community-based programs, diversion, probation, parole, prisoner's rights, offender violence, supervision, and corrections of the future. Graduates are prepared for jobs within a prison system. All candidates must maintain a 2.0 cumulative GPA or better, with a grade of C or better in all criminal justice courses. A mandatory dress code is in effect for all students enrolled in the corrections curriculum. Students have the opportunity to plan for transfer to a four-year college or university.

Prerequisites
Applicants admitted to this program must meet the following special entrance requirements: 1) have no felony convictions; 2) have a high school diploma or GED; 3) interview by appointment with a criminal justice advisor before entering the program; 4) provide personal background information and sign a release form to facilitate possible background investigation (information and/or investigation may determine eligibility to enter the program); 5) sign and abide by the Criminal Justice Code of Conduct, which includes mandatory dress code; 6) submit proof of a physical examination, if required.

Course	Title	Credits
CJS-10000	Introduction to Criminal Justice	3
CJS-10900	Introduction to Corrections	3
CJS-11000	Careers in Emergency Services	1
CJS-11100	Legal Issues in Corrections	3
CJS-11200	Client Growth & Development	3
CJS-17000	Correctional Institutions & Facilities	3
CJS-17103	Correctional Officer's Report Writing	1
CJS-17200	Client Relations in Corrections	3
CJS-20800	Criminal Justice Internship (Maximum of 9 credits)	3
CJS-21100	Narcotics Investigation	3
CJS-24000	Criminology	3
CJS-28100	Correctional Management	3
CJS-_____	One elective from below	3
Select 3 hours from the following:		
CJS-10200	Physical Training I	3
CJS-10800	Firearms	3
CJS-24500	Social Deviant Behavior	3

General Education

Communications (9-10 credits):

ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403 Or ENG-10602	English Composition II w/Computers Or Technical Writing w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal/Public Communication	3

Humanities/Social Science (11-13 credits):

POL-10100	Introduction to American Government	3
PSY-10100	Introduction to Psychology	3
SOC-10100	Introduction to Sociology	3
	Humanities elective	2-4

Life Skills (3 credits):

CIS-10500 Or OIS-10401/02/03	Introduction to Computers Or Keyboarding I A, B, & C	3

Math/Natural Scienc3 (6-9 credits):

MTH-12000	Intermediate Algebra or higher	3-4
	Science Elective AND Lab	3-5

CORRECTIONS ADMINISTRATION – JAIL ADMINISTRATION

Associate in Applied Science (DCRA1) **Minimum Credits: 64**

Contact Hours: 69-75

Introduction

The Corrections Administration - Jail Administration program is concerned with all segments of the criminal justice system. The major emphasis is placed on a 160-hour Local Corrections Academy, dealing with booking, intake and release, suicide awareness, report writing, prison behavior, correctional law, custody and security, PPCT defensive tactics, interpersonal communication, fire and safety, cultural diversity, sexual harassment, ethics, and stress management. Graduates are prepared for jobs within the local jail systems. All candidates must maintain a 2.0 cumulative GPA or better, with a grade of "C" or better in all criminal justice courses. A mandatory dress code is in effect for all students enrolled in the corrections curriculum. Students have the opportunity to plan for transfer to a four-year college or university.

Prerequisites

Applicants admitted to this program must meet the following special entrance requirements: 1) have no felony convictions; 2) have a high school diploma or GED; 3) interview by appointment with a criminal justice advisor before entering the program; 4) provide personal background information and sign a release form to facilitate possible background investigation (information and/or investigation may determine eligibility to enter the program); 5) sign and abide by the Criminal Justice Code of Conduct, which includes mandatory dress code; 6) submit proof of a physical examination, if required.

Course	Title	Credits
CJS-10000	Introduction to Criminal Justice	3
CJS-10900	Introduction to Corrections	3
CJS-11000	Careers in Emergency Services	1
CJS-17200	Client Relations in Corrections	3
CJS-20800	Criminal Justice Internship (Maximum of 9 credits)	3
CJS-21100	Narcotics Investigation	3
CJS-24000	Criminology	3
CJS-26007	Corrections Academy	10
CJS-28100	Correctional Management	3
	One elective from below:	
CJS-10200	Physical Training I	3
CJS-10800	Basic Firearms	3
CJS-11100	Legal Issues in Corrections	3
CJS-17000	Correctional Institutions & Facilities	3
CJS-24500	Social Deviant Behavior	3
CJS-11200	Client Growth & Development	3

General Education

Communications (9-10 credits):

ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403 Or ENG-10602	English Composition II w/Computers Or Technical Writing w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal/Public Communication	3

Humanities/Social Science (11-13 credits):

POL-10100	Introduction to American Government	3
PSY-10100	Introduction to Psychology	3
SOC-10100	Introduction to Sociology	3
	Humanities elective	2-4

Life Skills (3 credits):

CIS-10500 Or OIS-10401/02/03	Introduction to Computers Or Keyboarding I A, B, & C	3

Math/Natural Science (6-9 credits):

MTH-12000	Intermediate Algebra or higher	3-4
	Science Elective AND Lab	3-5

CRIMINAL JUSTICE ADMINISTRATION

Minimum Credits: 60

Associate in Applied Science (DCJA0)

Contact Hours: 62-69

Introduction

Criminal Justice Administration is a program concerned with all branches of law enforcement - federal, state, local, and private agencies - in crime prevention, law enforcement, detection and apprehension of criminals, deterrence of delinquency, corrections, probation, and parole. Graduates are prepared for jobs in any law enforcement agency for positions other than a certified police officer, i.e., corrections, dispatch, juvenile officer. All candidates must maintain a 2.0 cumulative GPA or better, with a grade of C or better in all CJS courses. A mandatory dress code is in effect for all students enrolled in the criminal justice administration curriculum. Students have the opportunity to plan for transfer to a four-year college or university, and credits may be used toward a Corrections Administration degree. Students should contact a criminal justice advisor for further questions.

Prerequisites

Applicants admitted to this program must meet the following special entrance requirements: 1) have no felony convictions; 2) have a high school diploma or GED; 3) interview by appointment with a criminal justice advisor before entering the program; 4) must provide personal background information and sign a release form to facilitate possible background investigation (information and/or investigation may determine eligibility to enter the program); 5) sign and abide by the Criminal Justice Code of Conduct, which includes mandatory dress code; 6) submit proof of a physical examination, if required.

Course	Title	Credits
CJS-10000	Introduction to Criminal Justice	3
CJS-11000	Careers in Emergency Services	1
CJS-17000	Correctional Institutions & Facilities	3
CJS-20800	Criminal Justice Internship*	3
CJS-24000	Criminology	3
Select 18 hours of electives from below		
CJS-10200	Physical Training I	3
CJS-10800	Firearms	3
CJS-10900	Introduction to Corrections	3
CJS-11100	Legal Issues in Corrections	3
CJS-11200	Client Growth & Development	3
CJS-17103	Correctional Officer's Report Writing	1
CJS-17200	Client Relations in Corrections	3
CJS-21100	Narcotics Investigation	3
CJS-24500	Social Deviant Behavior	3
CJS-28100	Correctional Management	3

General Education

Communications (9-10 credits):

ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403 Or ENG-10602	English Composition II w/Computers Or Technical Writing w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal/Public Communication	3

Humanities/Social Science (11-13 credits):

POL-10100	Introduction to American Government	3
PSY-10100	Introduction to Psychology	3
SOC-10100	Introduction to Sociology	3
	Humanities elective	2-4

Life Skills (3 credits):

CIS-10500 Or OIS-10401/02/03	Introduction to Computers Or Keyboarding I A, B, & C	3

Math/Natural Science (6-9 credits):

MTH-12000	Intermediate Algebra or higher	3-4
	Science Elective AND Lab	3-5

CRIMINAL JUSTICE PRE-SERVICE

Minimum Credits: 67

Associate in Applied Science (DCJP0)

Contact Hours: 91-96

Introduction

Criminal Justice Pre-Service is a program leading to certification by the Michigan Commission on Law Enforcement Standards (MCOLES). Upon completion of Police Academy and successfully passing a mastery exam administered by MCOLES, students will be eligible for employment as law enforcement officers in most police agencies in Michigan and some other states. Candidates in this program must maintain a GPA of 2.0 or better, with a C or better in all criminal justice courses. A mandatory dress code is in effect for all students enrolled in the criminal justice curriculum. Students have the opportunity to plan for transfer to a four-year college or university, and credits may also be used toward the criminal justice administration degree.

Prerequisites

Applicants admitted to the Pre-Service program must be qualified according to the rules and regulations of MCOLES and follow their policies and procedures. This program has special entrance requirements: 1) possess a valid Michigan motor vehicle operator's or chauffeur's license; 2) have no felony convictions; 3) have a high school diploma or GED; 4) interview by appointment with a criminal justice advisor before entering the program; 5) provide personal background information and sign a release form to facilitate possible background investigation (information and/or investigation may determine eligibility to enter the program); 6) sign and abide by the Criminal Justice Code of Conduct, which includes mandatory dress code; 7) have a physical examination before enrolling in Physical Training class; 8) successfully complete the MCOLES literacy and physical agility exams before entering Police Academy. A complete physical examination and hearing and vision tests are also required prior to entering the Police Academy.

Course	Title	Credits
CJS-10000	Introduction to Criminal Justice	3
CJS-10200	Physical Training I	3
CJS-11000	Careers in Emergency Services	1
CJS-20800	Criminal Justice Internship	3
CJS-24000	Criminology	3
CJS-24500	Social Deviant Behavior	3
CJS-26600	Police Academy	21

General Education

Communications (9-10 credits):

ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403 Or ENG-10602	English Composition II w/Computers Or Technical Writing w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal/Public Communication	3

Humanities/Social Science (12 credits):

POL-10100	Introduction to American Government	3
PSY-10100	Introduction to Psychology	3
PSY-20200	Abnormal Psychology	3
SOC-10100	Introduction to Sociology	3

Life Skills (3 credits):

CIS-10500 Or OIS-10401/02/03	Introduction to Computers Or Keyboarding I A, B, & C	3

Math/Natural Science (6-9 credits):

MTH-12000	Intermediate Algebra or higher	3-4
	Science Elective AND Lab	3-5

POLICE ACADEMY

The Academy is a 17-week, 40-hour per week, **MCOLES** (Michigan Commission on Law Enforcement Standards) certified program that covers the following: **Investigation -** Introduction to investigation, substantive criminal law, criminal procedure, investigation, court functions and civil law, crime scene process, special investigation, and investigation of domestic violence; **Patrol Procedures** - Patrol operations, interpersonal relations and conflict mediation, patrol techniques, report writing, and juveniles; **Detention and Prosecution** - Receiving and booking process, case prosecution, and civil process; **Police Skills** - First aid, firearms, police physical skills, and emergency vehicle operation; **Traffic** - Motor vehicle law, vehicle stops, traffic control and enforcement, operating under the influence of liquor, and motor vehicle traffic crash investigation; **Special Operations** - Emergency preparedness/disaster control, civil disorders, and tactical operations.

Note: *Students should refer to www.kirtland.edu/partnerships/emergencyservices.htm for more information about articulation agreements that are in place with other colleges.

POLICE ACADEMY PARTNERSHIPS

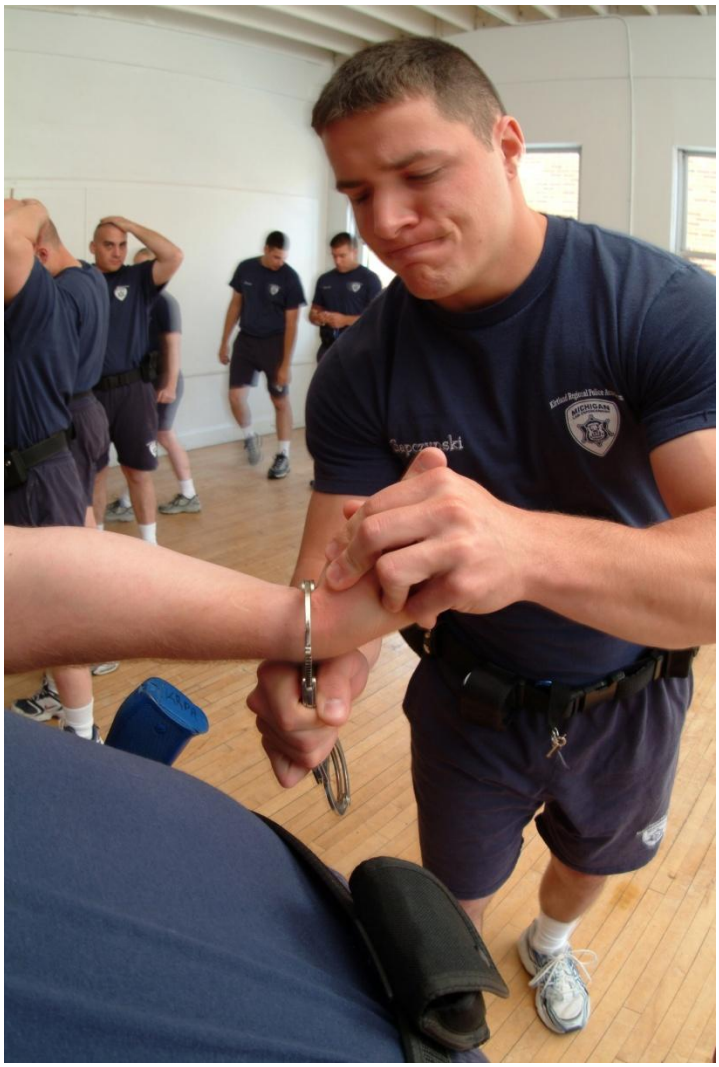
3 + 1 Transfer Agreement – Alpena Community College
3 + 1 Transfer Agreement – Mid Michigan Community College
3 + 1 Transfer Agreement – North Central Michigan College

Alpena Community College
Contact: Michael Roy
989-358-7208
roym@ns.alpena.cc.mi.us

Mid Michigan Community College
Contact: Barney Ledford
989-773-6622, ext. 230
bledford.@midmich.edu

North Central Michigan College
Contact: James Carter
Phone # 231-439-6379
jcart@ncmc.cc.mi.us

Kirtland Community College
Contact: Jerry Boerema or Shawn Ott
989-275-5000, extension 323
boeremaj@kirtland.edu



ASSOCIATE IN CRIMINAL JUSTICE –GENERALIST Minimum Credits: 60
(DCJG0) Contact Hours: 62-67

Introduction
The Associate in Criminal Justice - Generalist degree is designed for students who plan to transfer to a four-year college or university, and to help students transferring in from other colleges to meet requirements for entry into the Kirtland Regional Police Academy.

Students planning to transfer to a four-year college or university must consult with their advisor and carefully study the requirements of the four-year institution from which they intend to secure a bachelor's degree. Appropriate course substitutions may be made upon the recommendation of a student's advisor and with approval of the appropriate dean or associate dean. Substitutions are only made in accordance with the specific requirements of the baccalaureate degree-granting institution to which the student intends to transfer.

Students who have previously attended other colleges or universities may apply earned transfer credit in subject areas (i.e. psychology elective, biology elective, etc.) where deemed appropriate. This degree satisfies the requirements of the MACRAO Transfer Agreement as defined in the handbook section of this catalog.

Prerequisites
Applicants admitted to the Criminal Justice - Generalist program must meet the following special entrance requirements: 1) possess a valid Michigan motor vehicle operator's or chauffeur's license; 2) have no felony convictions; 3) have a high school diploma or GED; 4) interview by appointment with a criminal justice advisor before entering the program; 5) provide personal background information and sign release form to facilitate possible background investigation (information and/or investigation may determine eligibility to enter the program); 6) sign and abide by Criminal Justice Code of Conduct, which includes a mandatory dress code; 7) pass a physical examination before enrolling in physical training class.

Note: Students must maintain a GPA of 2.0 or higher and earn a "C" or better (2.0) in all Criminal Justice classes.

Course	Title	Credits
CJS-10000	Introduction to Criminal Justice	3
CJS-24000 (Or SOC-24000)	Criminology	3
	Criminal Justice electives with advisor approval	0-4

General Education

Communications (12-13 credits):

CIS-10500	Introduction to Computers	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal/Public Comm	3

Humanities (11-13 credits):

	Select a course from ART, MUS, or THE	2-3
	Select a course from Journalism, Languages, or Literature	3-4
HIS-10500 Or HIS-10600 Or HIS-20100 Or HIS-20200 Or HIS-20300 Or HIS-20400	History of World Societies to 1500 Or History of World Societies Since 1500 Or United States History to 1865 Or United States History Since 1865 Or Michigan History Or The American Civil War	3
PHL-20100 Or PHL-21000	Intro to Philosophy Or Intro to Ethics	3

Social Science (15-16 credits):

GEO-10000 Or POL-20000 Or POL-20100	World Geography Or International Relations Or Comparative Government	4 3 3
POL-10100	Introduction to American Government	3
PSY-10100	Introduction to Psychology	3
PSY-20200	Abnormal Psychology	3
SOC-10100	Introduction to Sociology	3

Math/Natural Science (6-9-14 credits):

MTH-13000	College Algebra or higher, excluding MTH-20500 and MTH-20600	3-4
	Select two Science Electives with Labs	6-10

FIRE SCIENCE

Certificate of Completion (CFFT1)

Minimum Credits: 30
Contact Hours: 30

Introduction
The Fire Science certificate prepares graduates for positions as public safety officers. This one-year certificate of completion will be in addition to the Associate in Applied Science – Pre-Service Degree and will satisfy the public safety requirements for those candidates wishing to pursue a career in public safety. All candidates for the Public Safety certificate must complete a total of 30 credit hours and maintain a cumulative grade point average of 2.0 or better with a "C" or better in all CJS and FFT courses. A mandatory code of conduct, including dress code, is in effect for all students enrolled in this curriculum.

Prerequisites
Applicants admitted to this program must meet the following special entrance requirements: 1) have no felony convictions; 2) have a high school diploma or GED; 3) interview by appointment with a criminal justice advisor before entering the program; 4) provide personal background information and sign a release form to facilitate possible background investigation (information and/or investigation may determine eligibility to enter the program); 5) sign and abide by the Criminal Justice Code of Conduct, which includes mandatory dress code; 6) submit proof of a physical examination, if required.

Course	Title	Credits
CJS-11000	Careers in Emergency Services	1
FFT-10500	Introduction to Fire Fighting	3
FFT-10600	Introduction to Arson Investigation	3
FFT-10700	Fire Fighter Safety & Survival	3
FFT-20500	Fire Fighter I	10
FFT-20600	Fire Fighter II	10

FIRE SCIENCE ADMINISTRATION

Minimum Credits: 67

Associate in Applied Science (DFFT1)

Contact Hours: 68-72

Introduction

Fire Science Administration is a program leading to an Associate in Applied Science degree. The courses in this program focus on meeting the needs of fire service personnel with consideration given to upgrading and enhancing the knowledge and skills of fire fighters. This program is designed to provide competency and leadership skills in the fire service field. Candidates for the Associate in Applied Science C Fire Science Administration degree must complete **a minimum total of 67 credit hours** and maintain a cumulative grade point average of 2.0 or better, with a "C" or better in all CJS and FFT courses. A mandatory code of conduct, including dress code, is in effect for all students enrolled in this curriculum. Students have the opportunity to plan for transfer to a four-year college or university. Students should contact a criminal justice advisor for further questions.

Prerequisites

Applicants admitted to this program must meet the following special entrance requirements: 1) have no felony convictions; 2) have a high school diploma or GED; 3) interview by appointment with a criminal justice advisor before entering the program; 4) provide personal background information and sign a release form to facilitate possible background investigation (information and/or investigation may determine eligibility to enter the program); 5) sign and abide by the Criminal Justice Code of Conduct, which includes mandatory dress code; 6) submit proof of a physical examination, if required; 7) have a physical examination before enrolling in Physical Training class.

Course	Title	Credits
CJS-10200	Physical Training	3
CJS-11000	Careers in Emergency Services	1
CJS-24500	Social Deviant Behavior	3
FFT-10500	Introduction to Fire Fighting	3
FFT-10600	Introduction to Arson Investigation	3
FFT-10700	Fire Fighter Safety & Survival	3
	And upon completion of all prerequisites:	
FFT-20500	Fire Fighter I	10
FFT-20600	Fire Fighter II	10

General Education

Communications (9-10 credits):

ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403 Or ENG-10602	English Composition II w/Computers Or Technical Writing w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal/Public Comm	3

Humanities/Social Science (8-10 credits):

POL-10100	Introduction to American Government	3
PSY-10100	Introduction to Psychology	3
	Humanities elective	2-4

Life Skills (3)

CIS-10500 Or OIS-10401/02/03	Introduction to Computers Or Keyboarding I-A, B & C	3

Math/Natural Science (11-12 credits):

BIO-10700	Essentials of Anatomy & Physiology	4
CHE-10003/04	Chemical Science & Lab	4
MTH-12000	Intermediate Algebra or higher	3-4

HEALTH SCIENCES

Special Certificate:

- *Basic Emergency Medical Technician*

Certificates:

- *Paramedic*
- *Pharmacy Technology*
- *Practical Nursing – Level I (Full and Part –time programs)*
- *Surgical Technology*

Associate in Applied Science:

- *Cardiac Sonography*
- *Emergency Medical Services (Paramedic)*
- *Nursing – Level II (Full and Part-time programs)*
- *Surgical Technology*

Other:

- *Nursing Assistant Course*

Partnership Programs

- *Davenport University*
- *Ferris State University*
- *Franklin University*
- *Mid Michigan Community College*

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

Foundation

Kirtland Community College recognizes the importance of students possessing basic academic skills in English, reading, and mathematics in order to successfully complete college-level courses. Therefore, all entry-level students are required to demonstrate their proficiency in basic academic skills, as these courses are the foundation for success in all programs. The student's advisor will indicate which of the following courses need to be taken based on ACT scores or COMPASS placement testing results. It is highly recommended that students take these courses during the first semester in order to prepare for the road ahead, as well as possibly satisfying prerequisites needed for more advanced courses. Specific courses needed may be tracked below. *Students must plan additional time to complete their program requirements if placement results demonstrate the need to begin with preparatory courses (courses numbered less than 10000).*

☐ ENG-10000 Writing Lab (if required)
☐ English: _____
☐ Mathematics: _____
☐ Reading: _____

For more information, please contact the Health Sciences Department.	
Anne Essmaker	989-275-5000, ext. 372
Katie Lorence (Cardiac Sonography)	989-705-3605
Mary Ann Frick (Surgical Technology)	989-275-5000, ext. 281

BASIC EMERGENCY MEDICAL TECHNICIAN (EMT)
Special Certificate (SEMT0)

Minimum Credits: 10
Contact Hours: 14

Introduction
The Basic EMT Certification program covers all basic techniques in emergency medical care within the responsibilities of the Basic Emergency Medical Technician (EMT) as a first responder and basic life supporter. Upon successful completion of this program, the student will be eligible to take the national certification examination which is required to obtain a state EMT license. Students wishing to continue in this program may pursue the Certificate - Paramedic or the Associate in Applied Science – Emergency Medical Services (Paramedic) degrees.

Prerequisites
ENG-09601 & MTH-06300 or competency.

The following course is the only required course in this program.

Course	Title	Credits
ALH-21701	Basic Emergency Medical Technician	10

Notes:
- Conviction for some criminal offenses may render a candidate ineligible for taking the national certification examination.
- Must have a felony-free criminal record.
- Students are required to complete all required courses with a grade of "C" or better.
- A student must be at least 18 years of age.
- Must have a valid Michigan driver's license.
- Proof of Measles, Mumps and Rubella vaccination is required.

PARAMEDIC
Certificate of Completion (CPAR0)

Minimum Credits: 52
Contact Hours: 62-64

Introduction
The Paramedic program is designed to provide basic knowledge and skills training necessary for entry-level positions as paramedics in advanced life support and transport. Following successful completion of this program, students are eligible to take the national certification examination for Paramedics, which is required to obtain a state license. Students wanting to continue in this program may pursue the Associate in Applied Science – Emergency Medical Services (Paramedic) degree.

Prerequisites
Students must have completed the Basic EMT program and be eligible for licensure, **or** have current valid State of Michigan Basic EMT license. Algebra competency must be demonstrated by COMPASS testing or by completion of MTH-07300 & MTH-07400.

Some of the courses listed may have prerequisites (listed in the course description section of the catalog). Therefore, students should consult advisors for assistance in planning course schedules.

Course	Title	Credits
ALH-21500	Paramedic I	13
ALH-22500	Paramedic II	13
ALH-23500	Paramedic III	16
ALH-24500	Paramedic IV	7
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3

Notes:
- Conviction for some criminal offenses may render a candidate ineligible for taking the national certification examination.
- Must have a felony-free criminal record.
- Students are required to complete all required courses with a "C" or better.
- A student must be at least 18 years of age.
- Must have a Michigan driver's license
- Proof of Measles, Mumps and Rubella vaccination is required.
- Hepatitis vaccination and current TB test are required.

FOR ADVISING IN THE ABOVE PROGRAMS PLEASE CALL ANNE ESSMAKER (989) 275-5000, EXT 372

EMERGENCY MEDICAL SERVICES

Minimum Credits: 60

Associate in Applied Science (DEMS0)

Contact Hours: 30-33 *(beyond Paramedic License)*

Introduction

The Associate in Applied Science degree in Emergency Medical Services (E.M.S.) is designed to prepare students for entry-level positions as paramedics while providing a solid basis for continued professional growth and career mobility. This program will provide students with the basic knowledge and skills necessary to function as an advanced emergency care provider, as well as give them additional education that will prepare them for advancement in EMS or in another related health field, such as nursing. Following successful completion of this program, students are eligible to take the national certification examination for paramedic.

Prerequisites

Students must have completed the Basic EMT program and be eligible for licensure, **or** have current valid State of Michigan Basic EMT license.

Course	Title	Credits
	Current Paramedic License	31
ALH-10101	Medical Terminology	2
ALH-11201	Medical Ethics & Law	1
BIO-10700	Essentials of Anatomy & Physiology	4
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3
MTH-12000	Intermediate Algebra or higher	3-4
POL-10100	Intro to American Government	3
PSY-10100	Introduction to Psychology	3
SPE-_____	Any speech course	3
	Any Humanities elective	2-4
	Elective credit, if needed	0-2

Notes:

- Conviction for some criminal offenses may render a candidate ineligible for taking the national certification examination.
- Must have a felony-free criminal record.
- Students are required to complete all required courses with a grade of "C" or better.
- A student must be at least 18 years of age.
- Must have a valid Michigan driver's license.
- Proof of Measles, Mumps and Rubella vaccination is required.
- Hepatitis vaccination and current TB test are required.

NURSING ASSISTANT COURSE

Credits: 6

Contact Hours: 8

Kirtland Community College offers a nursing assistant course each semester to prepare students to take the state examination to be certified as a Nursing Assistant. The course is offered each semester at both the Roscommon campus and the M-TEC [SM] at Gaylord campus. ***The student is responsible for paying the fee to take the certification exam.***

Prerequisites

ENG-08601 (Basic Reading Skills). COMPASS testing may be required to determine reading level.

Course	Title	Credits
ALH-10400	Nursing Assistant	6

Notes:

- Conviction for some criminal offenses may render a candidate ineligible for taking course and/or the certification examination. A criminal background check is required at the student's expense. Information regarding this is available in the Health Career's office.
- Students are required to complete the course with a grade of "C" or better.
- A student must be at least 18 years of age.
- There are abilities (with or without accommodation) that a student in this program must have. A list of these abilities can be obtained from the Health Sciences advisor. Based on history and physical examination findings, and these required abilities, which include a Tuberculin Skin Test within the last nine months, a recommendation from a health care provider is required prior to beginning the program. The appropriate forms are available in the Health Careers office.

FOR ADVISING IN THE ABOVE PROGRAMS PLEASE CALL ANNE ESSMAKER (989) 275-5000, EXT 372

CARDIAC SONOGRAPHY
Associate in Applied Science (DSON1)

Minimum Credits: 85
Contact Hours: 106-110

Introduction
A Cardiac Sonographer (echocardiographer) is a health care professional who uses high frequency sound waves to obtain diagnostic recordings and measurements from the ultrasound image of the heart; this data is used by a physician to diagnose and treat various health care problems. A thorough understanding of cardiac anatomy, physiology, hemodynamics, and pathophysiology is required. This program leads to an Associate in Applied Science – Cardiac Sonography degree, and prepares the students to be eligible for the Cardiovascular Credentialing Institute (CCI) exam to obtain their registry. There are special admission requirements to the sonography program; it is the student's responsibility to understand the requirements and to adhere to them as listed below.

Admission Requirements
To be admitted to the Cardiac Sonography program a separate application is required. Applications can be obtained from the M-TEC office and are accepted between February 1 and April 1 for the next Fall Semester (August) and between June 1 and August 1 for the next Winter Semester (January). Prerequisite courses must each be completed with a grade of C or better, except for Essentials of Anatomy & Physiology which requires a grade of B or better. (Anatomy & Physiology I & II may be completed with a grade of "C" or better if used in place of Essentials of Anatomy & Physiology.) Students eligible for admission will be ranked by the date in which Cardiac Sonography was declared to be their program of study (either on original application of by the change of program form). Preference for admission will be given to students who have completed all general education courses. Students will be admitted in cohort groups. Students who are admitted to the program must plan to take the courses in sequence and include summer semester. No waiting list is maintained for this program. Students must reapply each semester if not accepted into the program for the semester requested. The College reserves the right to extend the application period when warranted.

Prerequisite Courses—Required for eligibility to program:

Course	Title	Credits
ALH-10101	Medical Terminology	1-2
ALH-20203	Professional CPR (See advisor prior to taking)	.5
BIO-10700 Or BIO-23500 And BIO-23600	Essentials of Anatomy & Physiology Or Anatomy & Physiology I And Anatomy & Physiology II	4-8
CIS-10500	Introduction to Computers	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
MTH-12000	Intermediate Algebra or higher	3-4

General Education Courses—Recommended for eligibility to program; required for degree.

ENG-10403	English Composition II w/Computers	3
POL-10100	Introduction to American Government	3
PSY-10100	Introduction to Psychology	3
SPE-_____	Speech Elective	3
	Humanities Elective	2-4

Program Courses (program admission required; courses must be taken as outlined)

Course	Title	Credits
	Semester One:	
SON-10000	Into to Sonography Patient Care	2
SON-10500	Cardiac A & P	3
SON-11000	Ultrasound Physics	3
SON-11600	Cardiac Principles I	3
SON-11700	Cardiac Principles Lab I	4
	Semester Two:	
SON-12500	Echo I	3
SON-13100	Cardiac Principles II	3
SON-13200	Cardiac Principles Lab II	4
SON-13500	Clinical Practice I	2
	Semester Three:	
SON-15000	Echo II	3
SON-15600	Cardiac Principles III	3
SON-15700	Cardiac Principles Lab III	4
SON-16000	Clinical Practice II	2
	Semester Four:	
SON-22000	Externship	15.5

Continued on the following page

Important Notes:

- A minimum grade of "C+" is required in all Sonography courses.
- Students accepted to the Cardiac Sonography program will be required to submit to a complete criminal background fingerprinting review. A fee for this may be required. Felony convictions and certain misdemeanor convictions may prohibit admission to the sonography program due to the inability to place students with certain convictions in clinical facilities.
- There are abilities (with or without accommodation) that a student in this program must have. A list of these abilities can be obtained from the Health Sciences advisor. Based on history and physical examination findings, and these required abilities, a recommendation from a health care provider is required prior to beginning the program.
- Professional provider CPR certification must be obtained no earlier than three months prior to the start of the first semester of the Cardiac Sonography program.
- Prerequisite courses may be repeated one time only in order to obtain the required minimum grade.

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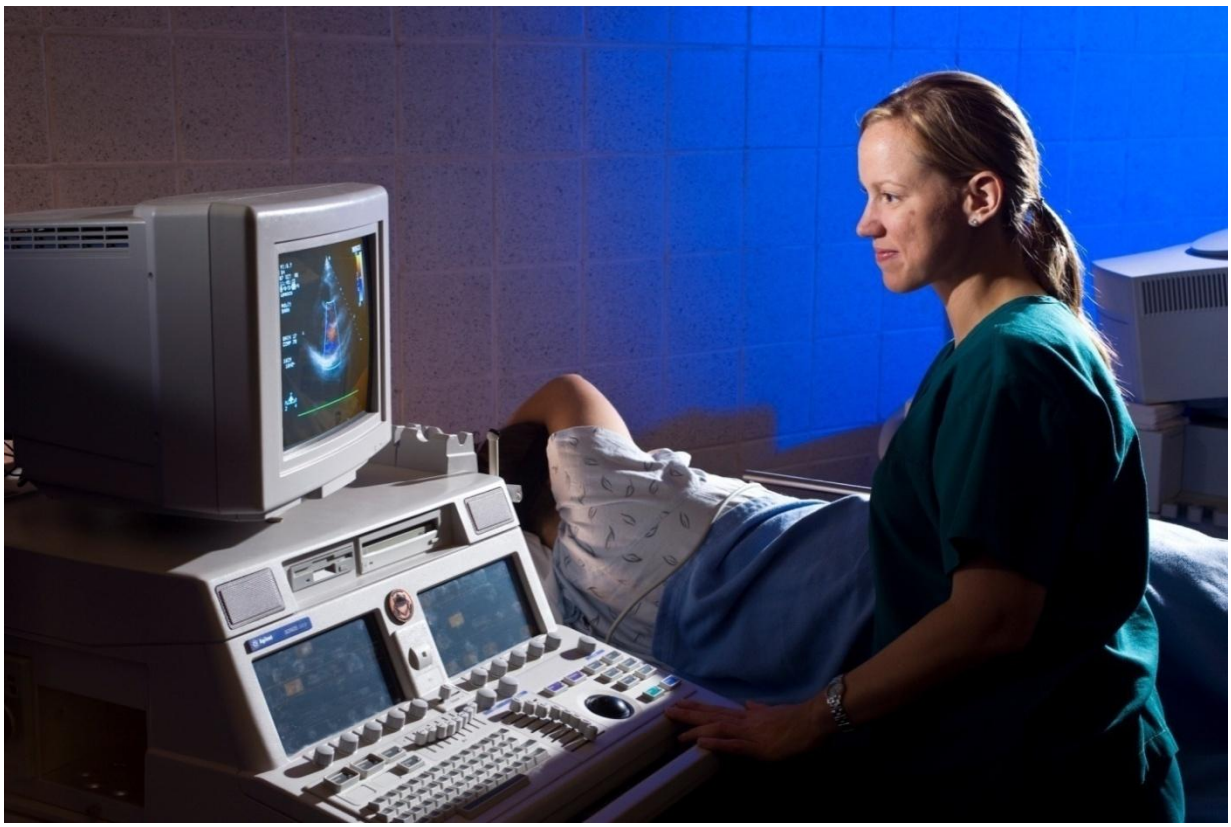
FOR ADVISING IN THE ABOVE PROGRAM , PLEASE CALL KATIE LORENCE (989) 705-3605.



PRACTICAL NURSING—LEVEL I — Minimum Credits: 37
Certificate of Completion (CLPN0) — **Contact Hours: 58.5-64.5**

Introduction: The Level I Nursing program at Kirtland is designed to prepare students for entry-level positions as practical nurses. Following successful completion of this program, graduates are eligible to take the licensure exam to practice as a Licensed Practical Nurse (LPN). The program is also designed to provide career mobility and a foundation for continued learning by serving as the first year of the associate degree nursing program. Students can attend school and complete the nursing program on a part-or full-time basis; however, it must be completed within two years after beginning nursing courses. Programs are offered at both the Central campus in Roscommon and the M-TEC[SM] campus in Gaylord. Each class of nursing students is considered a cohort (group) and courses/schedules are assigned. Students must consult with the Health Sciences advisor before making any schedule changes or changing from full-time to part-time.

Admission Requirements - Practical Nursing - Level I: Applicants must be granted regular admission to Kirtland and meet the following requirements to be considered for admission to the Practical Nursing program:

- Computer skills are essential to program success (Internet, email, word processing).
- Successfully complete all required prerequisite courses with a grade of "C" or better, except where noted.
- Recommend attending a Pre-Nursing Orientation. Schedules are posted in Health Sciences.
- Students requesting admission to the program must obtain a "Request for Admission to Nursing" form, available in the Health Sciences Department and online, and submit it to the Health Sciences office between December 1 and March 1 of the calendar year in which the student is requesting admission to the nursing program. Acceptance letters will be mailed by the first week of June for the full-time program which begins each fall semester and by the first week of October for the part-time program which begins each winter semester.

Note: *If applicants exceed the number of available seats in the program, priority will be given to students with required prerequisites and general education courses completed, then by date of KCC application where nursing is declared to be the program of study or by the date the program of study was changed to nursing, and then by residence within the local service area. Local service area consists of Kirtland's four-county district, those counties that have portions within Kirtland's district, and certain counties that are contiguous to Kirtland's district.*

Prerequisites: Students must successfully complete the following courses before being admitted to the nursing program:

Course	Title	Credits
ALH-10101	Medical Terminology	1-2
ALH-20203	Professional CPR (taken just prior to program OR substitute professional CPR taken within 3 months prior to start of clinical)	0-.5
BIO-10700 Or BIO-23500 And BIO-23600	Essentials of Anatomy & Physiology Or Anatomy & Physiology I And Anatomy & Physiology II *Note: Any A & P course must be completed with a grade of "B" or better.*	4-8
MTH-07300	Basic Algebra or competency	0-4
MTH-07400	Basic Algebra Lab, if required	0-1
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3

Program admission is required before students can enroll in the following courses:

	Semester I – Fall	
NUR-10300	Nursing Essentials	2
NUR-10502	Foundations of Nursing	3
NUR-10700	Mental Health Concepts	1
NUR-10803	Nursing Practice Lab	3
NUR-10804	Nursing Clinical I	2
NUR-10900	Pharmacology I	2
	Semester II - Winter	
NUR-12304	Nursing Clinical II	5
NUR-12503	Adult Medical-Surgical Nursing	4
NUR-12800	Maternal-Child Nursing Care	2
NUR-20900	Pharmacology II	2
	Semester III – Summer	
NUR-13302	Current Issues in Nursing	1
NUR-13402	Nursing Clinical III	2

Continued on the following page

Notes:

- Conviction for some criminal offenses may render a candidate ineligible for writing the examination (NCLEX-PN) for state licensure.
- Felony convictions and misdemeanor convictions involving abuse or neglect of vulnerable populations will prohibit admission to clinical agencies which is a requirement of the nursing program. A specific fingerprinting background check is required. This is at the student's expense. These forms are provided upon acceptance into the program.
- There are abilities (with or without accommodation) that a student in this program must have. A list of these abilities can be obtained from the health sciences advisor. Based on history and physical examination findings and these required abilities, a recommendation from a health care provider is required prior to beginning the program.
- Professional provider CPR certification must be obtained no earlier than three months prior to the start of the first clinical.
- The above information is applicable for students entering the nursing program in the 2010/2011 school year. Students entering the program in future years will be subject to the requirements outlined in the applicable catalog.
- A minimum grade of "C+" is required in all nursing program courses.
- Prerequisite courses may be repeated one time only to obtain the required grade.
- A minimum 2.5 grade point average is required for admission to the Level I nursing program.

ASSOCIATE DEGREE IN NURSING – LEVEL II

Minimum Credits: 69

Associate in Applied Science (DADN1)

Contact Hours: 67-73.5 *(Beyond Level I Program)*

Introduction: The Associate in Applied Science in Nursing program is designed to prepare students for entry-level positions as registered nurses and to provide continued learning and career mobility in nursing for licensed practical nurses. The Associate in Applied Science in Nursing Program is the Level I (practical nursing) plus the Level II program. Graduates of Level I must have earned a 3.0 or higher G.P.A. in prerequisite and Level I course work to be considered for admission into the Level II program. Students can attend school and complete the Level II program on a full- or part-time basis; however, once the program has begun, it must be completed within two years. Following successful completion of Level II, graduates are eligible to take the licensure exam to practice as a Registered Nurse (RN). Each class of nursing students is considered a cohort (group) and courses/schedules are assigned. Students must consult with the health careers advisor before making any schedule changes or changing from full-time to part-time. Graduates of the Level II program are qualified to enter the many B.S.N. completion programs available.

Admission Requirements Associate Degree Nursing - Level II: Applicants must be granted regular admission to Kirtland and meet the following requirements to be considered for admission to the Associate Degree Nursing program:

- Submit official transcripts demonstrating successful completion of an approved practical nursing program within the last three years. The applicant who graduated more than three years ago must demonstrate 12 months of clinical experience in an acute or skilled care setting within the last three years or successfully complete the Adult Medical-Surgical Nursing course (NUR-12503) and/or satisfactorily complete Nursing Skills Lab (NUR-106--) and/or Nursing Seminar (NUR-255--) within the last academic year.
- If a current LPN and a graduate of another nursing school, a minimum of one year's current work experience as an LPN is required.
- Computer skills are essential to program success (Internet, email, word processing).
- Students requesting admission to the program must obtain a "Request for Admission to Nursing" form, available in the Health Sciences office and online, and submit it to the Health Careers office between December 1 and March 1 of the calendar year in which the student is requesting admission to the nursing program. Acceptance letters will be mailed by the first week of June for the full-time program which begins each fall semester and by the first week of October for the part-time program which begins each winter semester.
- Successfully complete all prerequisite courses with a grade of C or better except where noted.

Note: *If applicants exceed the number of available seats in the program, priority will be given to students with required prerequisites and general education courses completed, then by date of KCC application where nursing is declared to be the program of study or by the date the program of study was changed to nursing, and then by residence within the local service area. Local service area consists of Kirtland's four-county district, those counties that have portions within Kirtland's district, and certain counties that are contiguous to Kirtland's district.*

Prerequisites: Students must successfully complete the following courses before being admitted to the Level II program.

Course	Title	Credits
	Successful completion (GPA 3.0 or higher) of Level I or other Practical Nursing program with experience	20*
ALH-20203	Professional CPR or Professional Provider CPR taken within 3 months of program	0-0.5
BIO-23500	Anatomy & Physiology I (B or better)	4
BIO-23600	Anatomy & Physiology II (B or better)	4
BIO-23700	Pathophysiology (C + or better)	3
ENG-10602	Technical Writing	3
MTH-12000	Intermediate Algebra or competency	0-4
POL-10100	Intro to American Government	3
PSY-10100	Intro to Psychology	3
	Any Speech course	3
	Any Humanities Elective	2-4
NUR-10900 And NUR-20900	Pharmacology I And Pharmacology II	0-4

*Students with current LPN licenses may be granted 20 credits toward this program upon presentation of their license.

Program Admission required before the following courses can be taken:

Course	Title	Credits
	Semester I – Fall	
NUR-22001	Nursing Assessment	3
NUR-23200	Family Centered Pediatrics	2
NUR-24201	Community Mental Health Nursing	2
NUR-24302	Community Mental Health Clinical	1.5
NUR-24600	Nursing Care of Women & Families	2
NUR-24900	Pediatric/Women's Health Clinical	1.5
	Semester II – Winter	
NUR-22201	Critical Thinking in Adult Care	5
NUR-22300	Adult Nursing Clinical	5
NUR-25201	Professional Practice	2

Continued on the following page

PART-TIME OPTION: Students also have the option of completing this program on a part-time basis in three semesters. Information about the semester sequence for part-time students is available from the health careers advisor. Program work must be completed within two years.

Notes:

- Conviction for some criminal offenses may render a candidate ineligible for writing the examination (NCLEX-RN) for state licensure.
- Felony convictions and misdemeanor convictions involving abuse or neglect of vulnerable populations will prohibit admission to clinical agencies which is a requirement of the nursing program. A federal fingerprinting procedure at student's expense is required as part of the final admission requirements for the program. These forms are provided upon acceptance into the program.
- There are abilities (with or without accommodation) that a student in this program must have. A list of these abilities can be obtained from the health careers advisor. Based on history and physical examination findings, and these required abilities, a recommendation from a health care provider is required prior to beginning the program. These forms are provided upon acceptance into the program.
- Professional provider CPR certification must be obtained no earlier than three months prior to the start of the first clinical semester.
- The above information is applicable for students entering the nursing program in the 2010/11 school year. Students entering the program in future years will be subject to the requirements outlined in the applicable college catalog.
- A minimum grade of "C+" is required in all nursing program courses.

FOR NURSING PROGRAM ADVISING, PLEASE CALL ANNE ESSMAKER (989) 275-5000, EXT 372

Radiography

The Radiography program is a collaborative program offered by an agreement between Kirtland Community College and Mid Michigan Community College. The program is designed to prepare graduates to function as members of the health team in hospitals, clinics, government and military installations, industry, and public health. In addition to classroom instruction and experience in the laboratory, the student will receive on-the-job practical education in radiology departments of local hospitals participating in the program.

The prerequisite and general education courses are taken at Kirtland Community College and can be completed in one year. The second year will be taken at Mid Michigan Community College. The third year will be a clinical internship at area hospitals. Program graduates are eligible to take the American Registry of Radiologic Technologists certification examination. Mid Michigan Community College confers the associate degree.

The collaborative program has many benefits for students at Kirtland including the following:

- Most general education and prerequisite courses can be taken at Kirtland. HUM-200 must be taken at Mid Michigan Community College.
- Mid Michigan has a limited number of reserved seats for qualified Kirtland students ready to be admitted into the program.
- Kirtland students who are accepted into the program and transfer to Mid Michigan for their radiography courses will pay in-district tuition at Mid Michigan.
- Kirtland students who are in the program and ready for their clinical internship in a hospital will be assigned to an in-district hospital.

FOR ADVISING IN THE ABOVE PROGRAM, PLEASE CONTACT DON DYER. dyerd@kirtland.edu

PHARMACY TECHNOLOGY
Certificate of Completion (CPHM0)

Minimum Credits: 25
Contact Hours: 38

Introduction: The Pharmacy Technology program at Kirtland is a 2-semester certificate program that prepares the student for entry-level pharmacy technician positions in hospitals, retail stores and other special areas of pharmacy practice where he/she will work under the supervision of a registered pharmacist. During the final semester of the program, the student will develop additional skills and knowledge necessary for the entry-level pharmacy technician by spending 288 hours in hospital, retail settings, and specialty areas in an internship under the direct supervision of a pharmacist. Upon completion of this program the student will be prepared to take the Pharmacy Technician Certification Board National Certification Exam.

Admission Requirements – Pharmacy Technology: Applicants must be granted regular admission to Kirtland and meet the following requirements to be considered for admission to the Pharmacy Technology program:

- COMPASS testing to determine competency in MTH-07300/07400 (Basic Algebra with lab), ENG-09000 (Fundamentals of English), ENG-09601 (College Reading Skills).
- Computer skills are essential to program success (Internet, email, word processing).
- Students requesting admission to the program must submit a "Request for Admission to Pharmacy Technology Program" form (available in Health Science) and turn it into the Health Sciences Office between December 1 and March 1 of the calendar year in which the student is requesting admission to the Pharmacy Technology program. Late applications will be accepted if seats are available after all on-time applicants have been evaluated. Acceptance letters will be mailed by the first week of June.

Note: *If applicants exceed the number of available seats in the program, priority will be given to students with required prerequisites completed, then by date of KCC application where Pharmacy Technology is declared to be the program of study or by the date the program of study was changed to Pharmacy Technology, and then by residence within the local service area. Local service area consists of Kirtland's four-county district, those counties that have portions within Kirtland's district, and certain counties that are contiguous to Kirtland's district.*

Prerequisites: Students must successfully complete or otherwise demonstrate competency in each of the following courses before being admitted to the surgical technology program.

Course	Title	Credits
MTH-07300/07400	Basic Algebra & Algebra Lab *or competency*	0-5
ENG-09000	Fundamentals of English *or competency*	0-3
ENG-09601	College Reading Skills *or competency*	0-3

Program admission is required before the following courses can be taken:

Semester I – Fall		
PHM-10000	Introduction to Pharmacy Technology	6
PHM-10100	Pharmacology and Pharmacy Calculation	3
BIO-10700	Essentials of Anatomy and Physiology (C+ or better)	4
Semester II - Winter		
PHM-10200	Issues in Pharmacy Technology	3
PHM-10300	Pharmacy Technology Clinical	6
SPE-11400	Intro. to Interpersonal/Public Communication	3

Notes

- Conviction for some criminal offenses and any drug or substance related offense will render a candidate ineligible for writing the certification examination.
- Felony convictions and misdemeanor convictions involving abuse or neglect of vulnerable populations or any drug or related substance offense will prohibit admission to clinical agencies (a requirement of the program).
- There are abilities (with or without accommodation) that a student in this program must have. A list of these abilities can be obtained from the health careers advisor. Based on history and physical examination findings, and these required abilities, a recommendation from a health care provider is required prior to beginning the program.
- The above information is applicable for students entering the program in the 2010/2011 school year. Students entering the program in future years will be subject to the requirements outlined in the applicable catalog.
- A minimum grade of "C+" is required in all Pharmacy Technology (PHM) program courses.
- Successfully complete all prerequisite and general education courses with a "C" or better grade except where noted.

FOR ADVISING IN THE ABOVE PROGRAM PLEASE CALL Anne Essmaker (989) 275-5000, EXT 281

SURGICAL TECHNOLOGY — Minimum Credits: 43
Certificate of Completion (CSRG0) — **Contact Hours: 74-79.5**

Introduction: The Surgical Technology program at Kirtland is designed to prepare students for entry-level positions as surgical technicians. Following successful completion of this program, graduates are eligible to take the national certification exam to practice as a Certified Surgical Technician. The program must be completed within one year after beginning the surgical technology courses. Programs are offered at the Kirtland campus in West Branch. Each class of Surgical Technology students is considered a cohort (group) and courses/schedules are assigned. Students must consult with the advisor for health sciences or the Associate Dean for Health Science for advising.

Admission Requirements – Surgical Technology: Applicants must be granted regular admission to Kirtland and meet the following requirements to be considered for admission to the Surgical Technology program:

- Computer skills are essential to program success (Internet, email, word processing).
- Successfully complete all required prerequisite courses with grade of "C" or better, except where noted.
- A minimum grade of "B" is required for BIO 23500 and BIO 23600 courses.
- Students requesting admission to the program must submit a "Request for Admission to Surgical Technology Program" form, available in Health Sciences, and turn it into the Health Sciences office between December 1 and March 1 of the calendar year in which the student is requesting admission to the surgical technology program. Acceptance letters will be mailed by the first week of June.

Note: *If applicants exceed the number of available seats in the program, priority will be given to students with required prerequisites completed, then by date of KCC application where Surgical Technology is declared to be the program of study or by the date the program of study was changed to Surgical Technology, then by residence within the local service area. Local service area consists of Kirtland's four-county district, those counties that have portions within Kirtland's district, and certain counties that are contiguous to Kirtland's district.*

Prerequisites: Students must successfully complete the following courses before being admitted to the surgical technology program.

Course	Title	Credits
ALH-10101	Medical Terminology	1-2
ALH-20203	Professional CPR (taken just prior to program or substitute professional CPR taken within 3 months prior to start of program)	0-0.5
BIO-23500	Anatomy & Physiology I	4
BIO-23600	Anatomy & Physiology II	4
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
MTH 12000	Intermediate Algebra *or competency*	0-4

Program admission is required before the following courses can be taken:

Semester I – Fall		
SUR- 10000	Fundamental of Surgical Technology	3
SUR- 10100	Surgical Asepsis	2
SUR- 10200	The Surgical Patient	2
SUR- 10300	Surgical Pharmacology	2
SUR- 10400	Basic Operative Procedures	2
SUR- 10500	Surgical Techniques l	2
SUR- 10600	Surgical Techniques ll	3
Semester II - Winter		
SUR- 20000	Advanced Surgical Procedures	3
SUR- 20100	Surgical Techniques lll	5
SUR- 20200	Surgical Techniques lV	5
SUR- 20300	Surgical Professional Practice	2

Notes

- Conviction for some criminal offenses may render a candidate ineligible for writing the examination.
- Felony convictions and misdemeanor convictions involving abuse or neglect of vulnerable populations will prohibit admission to clinical agencies which is a requirement of the program.
- There are abilities (with or without accommodation) that a student in this program must have. A list of these abilities can be obtained from the health sciences advisor. Based on history and physical examination findings, and these required abilities, a recommendation from a health care provider is required prior to beginning the program. These forms are provided upon acceptance into the program.
- Professional provider CPR certification must be obtained no earlier than three months prior to the start of the first program semester.
- The above information is applicable for students entering the program in the 2010/2011 school year. Students entering the program in future years will be subject to the requirements outlined in the applicable catalog.
- A minimum grade of "C+" is required in all Surgical Technology (SUR) program courses.

FOR ADVISING IN THE ABOVE PROGRAM PLEASE CALL MaryAnn Frick (989) 275-5000, EXT 281

SURGICAL TECHNOLOGY
Associate in Applied Science (DSRG0)

Minimum Credits: 60
Contact Hours: 91-95.5

Introduction: The Surgical Technology program at Kirtland is designed to prepare students for entry-level positions as surgical technicians. Following successful completion of this program, graduates are eligible to take the national certification exam to practice as a Certified Surgical Technician. The program must be completed within one year after beginning the Surgical Technology courses. The program is offered at the Kirtland campus in West Branch. Each class of Surgical Technology students is considered a cohort (group) and courses/schedules are assigned. Students must consult with the advisor for health sciences or Associate Dean for Health Science for advising

Admission Requirements – Surgical Technology: Applicants must be granted regular admission to Kirtland and meet the following requirements to be considered for admission to the Surgical Technology program:

- Computer skills are essential to program success (Internet, email, word processing).
- Successfully complete all required prerequisite courses with grade of "C" or better, except where noted.
- A minimum grade of "B" is required for BIO 23500 and BIO 23600 courses.
- Students requesting admission to the program must submit a "Request for Admission to the Surgical Technology Program" form (available in the Health Sciences office) and turn it into the Health Sciences office between December 1 and March 1 of the calendar year in which the student is requesting admission to the surgical technician program. Acceptance letters will be mailed by the first week of June.

Note: *If applicants exceed the number of available seats in the program, priority will be given to students with required prerequisites and general education courses completed, then by date of KCC application where Surgical Technology is declared to be the program of study or by the date the program of study was changed to Surgical Technology, then by residence within the local service area. Local service area consists of Kirtland's four-county district, those counties that have portions within Kirtland's district, and certain counties that are contiguous to Kirtland's district.*

Prerequisites: Students must successfully complete the following courses before being admitted to the Surgical Technology program.

Course	Title	Credits
ALH-10101	Medical Terminology	1-2
ALH-20203	Professional CPR (taken just prior to program or substitute professional CPR taken within 3 months prior to start of program)	0-.5
BIO-23500	Anatomy & Physiology I	4
BIO-23600	Anatomy & Physiology II	4
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
MTH 12000	Intermediate Algebra *or competency*	0-4

The following courses are also required, and may be obtained before or after the program courses:

ENG-10403	English Composition II w/Computers	3
POL-10100	Introduction to American Government	3
PSY-10100	Introduction to Psychology	3
	Any Humanities Elective	2-4
	Any Speech course	3
	Elective, if needed	0-2

Program admission is required before the following courses can be taken:

	Semester I – Fall	
SUR- 10000	Fundamental of Surgical Technology	3
SUR- 10100	Surgical Asepsis	2
SUR- 10200	The Surgical Patient	2
SUR- 10300	Surgical Pharmacology	2
SUR- 10400	Basic Operative Procedures	2
SUR- 10500	Surgical Techniques l	2
SUR- 10600	Surgical Techniques ll	3
	Semester II - Winter	
SUR- 20000	Advanced Surgical Procedures	3
SUR- 20100	Surgical Techniques lll	5
SUR- 20200	Surgical Techniques lV	5
SUR- 20300	Surgical Professional Practice	2

Notes

- Conviction for some criminal offenses may render a candidate ineligible for writing the national certification examination.
- Felony convictions and misdemeanor convictions involving abuse or neglect of vulnerable populations will prohibit admission to clinical agencies which is a requirement of the program.
- There are abilities (with or without accommodation) that a student in this program must have. A list of these abilities can be obtained from the health sciences advisor. Based on history and physical examination findings, and these required abilities, a recommendation from a health care provider is required prior to beginning the program.
- Professional provider CPR certification must be obtained no earlier than three months prior to the start of the first clinical semester.
- The above information is applicable for students entering the program in the 2010/2011 school year. Students entering the program in future years will be subject to the requirements outlined in the applicable catalog.
- A minimum grade of "C+" is required in all Surgical Technology (SUR) program courses.
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FOR ADVISING IN THE ABOVE PROGRAM PLEASE CALL Anne Essmaker (989) 275-5000, ext. 372 or MaryAnn Frick (989) 275-5000, ext. 281

INDUSTRIAL TECHNOLOGIES

Please check the program location for the following programs. Some are available on the Central Campus, and others are available on the M-TEC Campus only.

Certificates

- *Industrial Maintenance (M-TEC Campus)*
- *Outdoor Power Engines (M-TEC Campus)*
- *Welding & Fabricating (Central & M-TEC)*

Associate in Applied Science

- *Industrial Maintenance (M-TEC Campus)*
- *Outdoor Power Engines (M-TEC Campus)*
- *Welding & Fabricating (Central & M-TEC)*

Partnership Programs

- *Davenport University*
- *Ferris State University*
- *Franklin University*

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

Foundation

Kirtland Community College recognizes the importance of students possessing basic academic skills in English, reading, and mathematics in order to successfully complete college-level courses. Therefore, all entry-level students are required to demonstrate their proficiency in basic academic skills, as these courses are the foundation for success in all programs. The student's advisor will indicate which of the following courses need to be taken based on ACT scores or COMPASS placement testing results. It is highly recommended that students take these courses during the first semester in order to prepare for the road ahead, as well as possibly satisfying prerequisites needed for more advanced courses. Specific courses needed may be tracked below. *Students must plan additional time to complete their program requirements if placement results demonstrate the need to begin with preparatory courses (courses numbered less than 10000).*

☐ ENG-10000 Writing Lab (if required) ☐ Mathematics: _____
☐ English: _____ ☐ Reading: _____

For more information, please contact the Industrial Technologies Department.	
Don Dyer (Central Campus-Welding)	989-275-5000, ext. 231
Kerry Harwood (M-TEC Campus-Outdoor Power Engines)	989-705-3695
Daron Shimel (M-TEC Campus—Welding)	989-705-3693
Alan Mabarak (M-TEC Campus-Industrial Maintenance)	989-705-3694

INDUSTRIAL MAINTENANCE / M-TEC Campus

Minimum Credits: 30

Certificate of Completion (CIND2)

Contact Hours: 45.1

Prerequisites: WorkKeys[R] is used to assess the core competency levels of reading, mathematics, locating information, and writing. Students are required to take WorkKeys[R] assessments as they proceed to completion of requirements for a certificate and/or degree.

Core Courses (3.7 credits, 92.5 classroom hours):

Course	Title	Credits	Classroom Hours
COR-10001	Basic Safety	.60	15.0
COR-10002	Introduction to Construction Math	.60	15.0
COR-10003	Introduction to Hand Tools	.40	10.0
COR-10004	Introduction to Power Tools	.20	5.0
COR-10005	Introduction to Blueprints	.30	7.5
COR-10006	Basic Rigging	.80	20.0
COR-10007	Basic Communications Skills	.20	5.0
COR-10008	Basic Employability Skills	.60	15.0
Industrial Maintenance, Level 1 (4.9 credits, 122.5 classroom hours):			
IND-11000	Orientation to the Trade	.10	2.5
IND-11001	Tools of the Trade	.20	5.0
IND-11002	Fasteners and Anchors	.20	5.0
IND-11003	Oxyfuel Cutting	.70	17.5
IND-11004	Gaskets and Packing	.40	10.0
IND-11005	Craft-Related Mathematics	.60	15.0
IND-11006	Construction Drawings	.50	12.5
IND-11007	Pumps and Drivers	.20	5.0
IND-11008	Introduction to Valves	.20	5.0
IND-11009	Introduction to Test Instruments	.30	7.5
IND-11010	Material Handling and Hand Rigging	.60	15.0
IND-11011	Mobile and Support Equipment	.40	10.0
IND-11012	Lubrication	.50	12.5
Industrial Maintenance, Level 2 (6.4 credits, 160 classroom hours):			
IND-12000	Basic Layout	.80	20.0
IND-12001	Introduction to Piping Components	.20	5.0
IND-12002	Copper and Plastic Piping Practices	.20	5.0
IND-12003	Introduction to Ferrous Metal Piping Practices	.20	5.0
IND-12004	Identifying, Installing and Maintaining Valves	.40	10.0
IND-12005	Hydrostatic and Pneumatic Testing	.40	10.0
IND-12006	Introduction to Bearings	.60	15.0
IND-12007	Low Pressure Steam Systems	.40	10.0
IND-12008	High Pressure Steam Systems and Auxiliaries	.80	20.0
IND-12009	Distillation Towers and Vessels	.80	20.0
IND-12010	Heaters, Furnaces, Heat Exchangers, Cooling Towers	1.2	30.0
IND-12011	Introduction to Tube Work	0.4	10.0
Industrial Maintenance, Level 3 (7 credits, 155 classroom hours):			
IND-23000	Advanced Trade Math	1.2	30.0
IND-23001	Precision Measuring Tools	.80	20.0
IND-23002	Installing Bearings	.80	20.0
IND-23003	Installing Couplings	.60	15.0
IND-23004	Setting Baseplates and Prealignment	1.2	30.0
IND-23005	Conventional Alignment	1.2	30.0
IND-23006	Installing Belt and Chain Drives	.40	10.0
IND-23007	Installing Mechanical Seals	.80	20.0
Industrial Maintenance, Level 4 (6.8 credits, 170 classroom hours):			
IND-24000	Preventive and Predictive Maintenance	.40	10.0
IND-24001	Advanced Blueprint Reading	1.0	25.0
IND-24002	Compressors and Pneumatic Systems	1.4	35.0
IND-24003	Reverse Alignment	1.2	30.0
IND-24004	Laser Alignment	1.0	25.0
IND-24005	Introduction to Supervisory Skills	.60	15.0
IND-24006	Troubleshooting and Repairing Pumps	.40	10.0
IND-24007	Troubleshooting and Repairing Gearboxes	.80	20.0

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Core Capstone & Electives (1.2 credit, 21 classroom hours):

CAP-10000	Core Capstone	1.00	16.0
	Technical electives approved by advisor (Choose from: CAP-20001 through 20004, CPT, ELT, IND, MPT, PLB, and/or WLD)	.20	5.0

After completing the certificate, students may continue in Associate in Applied Science: Industrial Maintenance (below):

INDUSTRIAL MAINTENANCE / M-TEC Campus

Minimum Credits: 60

Associate in Applied Science (DIND2)

Contact Hours: 70-84

Course	Title	Credits	Classroom Hours
	Industrial Maintenance Certificate (listed above)	30	768.5
EDT-11000	Detailing with AutoCAD	3	64
EDT-13000	Fundamentals of MasterCAM	3	48

Communications (9-10 credits):

ENG-10000	Writing Lab (if required)	0-1	32
ENG-10303	English Composition I w/Computers	3	48
ENG-10403 Or ENG-10602	English Composition II w/Computers Or Technical Writing	3	48
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal & Public Comm	3	48

Humanities/Social Science (8-11 credits):

POL-10100	Introduction to American Government	3	48
	Humanities elective	2-4	32-64
	Any Social Science Elective	3-4	48-64

Math/Natural Science (6-9 credits):

MTH-12000	Intermediate Algebra or higher (excluding MTH-20500 or MTH-20600)	3-4	48-64
	Any Science Course with lab	3-5	48-80

Summary—Industrial Maintenance--Associate in Applied Science

	Credits	Classroom Hours
IND Certificate of Completion	**30**	**721**
Engineering Design Technologies	**7**	**128**
General Education	**23**	**368-496**
Total	**60**	**1,117-1,345**

OUTDOOR POWER ENGINES / M-TEC Campus

Minimum Credits: 30

Certificate of Completion (CODP0)

Contact Hours: 39-41

Introduction

The Outdoor Power Engines program prepares students for employment as repair technicians for motorcycles, watercraft, snowmobiles, ATVs, and other two and four cycle engines. The program provides competency-based learning experiences including theory and hands-on labs as well as internship opportunities. Students concentrate on the overall functions of the engines and diagnose or troubleshoot issues for repair. Students and graduate of this program have extensive opportunities for employment or transfer for further study with the nationally accredited and recognized educational leader in the field--Universal Technical Institute (UTI). After completing the Certificate: Outdoor Power Engines requirements, students may continue in Associate in Applied Science: Outdoor Power Engines.

Prerequisites: WorkKeys^{R} is used to assess the core competency levels of reading, mathematics, locating information, and writing. Students are required to take WorkKeys^{R} assessments as they proceed to completion of requirements for a certificate and/or degree.

Course	Title	Credits	Classroom Hours
CAP-10000	Core Capstone	1	16
CAP-20003	Internship/Service Learning	3	72
OPE-10001	Two & Four Cycle Engines Level 1	3	64
OPE-11032	Two & Four Cycle Engines Level 2	3	64
OPE-14000 Or AUT-16401	Small Engine Electricity Or Basic Electricity	3	64
OPE-20100	Outdoor Power Engines Capstone	3	64
OPE-20310 Or OPE-20510	Power Sports Equipment I Or Watercraft I	3	64

Metal Machining Level 1 (4.18 credits, 100 classroom hours):

MPT-10272	Machine Tool Safety	0.17	4.0
MPT-10273	Identifying Surface Finishes	0.08	2.0
MPT-10274	Shop Math-Speeds & Feeds	0.21	5.0
MPT-10275	Sharpening Drill Bits	0.25	6.0
MPT-10276	Drilling on a Press	0.17	4.0
MPT-10277	Power Tap on the Drill Press	0.25	6.0
MPT-10278	Drill Press Project	0.58	14.0
MPT-10279	Band Saw Blade Welding	0.25	6.0
MPT-10280	Vertical Band Saw Project	0.25	6.0
MPT-10281	Maintaining the Lathe	0.17	4.0
MPT-10282	Grinding Lathe Tools	0.25	6.0
MPT-10283	Facing on the Lathe	0.21	5.0
MPT-10284	Aligning Lathe Centers	0.17	4.0
MPT-10285	Cutting External Threads	0.50	12.0
MPT-10286	Dial In Vise/Tram in Head	0.21	5.0
MPT-10287	Fly Cutter & End Mill/Square Block	0.21	5.0
MPT-10288	Digital Read/Drill, Tap, & Ream	0.25	6.0

Welding Level I (4 credits, 96 classroom hours):

WLD-10120	Welding Safety	0.13	3.0
WLD-10121	AWS Joints/Positions/Welds/Symbols	0.13	3.0
WLD-10122	OAW Terms & Equipment Setup	0.17	4.0
WLD-10123	OAW Stringer Beads & Joints 1G-1F	0.36	9.0
WLD-10124	BW Stringer Beads & Joints	0.29	7.5
WLD-10125	Cutting OA/Plasma Cutting/Carbon Arc	0.45	11.0
WLD-10126	Identifying Good Welds per AWS	0.13	3.0
WLD-10127	SMAW Terms/Identify Electrodes	0.17	4.0
WLD-10128	SMAW Set-up & Weld Stringer Beads	0.42	10.0
WLD-10129	SMAW Welding Joints/Flat Pos/1G-1F	0.33	9.6
WLD-10130	GMAW Set-up & Weld Stringer Beads	0.42	10.0
WLD-10131	GMAW Welding Joints/Flat Pos/1G-1F	0.29	7.5
WLD-10132	FCAW Set-up & Weld Stringer Beads	0.42	10.0
WLD-10133	GCAW Welding Joints/Flat Pos/1G-1F	0.29	7.0

and electives from the following lists for a total of 30 program credits (2.92 credits, 48-68 classroom hours):

Engineering Design Technology	Manufacturing Processes Technology	Welding
EDT-XXX EDT electives	MPT-XXX MPT electives	WLD-XXX Welding electives

OUTDOOR POWER ENGINES / M-TEC Campus

Minimum Credits: 60

Associate in Applied Science (DODP0)

Contact Hours: 68-80

After completing the Certificate: Outdoor Power Engines requirements, students may continue in Associate in Applied Science: Outdoor Power Engines, as listed below.

Course	Title	Credits	Classroom Hours
	Outdoor Power Engines Certificate	30	
EDT-11000	Detailing with AutoCAD	3	64

Communications (9-10 credits):

ENG-10000	Writing Lab (if required)	0-1	32
ENG-10303	English Composition I w/Computers	3	48
ENG-10403 Or ENG-10602	English Composition II w/Computers Or Technical Writing	3	48
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal & Public Comm	3	48

Humanities/Social Science (8-11 credits):

POL-10100	Introduction to American Government	3	
	Humanities elective	2-4	32-64
	Any Social Science Elective	3-4	48-64

Math/Natural Science (6-9 credits):

MTH-12000	Intermediate Algebra or higher	3-4	48-64
	Any Science Course with lab	3-5	48-80

Technical Elective, if needed (0-1):

WELDING & FABRICATING /Central & M-TEC Campus **Minimum Credits: 31**
Certificate of Completion (CWAF1) **Contact Hours: 45-46**

Introduction
Kirtland's program in Welding & Fabricating is designed to provide instruction in the development of techniques and understanding of quality weldments. The program includes practice in shielded metal arc welding, oxy-acetylene welding and cutting, gas tungsten arc welding, flux cored arc welding, and gas metal arc welding processes. Students will have an understanding of the metallurgical aspects of the weld structure, welding equipment construction, welding codes, planning and estimating and applying current industrial techniques. This program leads to an Associate in Applied Science degree which has a minimum of 62 credit hours. Upon successful completion, students may be eligible to transfer for a bachelor's degree. Welding students should take into consideration that the program must be customized for transfer in order to fulfill the requirements of a four-year institution.

Electrical (2.8-3.0 credits, 64-70 classroom hours:

Course	Title	Credits	Classroom Hours
AUT-16401	Basic Electricity	3	64
Or OPE- 14000	Or Small Engine Electricity	3	64
Or ELT-10103	Or Intro to Electrical Circuits	.30	7.5
And ELT-10104	And Electrical Theory	.30	7.5
And ELT-10110	And Basic ELT Construction Drawings	.20	7.5
And ELT-10112	And Electrical Test Equipment	.30	5.0
And ELT-10202	And Alternating Current	.60	17.5
And ELT-10210	And Grounding & Bonding	.50	15.0
And ELT-20407	And Basic Electronic Theory	.80	10.0

Engineering Design Technology (3 credits, 64 classroom hours):

EDT-11000	Detailing with AutoCAD	3	64

Metal Machining Level 1 (4.18 credits, 100 classroom hours):

MPT-10272	Machine Tool Safety	0.17	4.0
MPT-10273	Identifying Surface Finishes	0.08	2.0
MPT-10274	Shop Math-Speeds & Feeds	0.21	5.0
MPT-10275	Sharpening Drill Bits	0.25	6.0
MPT-10276	Drilling on a Press	0.17	4.0
MPT-10277	Power Tap on the Drill Press	0.25	6.0
MPT-10278	Drill Press Project	0.58	14.0
MPT-10279	Band Saw Blade Welding	0.25	6.0
MPT-10280	Vertical Band Saw Project	0.25	6.0
MPT-10281	Maintaining the Lathe	0.17	4.0
MPT-10282	Grinding Lathe Tools	0.25	6.0
MPT-10283	Facing on the Lathe	0.21	5.0
MPT-10284	Aligning Lathe Centers	0.17	4.0
MPT-10285	Cutting External Threads	0.50	12.0
MPT-10286	Dial In Vise/Tram in Head	0.21	5.0
MPT-10287	Fly Cutter & End Mill/Square Block	0.21	5.0
MPT-10288	Digital Read/Drill, Tap, & Ream	0.25	6.0

Metallurgy (2.22 credits, 52 classroom hours):

MPT-20319	Property of Metals/Physical Metallurgy	0.13	3.0
MPT-20320	Constitution of Alloys	0.17	4.0
MPT-20321	Carbon and Alloy Steels	0.13	3.0
MPT-20322	Heat and Surface Treat for Steel	0.13	3.0
MPT-20323	Cast Irons	0.13	3.0
MPT-20324	Light Metals and Alloys	0.13	3.0
MPT-20325	Lead, Tin, and Zinc	0.13	3.0
MPT-20326	Introduction to Metallurgy	0.46	11.0
MPT-20327	Examining and Identifying Metals	0.13	3.0
MPT-20328	Fundamentals of Welding & Brazing/Casting	0.13	3.0
MPT-20329	Fundamentals of Welding Stainless Steel	0.13	3.0
MPT-20330	Testing Metals	0.42	10.0

Continued on following page

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Welding Level I (4 credits, 96 classroom hours):

WLD-10120	Welding Safety	0.13	3.0
WLD-10121	AWS Joints/Positions/Welds/Symbols	0.13	3.0
WLD-10122	OAW Terms & Equipment Setup	0.17	4.0
WLD-10123	OAW Stringer Beads & Joints 1G-1F	0.36	9.0
WLD-10124	BW Stringer Beads & Joints	0.29	7.5
WLD-10125	Cutting OA/Plasma Cutting/Carbon Arc	0.45	11.0
WLD-10126	Identifying Good Welds per AWS	0.13	3.0
WLD-10127	SMAW Terms/Identify Electrodes	0.17	4.0
WLD-10128	SMAW Set-up & Weld Stringer Beads	0.42	10.0
WLD-10129	SMAW Welding Joints/Flat Pos/1G-1F	0.33	9.6
WLD-10130	GMAW Set-up & Weld Stringer Beads	0.42	10.0
WLD-10131	GMAW Welding Joints/Flat Pos/1G-1F	0.29	7.5
WLD-10132	FCAW Set-up & Weld Stringer Beads	0.42	10.0
WLD-10133	GCAW Welding Joints/Flat Pos/1G-1F	0.29	7.0

Welding Level 2 (4 credits, 96 classroom hours):

WLD-10240	GMAW Welding Joints/Hor Pos/2G-2F	0.17	4.0
WLD-10241	FCAW Welding Joints/Hor Pos/2G-2F	0.17	4.0
WLD-10242	GMAW Welding Joints/Ver Pos/3G-3F	0.17	4.0
WLD-10243	FCAW Welding Joints/Ver Pos/3G-3F	0.17	4.0
WLD-10244	GMAW Welding Joints/Ovhd Pos/4G-4F	0.21	5.0
WLD-10245	FCAW Welding Joints/Ovhd Pos/4G-4F	0.21	5.0
WLD-10246	GMAW Pulse Arc/Flat Pos/1G-1F	0.17	4.0
WLD-10247	GMAW Metal Core Arc Wld/Flat/1G-1F	0.17	4.0
WLD-10248	GMAW Welding Joints Aluminum/All Ps	0.33	8.0
WLD-10249	Welding Blueprint Reading	0.17	4.0
WLD-10250	Fab Project Using GMAW or FCAW	0.5	12.0
WLD-10251	SMAW Multi-Pass Stringer/Flat/1F	0.42	10.0
WLD-10252	SMAW Multi-Pass Weave/Flat/1F	0.42	10.0
WLD-10253	SMAW Welding Joints/Hor Pos/2G-2F	0.36	9.0
WLD-10254	SMAW Welding Joints/Ver Pos/3G-3F	0.36	9.0

Welding Level 3 (4 credits, 96 classroom hours):

WLD-10370	SMAW Welding Joints/Ovhd Pos/4G-4F	0.5	12.0
WLD-10371	Fabricate Project Using SMAW	0.5	12.0
WLD-10372	Welding Metallurgy	0.9	22.0
WLD-10373	GTAW Setup & Weld Stringer Beads	0.42	10.0
WLD-10374	GTAW Weld Joints/Steel/Flat/1G-1F	0.42	10.0
WLD-10375	GTAW Weld Jts/StainSteel/Flat/1G-1F	0.42	10.0
WLD-10376	GTAW Weld Joints/Alum/Flat/1G-1F	0.42	10.0
WLD-10377	GTAW Weld Joints/Steel/Hor/2G-2F	0.42	10.0

Welding Level 4 (4 credits, 96 classroom hours):

WLD-20450	GTAW Weld Jts/Stain Steel/Hor/2G-2F	0.5	12.0
WLD-20451	GTAW Weld Joints/Alum/Hor/2G-2F	0.5	12.0
WLD-20452	GTAW Weld Joints/Steel/Ver/3G-3F	0.5	12.0
WLD-20453	GTAW Weld Jts/Stain Steel/Ver/3G-3F	0.5	12.0
WLD-20454	GTAW Weld Joints/Alum/Ver/3G-3F	0.5	12.0
WLD-20455	GTAW Weld Joints/Steel/Ovhd/4G-4F	0.5	12.0
WLD-20456	GTAW Weld Jts/StainSteel/Ovhd/4G-4F	0.5	12.0
WLD-20457	GTAW Weld Joints/Alum/Ovhd/4G-4F	0.5	12.0

Core Capstone (1 credit, 16 classroom hours):

CAP-10000	Core Capstone	1	16

Technical Electives from the following lists for a total of 31 program credits (1.2 credits, 29 classroom hours)

Engineering Design Technology	Manufacturing Processes Technology	Welding
EDT-xxxxx EDT Electives	**MPT-xxxxx MPT Electives**	**WLD-xxxxx Welding electives**

WELDING & FABRICATING TECHNOLOGY/Central & M-TEC Campus

Associate in Applied Science (DWAF1) **Minimum Credits: 62**

Contact Hours: 83-91

After completing the Certificate: Welding & Fabricating requirements, students may continue for the Associate in Applied Science: Welding & Fabricating Technology, as listed below.

Course	Title	Credits	Classroom Hours
	Welding & Fabricating Certificate	31	680-780.1

Welding Level 5 (4 credits, 96 classroom hours):

WLD-20510	Intro to Pipe Welding	.21	5.0
WLD-20511	Pipe 2G Fixed Position	.67	16
WLD-20512	Pipe Welding 5G Fixed Pos/Vert Up	1.04	25.0
WLD-20513	Pipe Welding 5G Fixed Pos/Vert Down	1.04	25.0
WLD-20514	Pipe Welding 6G Fixed Position	1.04	25.0

Welding Level 6 (4 credits, 96 classroom hours):

WLD-20505	6 Welder Qual & Projects	4	96

Communications (9-10 credits):

ENG-10000	Writing Lab (if required)	0-1	32
ENG-10303	English Composition I w/Computers	3	48
ENG-10403 Or ENG-10602	English Composition II w/Computers Or Technical Writing	3	48
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal & Public Comm	3	48

Humanities/Social Science (8-11 credits):

POL-10100	Introduction to American Government	3	
	Humanities elective	2-4	32-64
	Any Social Science Elective	3-4	48-64

Math/Natural Science (6-9 credits):

MTH-12000	Intermediate Algebra or higher	3-4	48-64
	Any Science Course with lab	3-5	48-80

OFFICE INFORMATION SYSTEMS

Certificates

- *Medical Billing and Coding*
- *Medical Clerk*
- *Medical Transcription*
- *Office Assistant*

Associate in Applied Science

- *Administrative Assistant*
- *Legal Secretary*
- *Medical Secretary*
- *Medical Transcription*

Partnership Programs

- *Davenport University*
- *Franklin University*
- *Northwood University*

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

Foundation

Kirtland Community College recognizes the importance of students possessing basic academic skills in English, reading, and mathematics in order to successfully complete college-level courses. Therefore, all entry-level students are required to demonstrate their proficiency in basic academic skills, as these courses are the foundation for success in all programs. The student's advisor will indicate which of the following courses need to be taken based on ACT scores or COMPASS placement testing results. It is highly recommended that students take these courses during the first semester in order to prepare for the road ahead, as well as possibly satisfying prerequisites needed for more advanced courses. Specific courses needed may be tracked below. *Students must plan additional time to complete their program requirements if placement results demonstrate the need to begin with preparatory courses (courses numbered less than 10000).*

☐ ENG-10000 Writing Lab (if required)
☐ English: _____
☐ Mathematics: _____
☐ Reading: _____

FOR ADVISING IN THESE PROGRAMS, PLEASE CALL LISA LASHLEY (989) 275-5000, EXT 345.

MEDICAL BILLING AND CODING

Minimum Credits: 35

Certificate of Completion (CMBC0)

Contact Hours: 35-37

Introduction

The Medical Billing and Coding program provides the career education necessary to be proficient in completing insurance claims. Students learn billing and collection techniques and become proficient in assigning ICD-9-CM and CPT codes.

A program GPA of 2.3 is required for graduation. Courses consisting of modules (A, B, C) require an average grade of C+, with a minimum grade in any single module of at least a C (2.0). Additionally, all 3-credit OIS courses require a minimum grade of C+ (2.3).

Course	Title	Credits
ALH-10101	Medical Terminology	2
ALH-10801	Pathology	3
ALH-11201	Medical Ethics & Law	1
BIO-10700	Essentials of Anatomy & Physiology	4
CIS-10500	Introduction to Computers	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
OIS-10401/02/03 Or OIS-18201/02/03	Keyboarding I – A/B/C Or Word Processing I – A/B/C	3
OIS-10600	Intro to Health Information Systems	3
OIS-11300	Medical Coding I	3
OIS-11500	Medical Billing and Coding	3
OIS-21300	Medical Coding II	3
OIS-24109	Internship – Medical Billing/Coding	4

Suggested sequence of courses:

Semester I
ALH-10101—Medical Terminology
ALH-11201—Medical Ethics & Law
BIO-10700—Essentials of Anatomy & Physiology
CIS-10500—Intro to Computers
ENG-10000—Writing Lab
ENG-10303—English Composition I

Semester II
ALH-10801—Pathology
OIS-10401/02/03—Keyboarding I—A/B/C or OIS-18201/02/03—Word Processing I-A/B/C
OIS-10600—Intro to Health Information Systems
OIS-11300—Medical Coding I
OIS-11500—Medical Billing & Coding

Semester III
OIS-21300—Medical Coding II
OIS-24109—Internship-Medical Billing & Coding

For assistance with course selection, sequencing and arranging your schedule, please consult with your advisor.

MEDICAL CLERK

Minimum Credits: 36

Certificate of Completion (CMOA1)

Contact Hours: 36-39

Introduction

The Medical Clerk program is designed to train students for employment as a medical office clerk. The program emphasizes development of proficiency in administrative medical office skills including preparation of correspondence, transcription of medical dictation, billing, insurance, receptionist duties, ethics and law, and medical office procedures. Students may transfer into the Associate in Applied Science: Medical Secretary program at any time during or after completion of the certificate program.

A program GPA of 2.3 is required for graduation. Courses consisting of modules (A, B, C) require an average grade of C+, with a minimum grade in any single module of at least a C (2.0). Additionally, all 3-credit OIS courses require a minimum grade of C+ (2.3).

Course	Title	Credits
ALH-10101	Medical Terminology	2
ALH-11201	Medical Ethics & Law	1
CIS-10500	Introduction to Computers	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
OIS-10500	Business Correspondence	3
OIS-10600	Intro to Health Information Systems	3
OIS-10701/02/03	Medical Office Transcription-A/B/C	3
OIS-11201 Or ACC-10600 Or ACC-12500	Business Calculations Or Fundamentals of Accounting Or Computer Accounting with QuickBooks	3-4
OIS-11500	Medical Billing and Coding	3
OIS-18201/02/03 Or OIS-11401/02/03	Word Processing I – A/B/C Or Keyboarding II-A/B/C	3
OIS-20501/02/03	Records Management-A/B/C	3
OIS-21100	Medical Office Procedures	3
OIS-24108	Internship – Medical Clerk	3

Suggested sequence of courses:

Semester I (Fall)
ALH-10101—Medical Terminology
CIS-10500—Intro to Computers
ENG-10000—Writing Lab
ENG-10303—English Composition I
OIS-10600—Intro to Health Information Systems
OIS-18201/02/03 or OIS-11401/02/03—Word Processing I-A/B/C or Keyboarding II-A/B/C

Semester II (Winter)
ALH-11201—Medical Ethics & Law
OIS-10500—Business Correspondence
OIS-10701/02/03—Medical Office Transcription-A/B/C
OIS-20501/02/03—Records Management-A/B/C
OIS-11500—Medical Billing & Coding
OIS-21100—Medical Office Procedures

Semester III (Summer)
OIS-11201 or ACC-10600 or ACC-12500—Business Calculations or Fundamentals of Accounting or Computer Accounting w/QuickBooks
OIS-24108—Internship-Medical Clerk

For assistance with course selection, sequencing and arranging your schedule, please consult with your advisor.

MEDICAL SECRETARY
Associate in Applied Science (DMES1)

Minimum Credits: 62
Contact Hours: 63-70

Introduction
Medical Secretary is one of the specialized secretarial programs Kirtland offers. Graduates of this program are trained in a variety of skills that will enable them to work for physicians in either a private medical office or in various hospital settings such as medical records, the business office, or the emergency room. This program places emphasis on the development of proficiency in word processing and related computerized tasks, medical office procedures, insurance billing and coding, transcription of medical dictation for medical specialties, and administrative secretarial duties.

A program GPA of 2.3 is required for graduation. Courses consisting of modules (A, B, C) require an average grade of C+, with a minimum grade in any single module of at least a C (2.0). Additionally, all 3-credit OIS courses require a minimum grade of C+ (2.3).

Course	Title	Credits
ALH-10101	Medical Terminology	2
ALH-11201	Medical Ethics & Law	1
BIO-10700	Essentials of Anatomy & Physiology	4
CIS-10500	Introduction to Computers	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
MTH-12000	Intermediate Algebra or higher	3-4
OIS-10500	Business Correspondence	3
OIS-10600	Intro to Health Information Systems	3
OIS-10701/02/03	Medical Office Transcription-A/B/C	3
OIS-11201 Or ACC-10600 Or ACC-12500	Business Calculations Or Fundamentals of Accounting Or Accounting with QuickBooks	3-4
OIS-11401/02/03	Keyboarding II-A/B/C	3
OIS-11500	Medical Billing & Coding	3
OIS-18201/02/03	Word Processing I- A/B/C	3
OIS-20501/02/03	Records Management-A/B/C	3
OIS-21100	Medical Office Procedures	3
OIS-22100	Office Pharmacology	2
OIS-22200	Word Processing II-Word	3
OIS-24103	Internship – Medical Secretary	3
POL-10100	Intro to American Government	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal & Public Comm	3
	Humanities Elective	2-4
	Any Social Science	3-4

Suggested sequence of courses:

Semester I (Fall)
ALH-10101—Medical Terminology
ENG-10000—Writing Lab
ENG-10303—English Composition I
OIS-10600—Intro to Health Information Systems
OIS-10701/02/03—Medical Office Transcription-A/B/C
OIS-18201/02/03—Word Processing I-A/B/C

Semester II (Winter)
BIO-10700—Essentials of Anatomy & Physiology
CIS-10500—Intro to Computers
OIS-11401/02/03—Keyboarding II-A/B/C
OIS-20501/02/03—Records Management-A/B/C

Semester III (Fall)
MTH-12000—Intermediate Algebra or higher
OIS-22200—Word Processing II-Word
POL-10100—Intro to American Government
SPE-10500 or SPE-11400—Fund of Speech or Interpersonal & Public Communication
Humanities elective

Semester IV (Winter)
ALH-11201—Medical Ethics & Law
OIS-11201 or ACC-10600 or ACC-12500—Business Calculations or Fund of Accounting or Accounting w/QuickBooks
OIS-11500—Medical Billing & Coding
OIS-21100—Medical Office Procedures
OIS-22100—Office Pharmacology
Social Science elective

Semester V (Summer)
OIS-10500—Business Correspondence
OIS-24103—Internship –Medical Secretary

For assistance with course selection, sequencing and arranging your schedule, please consult with your advisor.

MEDICAL TRANSCRIPTION
Certificate of Completion (CMET0)

Minimum Credits: 31
Contact Hours: 32-34

Introduction
This program provides the career training necessary to transcribe physicians' dictated reports for medical records used in medical offices, hospitals, insurance companies, courts, governmental agencies and other medical-related business. The student will acquire a background in general office skills as well as intensive training in transcribing actual medical dictation. Students may continue in this program by pursuing the Associate in Applied Science: Medical Transcription degree.

A program GPA of 2.3 is required for graduation. Courses consisting of modules (A, B, C) require an average grade of C+, with a minimum grade in any single module of at least a C (2.0). Additionally, all 3-credit OIS courses require a minimum grade of C+ (2.3).

Course	Title	Credits
ALH-10101	Medical Terminology	2
ALH-11201	Medical Ethics & Law	1
BIO-10700	Essentials of Anatomy & Physiology	4
ENG-10000	Writing Lab (if required)	0-1
ENG-10303	English Composition I w/Computers	3
OIS-10600	Intro to Health Information Systems	3
OIS-10701/02/03	Medical Office Transcription-A/B/C	3
OIS-10800	Medical Transcription I	3
OIS-18201/02/03	Word Processing I – A/B/C	3
OIS-20601/02/03	Medical Transcription II – A/B/C	3
OIS-22100	Office Pharmacology	2
OIS-24106	Internship – Medical Transcription	3

Suggested sequence of courses:

Semester I
ALH-10101—Medical Terminology
ALH-11201—Medical Ethics & Law
ENG-10000—Writing Lab
ENG-10303—English Composition I
OIS-10701/01/03—Medical Office Transcription-A/B/C
OIS-18201/02/03—Word Processing I-A/B/C

Semester II
OIS-10600—Intro to Health Information Systems
BIO-10700—Essentials of Anatomy & Physiology
OIS-10800—Medical Transcription I
OIS-22100—Office Pharmacology

Semester III
OIS-20601/02/03—Medical Transcription II-A/B/C
OIS-24106—Internship-Medical Transcription

For assistance with course selection, sequencing and arranging your schedule, please consult with your advisor.

MEDICAL TRANSCRIPTION
Associate in Applied Science (DMET0)

Minimum Credits: 60
Contact Hours: 61-66

Introduction
This program provides the career training necessary to transcribe physicians' dictated reports for medical records used in medical offices, hospitals, insurance companies, courts, governmental agencies, and other medical-related businesses. The student will acquire a background in general office skills as well as intensive training in transcribing actual medical dictation. A student must have completed the equivalent of one year of typing and be able to type a minimum of 40 words per minute in order to enter the program.

A program GPA of 2.3 is required for graduation. Courses consisting of modules (A, B, C) require an average grade of C+, with a minimum grade in any single module of at least a C (2.0). Additionally, all 3-credit OIS courses require a minimum grade of C+ (2.3).

Course	Title	Credits
ALH-10101	Medical Terminology	2
ALH-11201	Medical Ethics & Law	1
BIO-10700	Essentials of Anatomy & Physiology	4
CIS-10500	Introduction to Computers	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
MTH-12000	Intermediate Algebra or higher	3-4
OIS-10500	Business Correspondence	3
OIS-10600	Intro to Health Information Systems	3
OIS-10701/02/03	Medical Office Transcription-A/B/C	3
OIS-10800	Medical Transcription I	3
OIS-11401/02/03	Keyboarding II-A/B/C	3
OIS-18201/02/03	Word Processing I – A/B/C	3
OIS-20501/02/03	Records Management-A/B/C	3
OIS-20600	Medical Transcription II	3
OIS-20700	Medical Transcription III	3
OIS-22100	Office Pharmacology	2
OIS-24106	Internship-Medical Transcription	3
POL-10100	Intro to American Government	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal & Public Comm	3
	Humanities elective	2-4
	Social Science elective	3-4

Suggested sequence of courses:

Semester I (Fall)
ALH-10101—Medical Terminology
ENG-10000—Writing Lab
ENG-10303—English Composition I
OIS-10600—Intro to Health Information Systems
OIS-10701/02/03—Medical Office Transcription-A/B/C
OIS-18201/02/03—Word Processing I-A/B/C

Semester II (Winter)
BIO-10700—Essentials of Anatomy & Physiology
CIS-10500—Intro to Computers
OIS-10800—Medical Transcription I
OIS-11401/02/03—Keyboarding II-A/B/C
OIS-20501/02/03—Records Management-A/B/C

Semester III (Fall)
MTH-12000—Intermediate Algebra or higher
OIS-10500—Business Correspondence
OIS-20600—Medical Transcription II
SPE-10500 or SPE-11400—Fund of Speech or Interpersonal & Public Communication

Semester IV (Winter)
ALH-11201—Medical Ethics & Law
OIS-20700—Medical Transcription III
OIS-22100—Office Pharmacology
POL-10100—Intro to American Government
Humanities elective
Social Science elective

Semester V (Summer)
OIS-24106—Internship-Medical Transcription

For assistance with course selection, sequencing and arranging your schedule, please consult with your advisor.

OFFICE ASSISTANT

Minimum Credits: 30

Certificate of Completion (COAS0)

Contact Hours: 30-33

Introduction: Kirtland's Office Assistant program is designed to prepare the students with marketable skills needed for employment in office work situations where clerical and/or secretarial skills are required. All courses in this program may apply to the Associate in Applied Science degrees: Administrative Assistant, Legal Secretary, and Medical Secretary.

A program GPA of 2.3 is required for graduation. Courses consisting of modules (A, B, C) require an average grade of C+, with a minimum grade in any single module of at least a C (2.0). Additionally, all 3-credit OIS courses require a minimum grade of C+ (2.3).

The OIS elective should be determined in consultation with advisor.

Course	Title	Credits
CIS-10500	Introduction to Computers	3
ENG-10000	Writing lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
OIS-10500	Business Correspondence	3
OIS-11201 Or ACC-10600 Or ACC-12500	Business Calculations Or Fundamentals of Accounting Or Computer Accounting w/QuickBooks	3-4
OIS-11401/02/03	Keyboarding II – A/B/C	3
OIS-18201/02/03	Word Processing I-Word A/B/C	3
OIS-20501/02/03	Records Management-A/B/C	3
OIS-21400	Keyboarding III	3
OIS-22200	Word Processing II-Word	3
OIS-_____	OIS elective (See advisor for approval)	3

Suggested sequence of courses:

Semester I (Fall)
EMG-10000—Writing Lab
ENG-10303—English Composition I
OIS-11401/02/03—Keyboarding II-A/B/C
OIS-11201 or ACC-10600 or ACC-12500—Business Calculations or Fund of Accounting or Computer Accounting w/QuickBooks
OIS-18201/02/03—Word Processing I-Word A/B/C
OIS elective with advisor approval

Semester II (Winter)
CIS-10500—Intro to Computers
OIS-10500—Business Correspondence
OIS-20501/02/03—Records Management-A/B/C
OIS-21400—Keyboarding II
OIS-22200—Word Processing II-Word

For assistance with course selection, sequencing and arranging your schedule, please consult with your advisor.

ADMINISTRATIVE ASSISTANT
Associate in Applied Science (DADA0)

Minimum Credits: 62
Contact Hours: 64-75

Introduction
The office careers program at Kirtland includes intensive training in basic and advanced secretarial and clerical courses stressing the use of current office procedures and practices assisted by modern equipment and facilities. A variety of courses are offered to meet the needs of beginning and advanced students. This program is designed to enable graduates to obtain positions of responsibility in a variety of office situations. Students may substitute advanced courses for beginning courses with prior advisor approval.

A program GPA of 2.3 is required for graduation. Courses consisting of modules (A, B, C) require an average grade of C+, with a minimum grade in any single module of at least a C (2.0). Additionally, all 3-credit OIS courses require a minimum grade of C+ (2.3).

Course	Title	Credits
BUS-10100	Introduction to Business	3
CIS-10500	Introduction to Computers	3
CIS-17001	Microsoft Office	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
MTH-12000	Intermediate Algebra or higher	3-4
OIS-10500	Business Correspondence	3
OIS-11201 Or ACC-10600 Or ACC-12500	Business Calculations Or Fundamentals of Accounting Or Computer Accounting w/QuickBooks	3-4
OIS-11401/02/03	Keyboarding II - A/B/C	3
OIS-18201/02/03	Word Processing I – A/B/C	3
OIS-19001/02/03	Machine Transcription - A/B/C	3
OIS-20501/02/03	Records Management-A/B/C	3
OIS-21000	Office Procedures	3
OIS-21400	Keyboarding III	3
OIS-21500	Desktop Publishing for the Office	3
OIS-22200	Word Processing II-Word	3
OIS-24101	Internship – Administrative Assistant	3
POL-10100	Intro to American Government	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal & Public Comm	3
	Humanities Elective	2-4
	Science course with lab	3-5
	Social Science elective	3-4

Suggested sequence of courses:

Semester I (Fall)
BUS-10100—Intro to Business
CIS-10500—Intro to Computers
ENG-10000—Writing Lab
ENG-10303—English Composition I
OIS-18201//02/03—Word Processing I-A/B/C
OIS-20501/02/03—Records Management-A/B/C

Semester II (Winter)
MTH-12000—Intermediate Algebra
OIS-11401/02/03—Keyboarding II-A/B/C
OIS-19001/02/03—Machine Transcription-A/B/C
OIS-22200—Word Processing II-Word

Semester III (Fall)
OIS-10500—Business Correspondence
OIS-21400—Keyboarding III
OIS-21500—Desktop Publishing for the Office
SPE-10500 or SPE-11400—Fund of Speech or Interpersonal & Public Communication
Humanities elective
Science elective (with lab)

Semester IV (Winter)
CIS-17001—Microsoft Office
OIS-11201 or ACC-10600 or ACC-12500—Business Calculations or Fund of Accounting or Computer Accounting w/QuickBooks
OIS-21000—Office Procedures
POL-10100—Intro to American Government
Social Science elective

Semester V (Summer)
OIS-24101—Internship-Administrative Assistant

For assistance with course selection, sequencing and arranging your schedule, please consult with your advisor.

LEGAL SECRETARY
Associate in Applied Science (DLES1)

Minimum Credits: 64
Contact Hours: 67-75

Introduction
Kirtland's Legal Secretary program is specifically designed to educate students in the skills necessary to secure employment by attorneys, judges, corporate legal departments, or government offices where knowledge of legal terminology and procedures is required. All candidates for an Associate in Applied Science: Legal Secretary degree must complete the courses below. Students may substitute advanced courses for beginning courses with prior advisor approval.

A program GPA of 2.3 is required for graduation. Courses consisting of modules (A, B, C) require an average grade of C+, with a minimum grade in any single module of at least a C (2.0). Additionally, all 3-credit OIS courses require a minimum grade of C+ (2.3).

Course	Title	Credits
ALH-10101	Medical Terminology	2
BUS-21500	Legal Environment of Business	3
CIS-10500	Introduction to Computers	3
ENG-10000	Writing lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
MTH-12000	Intermediate Algebra or higher	3-4
OIS-10500	Business Correspondence	3
OIS-11201 Or ACC-10600 Or ACC-12500	Business Calculations Or Fundamentals of Accounting Or Computer Accounting w/QuickBooks	3-4
OIS-11401/02/03	Keyboarding II – A/B/C	3
OIS-17000	Legal Terminology/Transcription	3
OIS-18201/02/03	Word Processing I – A/B/C	3
OIS-19001/02/03	Machine Transcription – A/B/C	3
OIS-20501/02/03	Records Management-A/B/C	3
OIS-21400	Keyboarding III	3
OIS-21500 Or CIS-17001	Desktop Publishing for the Office Or Microsoft Office	3
OIS-22200	Word Processing II – Word	3
OIS-22500	Legal Office Procedures	3
OIS-24102	Internship – Legal Secretary	3
POL-10100	Intro to American Government	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal & Public Comm	3
	Humanities Elective	2-4
	Any Science course with a lab	3-5
	Any Social Science course	3-4

Suggested sequence of courses:

Semester I (Fall)
ALH-10101—Medical Terminology
CIS-10500—Intro to Computers
ENG-10000—Writing Lab
ENG-10303—English Composition I
OIS-18201/02/03—Word Processing I-A/B/C
OIS-20501/02/03—Records Management-A/B/C

Semester II (Winter)
OIS-11201 or ACC-10600 or ACC-12500—Business Calculations or Fund of Accounting or Computer Accounting w/QuickBooks
OIS-11401/02/03—Keyboarding II-A/B/C
OIS-19001/02/03—Machine Transcription-A/B/C
OIS-22200—Word Processing II-Word
SPE-10500 or SPE -11400—Fund of Speech of Interpersonal & Public Communication

Semester III (Fall)
BUS-21500—Legal Environment of Business
MTH-12000—Intermediate Algebra or higher
OIS-17000—Legal Terminology/Transcription
OIS-21500 or CIS-17001—Desktop Publishing for the Office or Microsoft Office
Humanities elective

Semester IV (Winter)
OIS-10500—Business Correspondence
OIS-22500—Legal Office Procedures
POL-10100—Intro to American Government
Science course with lab
Social Science elective

Semester V (Summer)
OIS-21400—Keyboarding III
OIS-24102—Internship-Legal Secretary

For assistance with course selection, sequencing and arranging your schedule, please consult with your advisor.

TECHNOLOGY MANAGEMENT

Associate in Applied Science
- *Technology Management*

Partnership Programs
- Davenport University
- Franklin University

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

Foundation
Kirtland Community College recognizes the importance of students possessing basic academic skills in English, reading, and mathematics in order to successfully complete college-level courses. Therefore, all entry-level students are required to demonstrate their proficiency in basic academic skills, as these courses are the foundation for success in all programs. The student's advisor will indicate which of the following courses need to be taken based on ACT scores or COMPASS placement testing results. It is highly recommended that students take these courses during the first semester in order to prepare for the road ahead, as well as possibly satisfying prerequisites needed for more advanced courses. Specific courses needed may be tracked below. *Students must plan additional time to complete their program requirements if placement results demonstrate the need to begin with preparatory courses (courses numbered less than 10000).*
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☐ ENG-10000 Writing Lab (if required)
☐ English: _____
☐ Mathematics: _____
☐ Reading: _____

For more information, please contact the Technology Management advisor.
Don Dyer 989-275-5000, ext. 231

TECHNOLOGY MANAGEMENT
Associate in Applied Science (DTEC0)

Minimum Credits: 60
Contact Hours: 61-76

Introduction
The Technology Management degree is designed for students who want to apply their prior and current technical training and/or education toward the completion of an associate degree. This degree is an appealing choice for students who are former military, current military, or non-completers of one or more technical education programs.

General Education Requirements, 23-30 credits:

Course	Title	Credits
CIS-10500	Introduction to Computers	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403 Or ENG-10602	English Composition II w/Computers Or Technical Writing w/Computers	3
MTH-12000	Intermediate Algebra or higher	3-4
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal & Public Comm	3
	Humanities elective	2-4
	Social Science elective	3-4
	Any Science elective with lab	3-5

Leadership/Management, 6 credits:

Course	Title	Credits
	Select 2 courses (or 6 credits) from:	
BUS-10100 And/or BUS-21000 And/or BUS-24500	Introduction to Business And/or Principles of Management And/or Personnel Management And/or Military Credit for Supervision, Management, or Leadership	6

Technical Elective Courses, 15 credits:
College courses or military equivalent credit from the following list of career/technical programs must be taken to fulfill this requirement. Substitute courses may be taken with the approval of an advisor and academic dean.

Technical Electives: Accounting, Allied Health, Automotive Technology, Aviation, Business, Carpentry, Computer Aided Drafting, Computer Information Systems, Cosmetology, Criminal Justice, Electrical Technology, Engineering Design Technologies, Fire Fighter Training, Heating/Ventilation/AC/Refrigeration, Industrial Maintenance, Machine Tool Technology, Manufacturing Processes Technology, Marketing, Massage Therapy, Nursing, Office Information Systems, Outdoor Power Equipment, Pharmacy, Plumbing, Sonography, Surgical Technology, Welding or other Technical elective transferred to Kirtland as "TEC" or ZZZ."

General Elective Courses, 15-16 credits:

Any 10000-level or higher course can be used. Up to three credits in Physical Education courses can be applied toward degree requirements.

TRANSFER CERTIFICATES & DEGREES

Special Certificate

- *General Studies*

Certificate

- *General Studies*

Associate Degrees

- *Associate in Arts*
- *Associate in Business Administration*
- *Associate in Computers*
  - *Computer Information Systems*
  - *Computer Science*
- *Associate in Fine Arts*
  - *Creative Writing*
  - *Studio Arts*
  - *Theatre Arts*
- *Associate in Science*
  - *Life Science*
  - *Physical Science*

Foundation

Kirtland Community College recognizes the importance of students possessing basic academic skills in English, reading, and mathematics in order to successfully complete college-level courses. Therefore, all entry-level students are required to demonstrate their proficiency in basic academic skills, as these courses are the foundation for success in all programs. The student's advisor will indicate which of the following courses need to be taken based on ACT scores or COMPASS placement testing results. It is highly recommended that students take these courses during the first semester in order to prepare for the road ahead, as well as possibly satisfying prerequisites needed for more advanced courses. Specific courses needed may be tracked below. *Students must plan additional time to complete their program requirements if placement results demonstrate the need to begin with preparatory courses (courses numbered less than 10000).*

☐ ENG-10000 Writing Lab (if required) ☐ Mathematics: _____
☐ English: _____ ☐ Reading: _____

CERTIFICATES OF GENERAL STUDIES

Many students come first to Kirtland then transfer either to a four-year college/university, to another community college which offers different programs, or obtain specific coursework which does not involve receiving a credential from Kirtland. These two certificates provide an avenue for students to receive recognition for college-level coursework before continuing on toward their degree goal at another institution.

GENERAL STUDIES
Special Certificate (SGEN0)

Minimum Credits: 15
Contact Hours: 16-18

Course	Title	Credits
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
	Choose at least 11 credits from at least 3 areas of 100 level or higher courses from: Business, Computer Information Systems, Humanities, Math, Science, or Social Sciences.	

GENERAL STUDIES
Certificate of Completion (CGEN0)

Minimum Credits: 30
Contact Hours: 31 or more

Course	Title	Credits
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG or SPE	Any English or Speech	3
MTH-12000	Intermediate Algebra or higher	4
	Humanities or Social Science	3
	Any science with lab	4
	Choose at least 12-13 credits of 100 level or higher courses from: Business, Computer Information Systems, Humanities or Social Sciences.	13 or more

***INTERESTED IN BECOMING A TEACHER?**

Students interested in pursuing a Bachelor of Arts or Bachelor of Science in Education degree should work closely with an advisor when planning pre-education course work for a degree in Elementary, Secondary, or Special Education. Students should choose their transfer degree based upon the requirements of the school to which they intend to transfer. Although some similarities exist in course requirements among the universities or colleges that prepare teachers, there are also differences that can complicate the advising process and the selection of appropriate courses for transfer to the student's university or college of choice. Oftentimes, the Associate in Arts or Associate in Science transfer degree offered at Kirtland will be appropriate, but for other schools, the Associate in Teaching degree more closely matches the requirements of the receiving school. Therefore, it is very important that each student meet with a counselor or faculty advisor.

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

ASSOCIATE IN ARTS
(DLIB0)

Minimum Credits: 60
Contact Hours: 62-63

Introduction
The Associate in Arts degree program is designed for students who plan to eventually complete a bachelor's degree in the field of education, liberal arts, humanities, or social sciences. Listed below are some of the majors pursued by students following this program:

Art	Education *(Elementary, Secondary, & Special)	Journalism	Social Science
Anthropology	English	Music	Social Work
Archaeology	Geography	Political Science	Sociology
Communications	History	Pre-Law	Speech
Criminal Justice	Humanities	Psychology	Theatre

Students planning to transfer to a four-year college or university must consult with their advisor and carefully study the requirements of the four-year institution from which they intend to secure a bachelor's degree. Appropriate course substitutions may be made upon the recommendation of a student's advisor, and with approval of the appropriate dean or associate dean. Substitutions are only made in accordance with the specific requirements of the baccalaureate degree-granting institution to which the student intends to transfer.

Students who have previously attended other colleges or universities may apply earned transfer credit in subject areas (i.e., psychology elective, biology elective, etc.) where deemed appropriate. This degree satisfies the requirements of the MACRAO Transfer Agreement as defined in the handbook section of the college catalog.

Communications (12-13 credits):

Course	Title	Credits
CIS-10500	Introduction to Computers	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal & Public Communication	3

Humanities (11-13 credits):

	Select 2-3 credits from Art, Music, or Theatre	2-3
	Select 3-4 credits from Journalism, Languages, or Literature	3-4
	History elective	3
	Philosophy elective	3

Social Science (12-13 credits):

ANT-10100 Or SOC-10100 Or PSY-10100	Cultural Anthropology Or Introduction to Sociology Or Introduction to Psychology	3
GEO-10000 Or POL-20000 Or POL-20100	World Geography Or International Relations Or Comparative Government	3-4
POL-10100	Introduction to American Government	3
	Select an additional course from ANT, ECO, GEO, POL, PSY, or SOC	3

Math/Natural Science (9-14 credits):

MTH-13000	College Algebra or higher	3-4
	Select two science courses with a lab from AST, BIO, CHE, GEL, or PHY	6-10

Electives (8-13 credits):

	Select any 100-level or higher courses. A maximum of 3 credits in Physical Education courses can be used.	8-13

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

ASSOCIATE IN BUSINESS ADMINISTRATION
(DABA1)

Minimum Credits: 60
Contact Hours: 62-64

Introduction

The Associate in Business Administration degree is designed for students who plan to eventually complete a bachelor's degree in a business-related field. Listed below are some of the majors pursued by students following this program:

Accounting	Economics	General Business	Marketing	Public Administration
Advertising	Finance	Management	Personnel/Industrial Relations	

Students planning to transfer to a four-year college or university must consult with their advisor and carefully study the requirements of the four-year institution from which they intend to secure a bachelor's degree. Appropriate course substitutions may be made upon the recommendation of a student's advisor and with approval of the appropriate dean or associate dean. Substitutions are only made in accordance with the specific requirements of the baccalaureate degree-granting institution to which the student intends to transfer.

Students who have previously attended other colleges or universities may apply earned transfer credit in subject areas (i.e., psychology elective, biology elective, etc.) where deemed appropriate. This degree satisfies the requirements of the MACRAO Transfer Agreement as defined in the Handbook section of this catalog.

Course	Title	Credits
ACC-12100	Accounting Principles I	4
ACC-12200	Accounting Principles II	4
	Select 4-11 credit hours from the following:	
ACC-12500	Computer Accounting/QuickBooks	4
BUS-10100	Introduction to Business	3
BUS-201--	Internship in Business & Marketing	3-9
BUS-20200	Grant Writing	3
BUS-21000	Principles of Management	3
BUS-21100	E-Commerce Management	3
BUS-21500	Legal Environment of Business	3
BUS-24000	Financial Management	3
BUS-24500	Personnel Management	3
MKT-11000	Principles of Selling	3
MKT-11500	Customer Relations	3
MKT-20000	Principles of Marketing	3
MKT-20100	Principles of Retailing	3
MKT-20200	Internet Marketing	3
MKT-20400	Advertising	3
MKT-21000	Market Research	3

General Education

Communications (12-13 credits):

CIS-10500	Introduction to Computers	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Into to Interpersonal & Public Comm	3

Humanities (8-10 credits):

	Select 2-3 credits from Art, Music, or Theater	3
	Select 3-4 credits from Journalism, Languages, or Literature	3-4
	Any HIS (History) OR PHL(Philosophy)	3

Social Science (12 credits):

	Any ANT (Anthropology) or PSY (Psychology) or SOC (Sociology) Elective	3
ECO-20100	Principles of Economics (Macroeconomics)	3
ECO-20200	Principles of Economics (Microeconomics)	3
POL-10100	Introduction to American Government	3

Math & Natural Science (9-13 credits):

MTH-13000	College Algebra or higher	3-4
MTH-20600	Application in Statistics	3-4
	One science course with a lab	3-5

See information on our partnership programs on the web at http://kirtland.edu/ss/transferfrom.htm

ASSOCIATE IN COMPUTERS

Minimum Credits: 60

Computer Science (DACP0) — **Contact Hours: 62-69**

or Computer Information Systems (DACP1) — **Contact Hours: 65-70**

Introduction

Students interested in pursuing a career in the computer field should plan to eventually complete a bachelor's degree at a four-year school of their choice. Computer majors are found in two separate areas: Computer Information Systems and Computer Science.

Computer Science degrees are mathematically and engineering oriented. Positions of employment would include computer programmers, systems programmers, software engineers, systems engineers, database administrators, network administrators, systems administrators, or systems analysts. Degrees in this area include the following: Software Engineering, Computer Science, Computer Engineering or Computer Networking.

Computer Information Systems degrees are business oriented. Positions of employment would include computer programmers, application programmers, systems analysts, network administrators, database administrators, systems administrators, web developers, or microcomputer specialists. Degrees in these areas include the following: Management Information Systems (MIS), Computer Information Systems (CIS) or Information Systems (IS).

Students planning to transfer to a four-year college or university must consult with a Computer Information Systems (CIS) advisor and carefully study the requirements of the four-year institution from which they intend to secure a bachelor's degree. Appropriate course substitutions may be made upon the recommendation of a student's advisor and with the approval of the appropriate dean. Substitutions are only made in accordance with the specific requirements of the baccalaureate degree granting institution to which the student intends to transfer.

Students who have previously attended other colleges or universities may apply earned transfer credit in subject areas (i.e., psychology, elective, biology elective etc.) where deemed appropriate. This degree also satisfies the requirements of the MACRAO Transfer Agreement as defined in the handbook section of the college catalog.

Suggested sequencing of courses for Computer Science (DACP0):

Year 1: Fall Semester	Year 2: Fall Semester
Chemistry with lab CIS 10500—Intro to Computers ENG-10000—Writing Lab ENG-10303—English Composition I MTH-12000—Intermediate Algebra or higher or elective from list if math sequence is complete (excluding MTH-20500/20600)	CIS-27001—Programming I GEO-10000 or POL-20000 or POL-20100—World Geography or International Relations or Comparative Government Humanities elective from ART, MUS, or THE MTH-22002—Calculus I or higher or elective course if math sequence is already completed SPE-10500 or SPE-11400—Fund of Speech or Interpersonal & Public Comm
Year 1: Winter Semester	**Year 2: Winter Semester**
ENG-10403—English Composition II MTH-13000—College Algebra or higher or elective from list if math sequence is complete (excluding MTH-20500/20600) MTH-14000—Trigonometry or higher or elective from list if math sequence is complete (excluding MTH-20500/20600) POL-10100—Intro to American Government PSY-10100 or SOC-10100—Intro to Psychology or Intro to Sociology	BIO course from list CIS-27101—Programming II CIS or MTH elective from list HIS course from list Humanities elective—Language or Literature course

Suggested sequencing of courses for Computer Information Systems (DACP1):

Year 1: Fall Semester	Year 2: Fall Semester
Chemistry with lab CIS 10500—Intro to Computers ENG-10000—Writing Lab ENG-10303—English Composition I MTH-12000—Intermediate Algebra or higher or elective from list if math sequence is complete (excluding MTH-20500/20600)	CIS-27001—Programming I GEO-10000 or POL-20000 or POL-20100—World Geography or International Relations or Comparative Government Humanities elective--Language or Literature course SPE-10500 or SPE-11400—Fund of Speech or Interpersonal & Public Comm CIS elective from approved list
Year 1: Winter Semester	**Year 2: Winter Semester**
BIO course from list ENG-10403—English Composition II MTH-13000—College Algebra or higher or elective from list if math sequence is complete (excluding MTH-20500/20600) POL-10100—Intro to American Government PSY-10100 or SOC-10100—Intro to Psychology or Intro to Sociology	CIS-27101—Programming II CIS or MTH elective from list HIS course from list Humanities elective from ART, MUS, or THE 2 CIS electives from approved list

Note: Electives are degree-specific, and are listed on the following pages. For assistance with course selection, sequencing and arranging your schedule, please consult with your advisor.

ASSOCIATE IN COMPUTERS

Computer Science (DACP0)

Minimum Credits: 60
Contact Hours: 62-69

Communications (12-13 credits):

Course	Title	Credits
CIS-10500	Introduction to Computers	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal & Public Communication	3

Humanities (8-10 credits):

	Select 2-3 credits from Art, Music, or Theatre	2-3
Note:	Select 3-4 credits from Languages or Literature *See CIS advisor for recommended courses.*	3-4
HIS-10500 Or HIS-10600 Or HIS-20100 Or HIS-20200 Or HIS-20300 Or HIS-20400	History of World Societies to 1500 Or History of World Societies Since 1500 Or United States History to 1865 Or United States History Since 1865 Or Michigan History Or The American Civil War	3

Social Science (9-10 credits):

PSY-10100 Or SOC-10100	Introduction to Psychology Or Introduction to Sociology	3
GEO-10000 Or POL-20000 Or POL-20100	World Geography Or International Relations Or Comparative Government	3-4
POL-10100	Introduction to American Government	3

Math/Natural Science (10-24 credits):

MTH-12000	Intermediate Algebra (if needed)	0-4
MTH-13000	College Algebra (if needed)	0-4
MTH-14000	Trigonometry (if needed)	0-3
MTH-22002	Calculus I or higher	3-4
Note:	Chemistry w/lab *See CIS advisor for recommended course.*	4-5
BIO-10100 Or BIO-20100 Or BIO-20200 Or BIO-21000 Or BIO-21300 *Note:*	General Biology Or General Botany Or General Zoology Or Microbiology Or Nature Study *See CIS advisor for recommended course.*	3-4

CIS Requirements and approved electives (7-21 credits):

CIS-27001	Programming I	3
CIS-27101	Programming II	4
	Allowed electives * (See note below):	
CIS-11700	Visual Basic I	3
CIS-17001	Microsoft Office	3
CIS-22400	UNIX	2
CIS-23501	Database Design	3
CIS-26000	Intro to Computer Networking	3
MTH-22102	Calculus II	4
***Note:**	**MTH-20500 or 20600 cannot be used to fulfill requirements for this degree.**	

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

ASSOCIATE IN COMPUTERS

Computer Information Systems (DACP1)

Minimum Credits: 60
Contact Hours: 65-70

Communications (12-13 credits):

Course	Title	Credits
CIS-10500	Introduction to Computers	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal & Public Communication	3

Humanities (8-10 credits):

	Select 2-3 credits from Art, Music, or Theatre	2-3
Note:	Select 3-4 credits from Languages or Literature See CIS advisor for recommended courses.	3-4
HIS-10500 Or HIS-10600 Or HIS-20100 Or HIS-20200 Or HIS-20300 Or HIS-20400	History of World Societies to 1500 Or History of World Societies Since 1500 Or United States History to 1865 Or United States History Since 1865 Or Michigan History Or The American Civil War	3

Social Science (9-10 credits):

PSY-10100 Or SOC-10100	Introduction to Psychology Or Introduction to Sociology	3
GEO-10000 Or POL-20000 Or POL-20100	World Geography Or International Relations Or Comparative Government	3-4
POL-10100	Introduction to American Government	3

Math/Natural Science (10-17 credits):

BIO-10100 Or BIO-20100 Or BIO-20200 Or BIO-21000 Or BIO-21300 *Note:*	General Biology Or General Botany Or General Zoology Or Microbiology Or Nature Study *See CIS advisor for recommended course.*	3-4
Note:	Chemistry w/lab *See CIS advisor for recommended course.*	4-5
MTH-12000	Intermediate Algebra (if needed)	0-4
MTH-13000	College Algebra	3-4

CIS Requirements and approved electives (10-21 credits):

CIS-27001	Programming I	3
CIS-27101	Programming II	4
	Allowed electives * (See note below):	
ACC-12100	Accounting Principles I	4
ACC-12200	Accounting Principles II	4
BUS-10100	Introduction to Business	3
CIS-11700	Visual Basic I	3
CIS-17001	Microsoft Office	3
CIS-22400	UNIX	2
CIS-22500	Spreadsheets	3
CIS-23501	Database Design	3
CIS-26000	Intro to Computer Networking	3
ECO-20100	Principles of Economics-Macroeconomics	3
ECO-20200	Principles of Economics-Microeconomics	3
***Note:**	**MTH-20500 or 20600 cannot be used to fulfill requirements for this degree.**	

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

ASSOCIATE IN CRIMINAL JUSTICE -GENERALIST (DCJG0)

Minimum Credits: 60
Contact Hours: 62-67

Introduction
The Associate in Criminal Justice - Generalist degree is designed for students who plan to transfer to a four-year college or university, and to help students transferring in from other colleges to meet requirements for entry into the Kirtland Regional Police Academy.

Students planning to transfer to a four-year college or university must consult with their advisor and carefully study the requirements of the four-year institution from which they intend to secure a bachelor's degree. Appropriate course substitutions may be made upon the recommendation of a student's advisor and with approval of the appropriate dean or associate dean. Substitutions are only made in accordance with the specific requirements of the baccalaureate degree-granting institution to which the student intends to transfer.

Students who have previously attended other colleges or universities may apply earned transfer credit in subject areas (i.e. psychology elective, biology elective, etc.) where deemed appropriate. This degree satisfies the requirements of the MACRAO Transfer Agreement as defined in the handbook section of this catalog.

Prerequisites
Applicants admitted to the Criminal Justice - Generalist program must meet the following special entrance requirements: 1) possess a valid Michigan motor vehicle operator's or chauffeur's license; 2) have no felony convictions; 3) have a high school diploma or GED; 4) interview by appointment with a criminal justice advisor before entering the program; 5) provide personal background information and sign release form to facilitate possible background investigation (information and/or investigation may determine eligibility to enter the program); 6) sign and abide by Criminal Justice Code of Conduct, which includes a mandatory dress code; 7) pass a physical examination before enrolling in physical training class.

Note: Students must maintain a GPA of 2.0 or higher and earn a "C" or better (2.0) in all Criminal Justice classes.

Course	Title	Credits
CJS-10000	Introduction to Criminal Justice	3
CJS-24000 (or SOC-24000)	Criminology	3
	Criminal Justice electives with advisor approval	0-4

General Education

Communications (12-13 credits):

CIS-10500	Introduction to Computers	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal/Public Comm	3

Humanities (11-13 credits):

	Select a course from ART, MUS, or THE	2-3
	Select a course from Journalism, Languages, or Literature	3-4
HIS-10500 Or HIS-10600 Or HIS-20100 Or HIS-20200 Or HIS-20300 Or HIS-20400	History of World Societies to 1500 Or History of World Societies Since 1500 Or United States History to 1865 Or United States History Since 1865 Or Michigan History Or The American Civil War	3
PHL-20100 Or PHL-21000	Intro to Philosophy Or Intro to Ethics	3

Social Science (15-16 credits):

GEO-10000 Or POL-20000 Or POL-20100	World Geography Or International Relations Or Comparative Government	4 3 3
POL-10100	Introduction to American Government	3
PSY-10100	Introduction to Psychology	3
PSY-20200	Abnormal Psychology	3
SOC-10100	Introduction to Sociology	3

Math/Natural Science (6-9-14 credits):

MTH-13000	College Algebra or higher, excluding MTH-20500 and MTH-20600	3-4
	Select two Science Electives with Labs	6-10

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

ASSOCIATE IN FINE ARTS-CREATIVE WRITING (DAFA0)

Minimum Credits: 60
Contact Hours: 62-67

The Associate in Fine Arts: Creative Writing degree is designed for students with an interest in creative writing, whether in prose or poetry or both. This degree program works to give students writing experience in several genres as well as the academic background necessary for further study at other institutions. AFA:CW students will also have the opportunity to meet and converse with practicing poets and fiction writers from outside as well as inside the Kirtland community, through the Controlled Burn reading series, as the participating writers always meet with the creative writing classes.

Because many AFA:CW students will transfer to four-year colleges or universities, they should consult their advisor and make certain that they following a course of study that also meets the requirements of the school to which they intend to transfer.

Appropriate course substitutions may be made upon the recommendation of a student's advisor and with approval of the dean or department chair. Substitutions are only made in accordance with the requirements of the baccalaureate-degree-granting institution to which the student will transfer.

Students who have previously attended other colleges or universities may apply earned transfer credit in subject areas (i.e., psychology elective, biology elective, etc.) where deemed appropriate. This degree satisfies the requirements of the MACRAO Transfer Agreement as defined in the handbook section of this catalog.

General Education

Communications (12-13 credits):

Course	Title	Credits
CIS-10500	Introduction to Computers	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal/Public Communication	3

Humanities (11-13 credits):

	Select a course from ART, MUS, or THE	2-3
	Select a course from Journalism, Languages, or Literature	3-4
	History elective	3
PHL-20100 Or PHL-21000	Intro to Philosophy Or Intro to Ethics	3

Social Science (9-10 credits):

GEO-10000 Or POL-20000 Or POL-20100	World Geography Or International Relations Or Comparative Government	4 3 3
POL-10100	Introduction to American Government	3
PSY-10100 Or SOC-10100	Introduction to Psychology Or Introduction to Sociology	3

Math/Natural Science (6-9-14 credits):

MTH-13000	College Algebra or higher, excluding MTH-20500 and MTH-20600	3-4
	Select two Science Electives with Labs from AST, BIO, CHE, GEL, or PHY	6-10

Creative Writing Option:

Course	Title	Credits
ENG-21500	Creative Writing	3
ENG-29100	Poetry Workshop I	3
ENG-29200	Fiction Workshop I	3
ENG-29300	Poetry Workshop II	3
ENG-29400	Fiction Workshop II	3
	Elective Credit, if needed	0-1

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

ASSOCIATE IN FINE ARTS—STUDIO ART (DAFA1)

Minimum Credits: 62
Contact Hours: 71-81

Introduction

The Associate in Fine Arts: Studio Art degree is designed for students with an interest in studio arts such as sculpture or painting. This degree program works to give students both practical experience in the art form of their choice, and the critical and academic background necessary for further study of the fine arts while helping develop a personal sense of aesthetic and artistic criteria. Because the artist's association with the world is stressed, a strong academic schedule is affiliated with the creative discipline.

Students planning to transfer to a four-year college or university must consult with their advisor and carefully study the requirements of the four-year institution from which they intend to secure a bachelor's degree. Appropriate course substitutions may be made upon the recommendation of a student's advisor and with approval of the appropriate dean or associate dean. Substitutions are only made in accordance with the specific requirements of the baccalaureate degree-granting institution to which the student intends to transfer.

Students who have previously attended other colleges or universities may apply earned transfer credit in subject areas (i.e., psychology elective, biology elective, etc.) where deemed appropriate. This degree satisfies the requirements of the MACRAO Transfer Agreement as defined in the handbook section of this catalog.

General Education

Communications (12-13 credits):

Course	Title	Credits
CIS-10500	Introduction to Computers	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal/Public Communication	3

Humanities (11-13 credits):

	Select a course from ART, MUS, or THE	2-3
	Select a course from Journalism, Languages, or Literature	3-4
ART-_____	Art elective	3
HIS-_____ Or ART-10000 Or ART-10103	History elective Or Art History I Or Art History II	3

Social Science (9-10 credits):

GEO-10000 Or POL-20000 Or POL-20100	World Geography Or International Relations Or Comparative Government	4 3 3
POL-10100	Introduction to American Government	3
PSY-10100 Or SOC-10100	Introduction to Psychology Or Introduction to Sociology	3

Math/Natural Science (6-9-14 credits):

MTH-13000	College Algebra or higher, excluding MTH-20500 and MTH-20600	3-4
	Select two Science Electives with Labs from AST, BIO, CHE, GEL, or PHY	6-10

Studio Art Option:

ART-28000	Portfolio	3
CIS-21900	MacIntosh O.S.X	1
ART------	Any ART Electives (recommendation: see Studio Art advisor for guidance)	15

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

ASSOCIATE IN FINE ARTS—THEATRE ARTS
(DAFA2)

Minimum Credits: 60
Contact Hours: 64-75

The Associate in Fine Arts: Theatre Arts degree is designed for students with an interest in theatre arts (such as acting, stage makeup, lighting and sound design, directing, backstage organization, etc.). This degree program works to give students both practical experience in the theatre and the critical and academic background necessary for further study of the fine arts while helping develop a personal sense of aesthetic and artistic criteria. Because the theatre artist's association with the world is stressed, a strong academic schedule is affiliated with the creative discipline. Students planning to transfer to a four-year college or university must consult with their advisor and carefully study the requirements of the four-year institution from which they intend to secure a bachelor's degree. Appropriate course substitutions may be made upon the recommendation of a student's advisor and with approval of the appropriate dean or associate dean. Substitutions are only made in accordance with the specific requirements of the baccalaureate degree-granting institution to which the student intends to transfer.

Students who have previously attended other colleges or universities may apply earned transfer credit in subject areas (i.e., psychology elective, biology elective, etc.) where deemed appropriate. This degree satisfies the requirements of the MACRAO Transfer Agreement as defined in the handbook section of the college catalog.

General Education

Communications (12-13 credits):

Course	Title	Credits
CIS-10500	Introduction to Computers	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal/Public Communication	3

Humanities (11-13 credits):

	Select a course from ART, MUS, or THE	2-3
	Select a course from Journalism, Languages, or Literature	3-4
HIS-_____	History elective	3
PHL-20100 Or PHL-21000	Intro to Philosophy Or Intro to Ethics	3

Social Science (9-10 credits):

GEO-10000 Or POL-20000 Or POL-20100	World Geography Or International Relations Or Comparative Government	4 3 3
POL-10100	Introduction to American Government	3
PSY-10100 Or SOC-10100	Introduction to Psychology Or Introduction to Sociology	3

Math/Natural Science (6-9-14 credits):

MTH-13000	College Algebra or higher, excluding MTH-20500 and MTH-20600	3-4
	Select two Science Electives with Labs from AST, BIO, CHE, GEL, or PHY	6-10

Theatre Arts Option:

THE-12000	Introduction to Theatre	3
THE-27000	Audition/Resume Workshop	3
THE- -----	Any THE Electives (recommendation: see Theatre advisor for guidance)	13

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

ASSOCIATE IN SCIENCE DEGREES

Introduction

Students who plan to eventually complete a bachelor's degree in the field of mathematics, natural science, physical science, education, or engineering are encouraged to follow the Associate in Science degree program. Listed below are some of the majors pursued by students following this program:

Biology	Education – Elementary *	Geology	Physics
Chemistry	Education - Industrial	Mathematics	Pre-Professional Health
Computer Science	Education – Secondary*	Natural Science	Pre-Engineering
Conservation	Forestry	Physical Science	Zoology

Students planning to transfer to a four-year college or university must consult with their advisor and carefully study the requirements of the four-year institution from which they intend to secure a bachelor's degree. Appropriate course substitutions may be made upon the recommendation of a student's advisor and with approval of the appropriate dean or associate dean. Substitutions are only made in accordance with the specific requirements of the baccalaureate degree-granting institution to which the student intends to transfer.

Students who have previously attended other colleges or universities may apply earned transfer credit in subject areas (i.e., psychology elective, biology elective, etc.) where deemed appropriate. This degree satisfies the requirements of the MACRAO Transfer Agreement as defined in the handbook section of the college catalog.

These curriculums are designed to provide the general education courses needed to transfer to a university for bachelor's degree completion. Career path information for students pursuing an Associate in Science degree can be found on pages 105-107 of this catalog.

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

ASSOCIATE IN SCIENCE –LIFE SCIENCE (DASC1)

Minimum Credits: 60
Contact Hours: 66-70

Communications (12-13 credits):

Course	Title	Credits
CIS-10500	Introduction to Computers	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal & Public Communication	3

Humanities (11-13 credits):

	Select 2-3 credits from Art, Music or Theatre	2-3
	Select 3-4 credits from Journalism, Languages, or Literature	3-4
HIS-10500 Or HIS-10600 Or HIS-20100 Or HIS-20200 Or HIS-20300 Or HIS-20400	History of World Societies to 1500 Or History of World Societies Since 1500 Or United States History to 1865 Or United States History Since 1865 Or Michigan History Or The American Civil War	3
PHL-20100 Or PHL-21000	Intro to Philosophy Or Intro to Ethics	3

Social Science (9-10 credits):

ANT-10100 Or SOC-10100 Or PSY-10100	Cultural Anthropology Or Introduction to Sociology Or Introduction to Psychology	3
GEO-10000 Or POL-20000 Or POL-20100	World Geography Or International Relations Or Comparative Government	3-4
POL-10100	Introduction to American Government	3

Math/Natural Science (20-26 credits):

BIO-10100	General Biology	3-4
BIO-20100 Or BIO-20200 Or BIO-21000 Or BIO-21300	General Zoology Or General Botany Or Microbiology Or Nature Study	3-4
Select either a Chemistry or a Physics sequence:		
CHE-10101/02 And CHE-10201/02 Or PHY-20101/02 And PHY-20201/02 Or PHY-22101/02 And PHY-22201/02	General Chemistry I & Lab And General Chemistry II & Lab Or Physics I with Trigonometry & Lab And Physics II with Trigonometry & Lab Or Physics I with Calculus & Lab And Physics II with Calculus & Lab	8-10
MTH-13000 Or MTH-14000 Or MTH-22002 Or MTH-22102 Or MTH-22202 Or MTH-23000	College Algebra Or Trigonometry Or Calculus I Or Calculus II Or Calculus III Or Differential Equations	3-4
MTH-20600	Application in Statistics	3-4

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

ASSOCIATE IN SCIENCE—PHYSICAL SCIENCE (DASC2)

Minimum Credits: 60
Contact Hours: 66-74

Communications (12-13 credits):

Course	Title	Credits
CIS-10500	Introduction to Computers	3
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal & Public Communication	3

Humanities (11-13 credits):

	Select 2-3 credits from Art, Music or Theatre	2-3
	Select 3-4 credits from Journalism, Languages or Literature	3-4
HIS-10500 Or HIS-10600 Or HIS-20100 Or HIS-20200 Or HIS-20300 Or HIS-20400	History of World Societies to 1500 Or History of World Societies Since 1500 Or United States History to 1865 Or United States History Since 1865 Or Michigan History Or The American Civil War	3
PHL-20100 Or PHL-21000	Intro to Philosophy Or Intro to Ethics	3

Social Science (9-10 credits):

ANT-10100 Or SOC-10100 Or PSY-10100	Cultural Anthropology Or Introduction to Sociology Or Introduction to Psychology	3
GEO-10000 Or POL-20000 Or POL-20100	World Geography Or International Relations Or Comparative Government	3-4
POL-10100	Introduction to American Government	3

Math/Natural Science (17-24 credits):

	Select either a Chemistry or a Physics sequence:	
CHE-10101/02 And CHE-10201/02 Or PHY-20101/02 And PHY-20201/02 Or PHY-22101/02 And PHY-22201/02	General Chemistry I & Lab And General Chemistry II & Lab Or Physics I with Trigonometry & Lab And Physics II with Trigonometry & Lab Or Physics I with Calculus & Lab And Physics II with Calculus & Lab	8-10
MTH-22002 Or MTH-22102 Or MTH-22202 Or MTH-23000	Calculus I Or Calculus II Or Calculus III Or Differential Equations	3-4
	Select any two or more of the following courses:	
BIO-10100 Or BIO-20100 Or BIO-21000 Or BIO-21300 Or CHE-10101/02 Or CHE-10201 Or GEL-10500 Or MTH-22102 Or MTH-22202 Or PHY-20101/02 Or PHY-20201/02 Or PHY-22101/02 Or PHY-22201/02	General Biology Or General Zoology Or Microbiology Or Nature Study Or General Chemistry I & Lab Or General Chemistry II & Lab Or Physical Geology Or Calculus II Or Calculus III Or Physics I with Trigonometry and Lab Or Physics II with Trigonometry and Lab Or Physics I with Calculus and Lab Or Physics II with Calculus	6-10

Elective credits (0-6):

	Electives, if needed	0-6

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

ASSOCIATE IN TEACHING
(DATG0)

Minimum Credits: 60
Contact Hours: 60-63

Introduction

The following program will prepare students who plan to be an elementary or secondary teacher. The program is designed for students who will be transferring to nearby universities to earn a bachelors degree in teaching. **Students should identify which university they plan to transfer to and meet with an advisor from that university during their freshman year at Kirtland Community College.** With curriculum information from the university, the student's Kirtland advisor can customize the students' freshman and sophomore schedule to best select the appropriate transfer courses. There may be substitutions to the curriculum below depending on the major, minor, university, and level of teaching targeted. You must meet with Marcell Romancky or Denise Kemp, the designated advisors at Kirtland Community College who can help students who are planning to become school teachers.

Communications (9-10 credits):

Course	Title	Credits
ENG-10000	Writing Lab, if required	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal/Public Comm	3

Education (6 credits):

EDU-10000	Introduction to Teaching	3
EDU-24000	Technology in Education	3

Humanities/Social Science (25-26 credits):

ENG-23000 Or ENG-23100	American Literature before 1865 Or American Literature after 1865	3
FRE-11000 Or SPN-11000	French I Or Spanish I	3-4
GEO-10000	World Geography	4
HIS-20100 Or HIS-20200	United States History to 1865 Or United States History Since 1865	3
MUS-10100	Music History	3
PHL-21000	Introduction to Ethics	3
POL-20100	Introduction to American Government	3
PSY-10100	Introduction to Psychology	3

Life Skills (3 credits):

CIS-10500	Introduction to Computers	3

Math/Natural Science (9-12 credits):

AST-10201/02	Astronomy I and Lab	4
BIO-10100	General Biology	3-4
MTH-12000	Intermediate Algebra	3-4

Select one option from below to complete the degree specialization you are seeking:

Elementary Education Option (6 credits):

MTH-11700	Mathematics for Elementary Teachers I	3
MTH-21700	Mathematics for Elementary Teachers II	3

Secondary Education Option (3-4 credits):

MTH-13000	College Algebra or higher	3-4

Electives (0-3 credits):

	Select any 100-level or higher courses if needed	0-3

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

CAREER PATHS FOR ASSOCIATE IN SCIENCE DEGREES

Biology

Nature of the Work: Biological scientists study living organisms and their relationship to the environment. Most specialize in some area of biology such as zoology (the study of animals) or microbiology (the study of microscopic organisms). Many biologists work in research and development. Others work in management or administration in which they plan and administer programs for testing food and drugs, for example, or direct activities at zoos or botanical gardens. Other related occupations include foresters, range managers, soil conservationists, animal breeders, horticulturists, soil scientists, agricultural and life scientists, as well as many health occupations.

Employment: For biological scientists, the Ph.D. degree is generally required for college teaching, independent research, and for administrative positions. A master's degree is sufficient for some jobs in applied research and management, inspection, sales, and service. The bachelor's degree is adequate for some non-research jobs. Some bachelor's degree graduates start as biological scientists in testing and inspection, or get jobs such as technical sales or service representatives. Others become high school biology teachers with additional education courses.

The Program: The Kirtland Community College biology curriculum is designed to provide the general education courses that are required to transfer to a university for bachelor's degree completion.

The following is a sample program. You will need to work with your advisor and transfer school to ensure a smooth transition.

First Year

Fall Semester		**Winter Semester**	
ENG-10000 Writing Lab	0-1	ENG-10403 English Composition II	3
ENG-10303 English Composition I & Lab	3	POL-10100 Intro to American Government	3
BIO-10100 General Biology	4	Humanities course	3
CHE-10101/02 General Chemistry I w/lab	5	BIO-20100 General Zoology	4
MTH-13000 College Algebra	4	CHE-10201/02 General Chemistry II	5
	16-17		18

Second Year

Fall Semester		**Winter Semester**	
Social Science Course	3	Social Science course	3
Humanities course	3	Humanities course	3
BIO-20200 General Botany		BIO-21000 Microbiology	
Or BIO-11500 Anatomy & Physiology I		Or BIO-11600 Anatomy & Physiology II	
Or GEL-10500 Geology	4	Or MTH-20600 Statistics	4
PHY-20101/02 Physics I w/Trig & lab	5	PHY-20201/02 Physics II w/Trib & lab	5
	15		15

Chemistry

Nature of the Work

Chemists search for and put to practical use new knowledge about chemicals. Many chemists work in research and development. Some also work in production and quality control in chemical manufacturing plants. Chemists often specialize in a sub-field such as analytical, organic, inorganic, or physical chemistry.

Employment

Employment of chemists and materials scientists is expected to grow 9 percent over the 2006-16 decade, about as fast as the average for all occupations. Job growth will occur in professional, scientific, and technical services firms as manufacturing companies continue to outsource their R&D and testing operations to these smaller, specialized firms. Chemists are employed in all parts of the country, but they are mainly concentrated in large industrial areas.

A bachelor's degree in chemistry or a related discipline is usually the minimum education necessary to work as a chemist. However, most research and college teaching jobs require a Ph.D. degree.

Many with bachelor's degrees in chemistry enter other occupations such as technical writing or sales representatives in chemical marketing. Some enter medical, dental, veterinary, or other health professions, and others become high school teachers.

The Program

The Kirtland Community College chemistry curriculum is designed to provide the general education courses that are required to transfer to a university for bachelor's degree completion.

The following is a sample program. You will need to work with your advisor and transfer school to ensure a smooth transition.

First Year

Fall Semester		**Winter Semester**	
ENG-10000 Writing Lab	0-1	ENG 10403 English Composition II	3
ENG-10303 English Composition I	3	POL 10100 Intro to American Government	3
Humanities course	3	MTH-11201 Calculus II	4
MTH-22002 Calculus I	4	CHE-10201/02 General Chemistry II w/lab	5
CHE-10101/02 General Chemistry I w/lab	5		15
	15-16		

Second Year

Fall Semester		**Winter Semester**	
Social Science course	3	Social Science course	3
Humanities course	3	Humanities course	3
CHE-20101/02 Organic Chemistry I w/lab	5	CHE-20201/02 Organic Chemistry II w/lab	5
PHY-20101/02 Physics I w/Trig & lab	5	PHY-20201/02 Physics II w/Trig & lab	5
	16		16

Dentistry

Nature of the Work: Dentists diagnose, prevent, and treat problems of the teeth and tissues of the mouth. In order to treat their patients, dentists use a variety of equipment including X-ray machines, drills, and instruments such as mouth mirrors, probes, forceps, brushes, and scalpels. Those in private practice oversee a variety of administrative tasks as well. In addition, they may employ and supervise hygienists, assistants, lab technicians, and receptionists.

Employment: Employment of dentists is projected to grow nine percent through 2016. About nine out of ten dentists are in private practice. Dentists are required to be licensed in all 50 states. Demand for dental services tends to follow the business cycle, primarily because these services usually are paid for either by the patient or by private insurance companies. As a result, during slow times in the economy, demand for dental services can decrease; dentists may have difficulty finding employment, or if already in an established practice, they may work fewer hours because of reduced demand.

The Program: The program at Kirtland Community College is designed to provide the general education core courses that are required to transfer to a university. Most dental students have at least a bachelor's degree. All dental schools require applicants to take the Dental Admissions Test. Dental schools generally last 4 academic years. All 50 states require dentists to be licensed.

The following is a sample program. You will need to work with your advisor and transfer school to ensure a smooth transition.

First Year

Fall Semester		**Winter Semester**	
ENG-10000 Writing Lab	0-1	English Composition II	3
ENG-10303 English Composition I	3	Humanities course	3
BIO-10100 General Biology	4	POL-10100 Intro to American Government	3
CHE-10101/02 General Chemistry I w/lab	5	CHE-10201/02 General Chemistry II w/lab	5
MTH-22002 Calculus I	4	BIO-20100 General Zoology	4
	19-20		18

Second Year

Fall Semester		**Winter Semester**	
Social Science course	3	Humanities course	3
BIO-21000 Microbiology		BIO-20200 General Botany	
Or BIO-11600 Anatomy & Physiology I	4	Or BIO-11600 Anatomy & Physiology II	4
CHE-20101/02 Organic Chemistry I w/lab	5	CHE-20201/02 Organic Chemistry II w/lab	5
PHY-20101 Physics I w/Trig & lab	5	PHY-20201/02 Physics II w/Trig & Lab	5
	17	Social Science course	3
			20

Pre-Engineering

Nature of the Work: Engineers employ the theory and principles of science and mathematics to the economical solution of practical technical problems. They design machinery, products, systems, and processes for efficient and economical performance. Also, many engineers design, plan, and supervise the construction of buildings, highways, and transit systems. Most engineers specialize in one of more than 25 major specialties recognized by professional societies. Engineers in each specialization have knowledge and training that can be applied to many fields. They often use computers to simulate how a machine, structure, or system operates. Many engineers work in laboratories, industrial plants, or construction sites where they inspect, supervise, or solve onsite problems. Others work in an office almost all the time.

Employment: Overall job opportunities in engineering are expected to be good because the number of engineering graduates should be in rough balance with the number of job openings between 2006 and 2016. In addition to openings from job growth, many openings will be created by the need to replace current engineers who retire; transfer to management, sales, or other occupations; or leave engineering for other reasons.

The Program: The Kirtland Community College engineering curriculum is designed to provide the general education courses that are required to transfer to a university for bachelor's degree completion.

The following is a sample program. You will need to work with your advisor and transfer school to ensure a smooth transition.

First Year

Fall Semester		**Winter Semester**	
ENG-10000 Writing Lab	0-1	ENG-10403 English Composition II	3
ENG-10303 English Composition I	3	Humanities course	3
MTH-22002 Calculus I	4	POL-10100 Intro to American Government	3
CHE-10101/02 General Chemistry I w/lab	5	EDT-10000 Engineering Graphics	3
	15	MTH-22102 Calculus II	4
			16

Second Year

Fall Semester		**Winter Semester**	
Social Science course	3	Social Science course	3
Humanities course	3	Humanities course	3
MTH-22202 Calculus III	4	CIS-27001 Programming I	4
PHY-22101/02 Physics I w/Calculus & lab	5	PHY-22201/02 Physics II w/Calculus & Lab	5
	15		15

Medical Technology

Nature of the Work: Clinical laboratory testing plays a critical role in the detection, diagnosis, and treatment of disease. Medical technologists perform most of these tests. They examine and analyze body fluids, tissues, and cells. Then they analyze the results and relay them to physicians.

Employment: More than half of jobs were in hospitals. Most of the remaining jobs were in offices of physicians and in medical and diagnostic laboratories. Other employment options are blood banks, research and testing laboratories, and the Federal Government.

Job Outlook: Job opportunities are expected to be excellent, because the number of job openings is expected to continue to exceed the number of job seekers. With the rapid growth in the older population, demand will remain constant. Employment of clinical laboratory workers is expected to grow 14 percent between 2006 and 2016, faster than the average for all occupations. The volume of laboratory tests continues to increase with both population growth and the development of new types of tests

The Program: The program at Kirtland Community College is designed to provide the general education and science courses that are required to transfer to a school of medical technology. Three years of college is a prerequisite for training at an AMA-approved school of medical technology. Students may enroll at KCC for two years and complete the third year at the transfer institution. At least 12 consecutive months must be spent at an approved school of medical technology.

The following is a sample program. You will need to work with your advisor and transfer school to ensure a smooth transition.

First Year

Fall Semester		**Winter Semester**	
ENG-10000 Writing Lab	0-1	ENG 10403 English Composition II	3
ENG-10303 English Composition I	3	POL 10100 Intro to American Government	3
BIO-10100 General Biology	4	Humanities course	3
CHE-10101/02 General Chemistry I w/lab	5	CHE-10201/02 General Chemistry II w/lab	5
MTH-13000 College Algebra	4	BIO-20100 General Zoology	4
Humanities course	3		18
	19-20		

Second Year

Fall Semester		**Winter Semester**	
Social Science course	3	Humanities course	3
BIO-21000 Microbiology		Social Science course	3
Or BIO-11500 Anatomy & Physiology I	4	BIO-20200 General Botany	4
CHE-20101/02 Organic Chemistry I w/lab	5	CHE-20201/02 Organic Chemistry II w/lab	5
PHY-20101/02 Physics I w/Trig & lab	5	PHY-20201/02 Physics II w/Trig & lab	5
	17		20

Medicine

Nature of the Work: Physicians examine patients, obtain medical histories, and order, perform, and interpret diagnostic tests. They diagnose illnesses and prescribe and administer treatment for people suffering from injury or disease. Physicians counsel patients on diet, hygiene, and preventative health care. Those in private practices may handle or oversee the business aspects of running an office. Most MD's specialize in medical, surgical, or other specialties.

Job Outlook: Employment of physicians and surgeons is projected to grow 14 percent from 2006 to 2016, faster than the average for all occupations. Job growth will occur because of continued expansion of health care related industries. The growing and aging population will drive overall growth in the demand for physician services, as consumers continue to demand high levels of care using the latest technologies, diagnostic tests, and therapies.

The Program: The minimum requirement for entry to schools of medicine is three years of college, with most giving preference to those with bachelor's degrees. The program at Kirtland includes the math and science courses necessary for the study of medicine. This program is designed to transfer to universities for bachelor's degree completion.

The following is a sample program. You will need to work with your advisor and transfer school to ensure a smooth transition.

First Year

Fall Semester		**Winter Semester**	
ENG-10000 Writing Lab	0-1	ENG 10403 English Composition II	3
ENG-10303 English Composition I	3	POL 10100 Intro to American Government	3
BIO-10100 General Biology	4	Humanities course	3
CHE-10101/02 General Chemistry I w/lab	5	CHE-10201/02 General Chemistry II w/lab	5
MTH-22002 Calculus I	4	BIO-20100 General Zoology	4
Humanities course	3		18
	19-20		

Second Year

Fall Semester		**Winter Semester**	
Social Science course	3	Humanities course	3
BIO-21000 Microbiology		BIO-20200 General Botany	
Or BIO-11600 Anatomy & Physiology I	4	Or BIO-11600 Anatomy & Physiology II	4
CHE-20101/02 Organic Chemistry I w/lab	5	CHE-20201/02 Organic Chemistry II w/lab	5
PHY-20101 Physics I w/Trig & lab	5	PHY-20201/02 Physics II w/Trig & Lab	5
	17	Social Science course	3
			20

PARTNERSHIPS WITH OTHER INSTITUTIONS

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

Associate in Applied Science

- Medical Laboratory Technician—Ferris State University
- Radiography—Mid Michigan Community College
- Respiratory Care—Ferris State University

Bachelor of Applied Science

- Biometric Security—Davenport University
- Computer Gaming & Simulation—Davenport University
- Computer Information Systems—Davenport University
- Information & Computer Security—Davenport University
- Network Security—Davenport University

Bachelor of Arts

- Elementary Education—Spring Arbor University/Gaylord

Bachelor of Business Administration

- Applied Business—Davenport University
- Business Professional Studies—Davenport University
- Health Information Management—Davenport University
- Health Services Administration—Davenport University
- Human Resource Management—Davenport University
- International Business—Davenport University
- Management—Davenport University
- Management—Northwood University
- Marketing—Davenport University
- Public Safety & Security Management—Davenport University
- Service Management & Marketing—Davenport University
- Sport Management—Davenport University
- Strategic Human Resource Management—Davenport University (BBA/MBA)

Bachelor of Fine Arts

- Fine Arts—College for Creative Studies
- Graphic Design—College for Creative Studies

Bachelor of Science

- Accounting—Franklin University
- Administration/Organization Administration—Central Michigan University (off campus programs)
- Applied Management—Franklin University
- Automotive & Heavy Equipment Management—Ferris State University
- Automotive Engineering Technology—Ferris State University
- Business Administration—Franklin University
- Business Administration—Management—Lake Superior State University
- Business Administration—Marketing—Lake Superior State University
- Business Forensics—Franklin University
- Computer Information Systems—Ferris State University & Saginaw Valley State University
- Computer Science—Central Michigan University
- Computer Science—Franklin University

- Computer Science—Saginaw Valley State University
- Criminal Justice—Madonna University
- Criminal Justice—Kaplan University
- Digital Communication—Franklin University
- Education: Elementary or Secondary—Central Michigan University
- eMarketing—Franklin University
- Engineering Technology—Ferris State University
- Financial Management—Franklin University
- Forensic Accounting—Franklin University
- Healthcare Information Systems Management—Franklin University
- Healthcare Management—Franklin University
- Human Resource Management—Franklin University
- Information Technology—Franklin University
- Management—Franklin University
- Management—Kaplan University
- Management Information Systems (MIS)—Franklin University
- Manufacturing Engineering Technology—Ferris State University
- Marketing—Franklin University
- Medical Case Management—Davenport University
- Networking Technology—Kaplan University
- Nursing—Davenport University (BSN)
- Nursing—Ferris State University (BSN)
- Product Design Engineering Technology—Ferris State University
- Public Safety Management—Franklin University
- Web Development—Franklin University
- Welding Engineering Technology—Ferris State University

Other

- Palmer College of Chiropractic

See information on our partnership programs on the web at
http://kirtland.edu/ss/transferfrom.htm

Transferring FROM Kirtland

http://kirtland.edu/ss/transferfrom.htm

[get info on transferring TO Kirtland]

Remember! When thinking about transferring the question is not

"Will my class transfer?" BUT...

"HOW will my class transfer?

Will this class satisfy a requirement or elective for my desired degree?"

Do you plan to transfer to a four year college or university?

If you are planning on transferring from Kirtland to a four-year college or university, we encourage you to meet with a Kirtland counselor or advisor. The counseling office would have information available regarding transfer and/or articulation agreements. Getting regular advisement from a counselor or faculty advisor will help you complete course requirements for a Kirtland certificate or degree and prepare for transfer to the college or university of your choice. Students desiring an appointment with their faculty advisor should contact their specific department. To meet with a counselor, please call the counseling office at extension 280.

If you are planning to transfer from Kirtland, the following steps will be helpful for a successful transfer:

Check your progress toward transferring
Meet with a KCC counselor/advisor regularly
If planning to use the MACRAO transfer agreement, make sure you are taking the appropriate courses
Check transfer equivalencies for the courses you take at Kirtland
Check for potential articulation agreements available at your transfer college/university

Evaluate colleges
Meet with college representatives when they visit Kirtland
Review the Transfer Questions
Contact the admissions offices at transfer schools and visit the campus
Bring a copy of your transcripts when you visit the campus
Become familiar with the general education requirements for the college/university
Become familiar with the curriculum for your advanced degree

Make a decision
Establish a relationship with the university transfer coordinator
Keep records of your discussions and copies of correspondence you send
Be aware of the cost of attendance and information about your program of study

Apply early
Know your chosen college's application requirements
Apply for Financial Aid, listing each institution in which you are interested on your FAFSA
Inquire about scholarships available to transfer students
Make housing decisions
Attend any orientation sessions that are offered by the transfer college/university

Click on the following links to connect with websites that may be helpful in your transfer process:
Michigan College Mall: A listing of all colleges and universities in the State of Michigan.
Michigan Post Secondary Handbook: A portion of the State of Michigan website that outlines general information and programs of study for all colleges and universities in Michigan.
Michigan Transfer Network: A listing of transfer equivalencies by college/university. If you have a question regarding a specific course equivalency, please contact Kathleen Wray, Assistant Registrar, at wrayk@kirtland.edu.
College/University Links: A listing of colleges and universities with direct links to their home page, transfer student information, transfer equivalencies, programs of study, and transfer & articulation agreements.
The MACRAO Transfer Agreement: A link to the MACRAO website that outlines this agreement and shows any provisions ("provisos") that a particular college/university has declared.

COURSE DESCRIPTIONS

This portion of the 2010-2011 College Catalog lists all courses offered by Kirtland Community College. Courses are separated into their respective subject areas. The following example displays how to properly interpret a course description:

EXAMPLE:

CHE-10000 **Chemical Science** **(F,W)** **4(3-2)**
Course description would be inserted here.
Prerequisite: MTH-07300 **or**
Corequisite: MTH-07300
(Credit Type)

Chemical Science presents the elementary principles of inorganic, physical, and organic chemistry. It is intended to introduce college chemistry, or to satisfy course requirements in technical fields such as nursing. **Prerequisite or corequisite**: MTH-07300.

1. **Course Number**: Composed of three letters and a number. The letters identify a course by subject area. In this case, CHE is for Chemistry.

2. **Course Title**: Identifies a course by name.

3. **Course Availability**: The letter code designates the semester in which the course is usually offered: **S** = Summer; **W** = Winter; **F** = Fall; and **V** = Variable (occasionally or on demand if sufficient enrollment develops).

4. **Credit Hours**: The number of credits a course is assigned toward graduation.

5. **Lecture-Laboratory Hours**: During a 15-week semester, the first number refers to the hours the student will spend per week in a classroom lecture. The second number refers to the instructional hours that a student will spend in a laboratory per week. Some clinical nursing classes list a third number that specifies the number of hours spent in a clinical setting each week. The addition of these figures will produce the total number of contact hours the student will spend per week in the class over a 15-week semester.

6. **Course Description**: An explanation of the knowledge and skills gained by successful completion of the course.

7. **Prerequisite**: Requirement(s) that must be met or course(s) that must be taken before enrolling in a specific course.

8. **Corequisite**: Course that must be taken at the same time as the desired course.

9. **Distribution**: Some programs require courses of a specific distribution type. The category in which a course may be used is listed in italics.

ACCOUNTING (ACC)

ACC 10600 Fund of Accounting (F) 4 (4-0)

This course is a study of the fundamental principles of accounting. Emphasis is placed on the accounting cycle from journal entries to the preparation of financial statements for both the service and merchandising firm, including payroll and accounting for cash.

ACC 12100 Accounting Principles I (F) 4 (4-0)

This course provides an introduction to fundamental accounting principles. The principles are applied to the recording of transactions as assets, liabilities, owner's equity, income and expenses. The recorded transactions are then used in the preparation of financial statements - balance sheet, income statement and statement of owner's equity for sole proprietorships and partnerships. Prerequisite: MTH-07300 or compentency.

ACC 12200 Accounting Principles II (W) 4 (4-0)

This course builds on the fundamental accounting principles taught in Accounting I. The class covers the recording of corporate stock and dividend transactions and the proper presentation of the stockholder's equity section of the balance sheet. The course introduces management accounting concepts through analysis of financial statements, preparation of the statement of cash flows, the introduction to cost accounting concepts and an understanding of the need for and development of budgets. Prerequisite: ACC-12100.

ACC 12500 Computer Accounting w/QuickBooks (W) 4 (4-0)

This course is organized into three sections. The first section introduces students to the computer, Windows, and QuickBooks accounting for a service business. The second section focuses on merchandising businesses. The third section concentrates on payroll and creating a company using QuickBooks. Accounting concepts and their relationship to QuickBooks Pro 2000 are presented in each chapter. In addition to accounting concepts, students use a fictitious company and receive hands-on training in the use of QuickBooks Pro within each chapter.

ACC 13100 Bookkeeping (V) 4 (4-0)

This course provides an understanding of bookkeeping topics that include double-entry bookkeeping, business math, depreciation and inventory methods, payroll and payroll taxes, billing, and internal control. Prerequisite: ACC-10600 or ACC-12100 or permission of the instructor.

ALLIED HEALTH (ALH)

ALH 10101 Medical Terminology (F,W,S) 2 (2-0)

This course is a survey study in the word-building system for medical terms. It covers word roots, combining forms, prefixes, suffixes, and medical word-building and decoding. Emphasis is placed on the correct spelling of terms, as well as definition and usage according to medical specialties. This course can be utilized by students who are planning a health career. Prerequisite: ENG-09601 or competency.

ALH 10400 Nursing Assistant (F,W,S) 6 (3-5)

This course will prepare students to provide competent, evidence-based assistive nursing care in a variety of healthcare settings, with primary focus on the elderly. Emphasis will be placed on effective communication and interpersonal skills; infection control measures; safety and emergency procedures; and the promotion of residents' independence and rights. Successful completion of this course will prepare students to be eligible for the state competency evaluation exam and placement on state Nurse Aide Registry. Prerequisite: ENG-08601 or compentency, Physical Examination, TB Test, Uniform, and clean criminal background.

ALH 10801 Pathology (W) 3 (3-0)

This survey course focuses on basic diseases, components of diagnosis, etiology, common manifestations, and treatment. This course is utilized by students who are planning a health career. Prerequisite: ALH-10101 and BIO-10700 or permission of instructor.

ALH 11201 Medical Ethics & Law (F,W) 1 (1-0)

This course provides an introduction to the health care professional's role, ethical dilemmas faced in the field, and legal responsibilities in individuals' roles and in society.

ALH 20203 Professional CPR (F,W,S) 0.5 (0.25-0.25)

This course provides information and practice for appropriate response in the event of cardiopulmonary emergency event (one-man, two-man, infant, child, AED & choking victim).

ALH 21500 Paramedic I (V) 13 (11-2)

This course provides the foundation for the paramedic program and begins to prepare students to function in emergency medical care within the scope and responsibilities of the paramedic. Hands-on practical skills training is included. Prerequisite or corequisite: Licensed EMT or completion of EMT program and eligible for licensure.

ALH 21701 Basic Emergency Medical Technician (V) 10 (7-7)

This course prepares students to function in emergency medical services within the scope and responsibilities of a Basic EMT. Hands-on skills lab practice and structured clinical experiences at hospital emergency rooms and on ambulances is provided. Prerequisites: MTH-06300 and ENG-09601 or compentency; valid driver's license, no felony convictions, completed health form, and immunizations prior to clinical.

ALH 22500 Paramedic II (V) 13 (9-8)

This course is the second part of the paramedic program. Hands-on practical skills training is included. Prerequisite: ALH-21500.

ALH 23500 Paramedic III (V) 16 (11-11)

This course is the third part of the paramedic program. It provides structured clinical experience in pre-hospital and hospital settings. Prerequisite: ALH-22500.

ALH 24500 Paramedic IV (V) 7 (0-7)

This course is the fourth part of the paramedic program. Further theory, hands-on training, and structured clinical experiences are included. Prerequisite: ALH-23500.

ART (ART)

ART 10000 Art History I (F) 3 (3-0)

This course surveys the major developments, movements, and philosophies of the visual arts from the Prehistoric to the Renaissance period by means of lecture, slides, and videos. (Humanities Credit)

ART 10103 Art History II (W) 3 (3-0)

This course provides a survey of the major developments, movements, and philosophies of the visual arts from the Renaissance period to the present, by means of lecture, slides, and videos. (Humanities Credit)

ART 10500 Intro to Design (F,W) 3 (0-4)

In this course, students will gain an understanding of the relationships between shape, form, pattern, texture, and color. By using computers, the student will create compositions dealing with biomorphic and rectilinear shapes. This course is intended to give the student a basic knowledge of the principles of composition and the elements of design and the role they play in the creative process. (Humanities Credit)

ART 10600 Fund of Drawing I (F,W) 3 (0-4)

This course will stress the process of drawing as an imitation of nature through eye-hand coordination. Drawings are generated exclusively from still lifes as subject matter. Emphasis is on linear construction with a concern for accurate proportion and simple positive-negative/figure-ground relationships. Value structure is introduced after an initial but solid understanding of sighting and measuring, composition, and spatial relationships has been developed. Media is limited to achromatic/monochromatic dry drawing materials. (Humanities Credit)

ART 10700 Painting I (F,W) 3 (0-4)

This course will stress the process of painting as an imitation of nature through eye-hand coordination. Paintings are generated from photographs and still lifes (observed objects) as subject matter. Emphasis is on the exploration of techniques with a concern for accurate proportion, simple positive-negative/figure-ground relationships, and color dynamics. Technical realism is introduced after an initial but solid understanding of color theory, compositions, and spatial relations has been developed. Media is limited to full-spectral wet oil materials. (Humanities Credit)

ART 10800 Ceramics I (F,W,S) 3 (0-4)

This course provides an introduction to clay and its characteristics as a creative medium in utilitarian and non-utilitarian forms through hand-built and wheel-thrown objects. (Humanities Credit)

ART 11000 Watercolors (S) 3 (0-4)

This course will stress the process of painting as an imitation of nature through eye-hand coordination. Paintings are generated from photographs and still lifes (observed objects) as subject matter. Emphasis is on the exploration of techniques with a concern for accurate proportion, simple positive-negative/figure-ground relationships, and color dynamics. Technical realism is introduced after an initial but solid understanding of color theory, compositions, and spatial relations has been developed. Media is limited to full-spectral wet watercolor materials. (Humanities Credit)

ART 11400 Sculpture I (F,W) 3 (0-4)

Students will explore the processes and materials of sculpture (clay, stone, wood, plaster, metals, and other media) with an emphasis on the concepts of three-dimensional form and space. (Humanities Credit)

ART 11500 Photography I (F,W) 3 (2-2)

This course offers an introduction to the basic technical skills of photography as a creative medium for personal expression. Students must provide a 35mm camera. (Humanities Credit)

ART 17000 Graphic Studio (W) 3 (1-3)

This course is an introduction to the computer as a design tool using industry standards in page layout and digital software.

ART 19000 Digital Communications (F,W) 3 (1-3)

The study of fundamental design concepts and elements as they are applied to digital media. Students will create digitally manipulated images using various imaging techniques for print media as it relates to their major area of study. (Humanities Credit)

ART 20600 Drawing II (F,W) 3 (0-4)

This course stresses the process of drawing as an imitation of nature through eye-hand coordination. Drawings are generated from still life and photographs as subject matter. In Drawing I, emphasis is on linear construction with a concern for accurate proportion and simple positive-negative/figure-ground relationships. Emphasis in Drawing II is on value structure and the development of the realistic rendering techniques. Students should show a concentration in experimental media, techniques, spatial relationships, and conceptual processes of drawing. Prerequisite: ART-10600. (Humanities Credit)

ART 20700 Painting II (F,W) 3 (0-4)

Painting II will continue to stress the process of painting as an imitation of nature through eye-hand coordination. Paintings are generated from photographs and still lifes as subject matter. Students embark on a wider exploration of techniques with a concern for accurate proportion, simple positive-negative/figure-ground relationships, and color dynamics. Technical realism is one approach used to develop a continuing understanding of color theory, composition, and spatial relationships. Emphasis is on the student's personal development and refinement of personal expression. Media is limited to full-spectral wet oil materials. Prerequisite: ART-10700. (Humanities Credit)

ART 20800 Ceramics II (F,W,S) 3 (0-4)

This course offers advanced study of forms in clay with emphasis on wheel-thrown objects, glaze calculations, and kiln procedures. Prerequisite: ART-10800. (Humanities Credit)

ART 21400 Sculpture II (F,W) 3 (0-4)

Students will be exposed to a broad variety of materials and techniques. Greater emphasis will be placed on scale and style. Prerequisite: ART-11400. (Humanities Credit)

ART 21500 Photography II (F,W) 3 (2-2)

This course provides creative work for the advanced student in developing a photography portfolio. This course will expand upon the techniques and skills learned in Photography I. Students will explore a variety of films and specialized processing techniques, as well as creative darkroom printing procedures. Students must provide a 35mm camera. Prerequisite: ART-11500. (Humanities Credit)

ART 22400 Advanced Sculpture I (F,W) 3 (0-4)

This course will allow students to intensify their studies of techniques briefly touched on in Sculpture I and II. Each student will be encouraged to explore how personal issues influence the development of his/her own style. Prerequisite: ART-21400. (Humanities Credit)

ART 22500 Intro to Color Photography (F,W) 3 (0-4)

By using color transparency film, computers, and/or color negative film, students will explore the use of color as a compositional element in photography. Prerequisite: ART-11500. (Humanities Credit)

ART 23400 Advanced Sculpture II (F,W) 3 (0-4)

During this course, students will pursue their own particular interests. Students will be encouraged to experiment with different media and ideas. Prerequisite: ART-22400. (Humanities Credit)

ART 25000 Illustration I (F,W) 3 (1-3)

This is an introductory course in the basic black, white, and color media illustration techniques with exploration in figurative drawing, media techniques, color and composition, spatial relationships, and conceptual progress of page layout. Illustration I will utilize the knowledge gained in Fundamentals of Drawing I to produce artwork that tells a story or expresses an idea. Artwork is generated by the media available to the student that best fits the idea, such as graphite, charcoal, ink, digital, photography, paint, colored pencil, etc. The ultimate goal in illustration is to create work that can be used for publication, whether magazine, book, brochure, etc. Prerequisite: ART-10600. (Humanities Credit)

ART 26000 Illustration II (F,W) 3 (1-3)

Emphasis will be placed on the exploration of color media and processes within specific illustration assignments. Problem-solving is encouraged through creative investigation. Prerequisite: ART-25000. (Humanities Credit)

ART 27504 Advanced Drawing (F,W) 3 (1-3)

This course continues the elements of Drawing II and emphasizes independent problem-solving, refinement of technical skills and the development of conceptualization processes. (Humanities Credit)

ART 27514 Welded Sculpture I (F,W) 3 (1-3)

Welded Sculpture will deal with metal as a sculptural medium. Students will use various joining techniques such as gas welding, brazing, wire welding and stick welding. In addition to the different welding processes, each student will need to learn how to use other machines that form the metal that you will be working with.

ART 27531 Rendering (F,W) 3 (1-3)

Course description not currently available. Please contact instructor for more information.

ART 27532 Photo Studio Problems (F,W) 3 (1-3)

Course description not currently available. Please contact instructor for more information.

ART 27533 Watercolors II (S) 3 (1-3)

An advanced course in the basic painting sequence, Watercolors II will continue to stress the process of painting as an imitation of nature through eye-hand coordination. Students embark on a wider exploration of techniques with a concern for accurate proportions, simple positive-negative/figure-ground relationships, and color dynamics. Technical realism is one approach to create with a continuing understanding of color theory, composition, and spatial relationships. Emphasis is on the student's personal development and refinement of personal expression. Media is limited to full-spectral watercolor materials. Prerequisite: ART-11000 (Humanities Credit)

ART 27545 Computer Generated Images I (F,W) 3 (1-3)

In this course, students will learn the fundamental concepts and features of Adobe Photoshop. These concepts include photo editing and retouching, color correction, layer basics, and special effects. (Humanities Credit)

ART 27546 Computer Generated Images II (F,W) 3 (1-3)

Building on the techniques learned in Computer Generated Images I, this course teaches advanced techniques used by professional graphic artists and photographers. Prerequisite: ART-27545. (Humanities Credit)

ART 27550 Digital Darkroom (F,W) 3 (1-3)

Through the use of conventional cameras/processes and their digital counterparts, students will learn to scan, edit, manipulate, and print photographic images. (Humanities Credit)

ART 27553 Adv Black & White Photography (F,W) 3 (1-3)

Students will draw on skills acquired in Photography I and II to develop and polish a personal style. Assignments will be developed to aid the student in pursuing their own unique goals. Prerequisite: ART-21500. (Humanities Credit)

ART 27565 Comic Book Illustration (F,W) 3 (1-3)

This course provides a basic introduction to comic book illustration, with exploration in figure drawing, media, techniques, spatial relationships, and the conceptual progress of page layout. (Humanities Credit)

ART 27566 Computer Generated Images III (F,W) 3 (1-3)

Building on the fundamentals learned in Computer Generated Images I and Computer Generated Images II, this course explores the advanced type techniques and effects, layout, and design. Prerequisite: ART-27546. (Humanities Credit)

ART 27571 Computer Animation I (F,W) 3 (1-3)

Computer Animation I is an introductory study of the three-dimensional computer images and animation. The class will use 3D Studio to create three-dimensional imagery, apply texture maps, and lighting effects. Several animation techniques will also be studied. Students will meet in small groups to discuss lessons and activities. (Humanities Credit)

ART 27573 Computer Animation II (F,W) 3 (1-3)

This course further develops the student's skill in 3D Studio Max. It will emphasize 'realistic' rendering by means of developing the student's conceptual and technical understanding of effective texture and lighting.

ART 27575 DS-Computer Animation III (F,W) 3 (1-3)

This course focuses on advanced techniques for animators. Both classical animation and new digital skills and techniques will be covered with an emphasis on the situations that are best suited for the student's ultimate goal in their work.

ART 27578 Computer Generated Images IV (F,W) 3 (1-3)

This course continues the exploration of advanced type techniques and effects, layout, & design. Prerequisite: ART-27566 (Humanities Credit)

ART 27581 Children's Book Illustration (F,W) 3 (1-3)

This course provides a basic introduction to aesthetic principles, including color and composition, through a variety of materials, with emphasis on media and techniques for children's storybooks. (Humanities Credit)

ART 27587 Painting IV (F,W) 3 (1-3)

Emphasis will be placed on the student's ability to develop ideas, themes, and motifs of personal significance and the formal, technical skills to successfully execute his/her work. The course will also examine important theoretical and aesthetic issues related to art and will review major figures in contemporary painting. Prerequisite: ART-21600. (Humanities Credit)

ART 27590 Watercolors III (S) 3 (1-3)

An advanced course in the painting sequence, Watercolors III will emphasize individual development and refinement of personal expression in various approaches to painting. Students embark on a wider exploration of techniques with concern for accurate proportions, positive-negative/figure-ground relationships, and color dynamics while finding the artist within. Realism is only one approach to creating with a continuing understanding of color theory, composition, and spatial relationships. Prerequisite: ART-27533. (Humanities Credit)

ART 27598 Portfolio II (F,W) 3 (1-3)

This course continues the elements of Portfolio to develop a unified body of work.

ART 27611 Rendering II (F,W) 3 (1-3)

This course continues the elements of Rendering in superrealism. (Humanities Credit)

ART 28000 Portfolio (F,W) 3 (3-1)

This is an advanced course in portfolio preparation. It will stress the process of preparing an intensive portfolio for the artist's market. Résumés and artist's statements are written to develop an initial but solid understanding of the artist's work.

ASTRONOMY (AST)

AST 10201 Astronomy I Lecture (F) 3 (0-3)

Introductory course studying Astronomy and related sciences. Covering topics of solar/stellar structure and evolution, and cosmology. Prerequisite: MTH-07300. Corequisites: MTH-12000 and AST-10202. (Science credit)

AST 10202 Astronomy I Laboratory (F) 1 (0-2)

Introducing the techniques for mapping and measuring of the physical universe, and become familiar with the night and day skies. Develop understanding of the mechanisms of the universe. Corequisite: AST-10201. (Science credit)

AUTOMOTIVE (AUT)

AUT 16100 Engine Fundamentals & Overhaul (W) 4 (3-3)

This course provides an introduction to design, operation, troubleshooting, and service procedures of modern gasoline engines. The student will participate in disassembly, measurement, inspection, and reassembly of engine components. Use of technical data and service procedures will be stressed. Prerequisite: AUT-16302 or instructor's permission.

AUT 16201 Fuel Systems & Emission Control (W) 4 (3-3)

This lecture/lab course is designed to provide instruction in fundamentals, construction, operation, troubleshooting, and servicing of the components of the fuel and emission control systems. Students will participate in disassembly and reassembly of components and fuel systems and in emission control testing. Prerequisite: AUT-16401 or instructor's permission.

AUT 16302 Automotive Fundamentals (F) 4 (2-3)

This is a lecture/lab course designed to familiarize the student with the automotive unit, design, production, operating, testing, servicing, and job opportunities. Technician certification will be covered on the state and national levels. General ethics at school, on and off the job, along with sexual harassment education, will also be addressed.

AUT 16401 Basic Electricity (F) 3 (2-2)

This electrical course is designed as a prerequisite for automotive electrical classes. Areas of instruction will cover basic electricity, magnetism, fundamentals of batteries, starting motors, charging systems, ignition systems, electrical accessories, and basic wiring. Prerequisite: MTH-06300.

AUT 16801 Automotive Electrical Systems (W) 4 (3-3)

In this course, students will develop technical knowledge and skills necessary to service and diagnose modern electrical systems. Emphasis will be placed on electrical testing techniques and use of electrical testing equipment. Instruction and lab work will cover chassis wiring, electrical accessories, batteries, starters, charging systems, and ignition system service. Prerequisite: AUT-16401 or instructor's permission.

AUT 17200 Intro to Diesel Service (F) 4 (3-3)

This lecture/lab course is designed to teach students teh fundamentals of Diesel Technology. The curriculum is currently geared toward instructing in the repair and maintenance of diesel engine powered vehicles (cars and light duty trucks) including preventative maintenance techniques; diagnosing/troubleshooting; assembly/disassembly of engines, electronic fuel systems, power trains; diagnostic and other essential skills to perform required tasks. Crossover opportunities exist in the automotive, passenger car and truck technician field for those who complete diesel technician training. Prerequisite: AUT-16302 or instructor's permission.

AUT 17703 Automotive Braking Systems (F) 4 (3-3)

This course is designed to provide instruction and skill development in automotive brake system theory and service. Students will develop skills and technical knowledge in the evolution of operation, theory, diagnosis, and repair of conventional and modern computer-controlled anti-lock braking systems. Corequisite: AUT-16302 or instructor's permission.

AUT 19100 Auto Body Internship I (F) 5 (0-5)

This is the first in a sequence of two courses required for completion of the Auto Body Specialist certificate program. The student is trained at an appropriate work site in the community. A tailored training plan for the student is designed by the program coordinator and is administered at the work site. Monitoring and evaluation of the student's progress is performed on a regular basis by the supervisor at the work site and the program coordinator. Prerequisite: Admission to Auto Body internship program. Corerequisite: 8-9 credits of appropriate electives and instructor permission.

AUT 19200 Auto Body Intership II (W) 5 (0-5)

This is the second in a sequence of two courses required for completion for the Auto Body Specialist program. The students receives advanced training at an appropriate work site in the community in accordance with the same requirements as AUT-19100. Prerequisite: Successful completion of AUT-19100 and instructor permission.

AUT 20402 Intro to Auto Service Management (W) 2 (2-0)

This course is a study of facility licensing and management, with coverage of customer relations, promotional techniques, ethics, sexual harassment issues, job-seeking skills, and the laws of the State of Michigan as they apply to the automotive repair industry. The subjects of warranty processing, expense control, productivity, and time labor standards are defined and studied. Employee compensation and incentives, along with job opportunities and classifications, are also discussed and identified. Prerequisite: AUT-16302 or instructor permission.

AUT 21800 Automatic Transmissions (F) 4 (2-4)

In this lecture/lab course, students are prepared to service, diagnose, and overhaul commonly used automatic transmissions and transaxles. Emphasis will be placed on principles of operation, model variations, servicing techniques, and troubleshooting procedures. Prerequisite: AUT-16302 or instructor's permission.

AUT 23101 Auto Service Area-Chassis (W) 4 (0-6)

This is a specialty service lab for students pursuing the Chassis Specialist certificate. Prerequisites: AUT-16201, AUT-16302, and AUT-17703. Corequisite: AUT-26500.

AUT 23102 Auto Service Area-Powertrain (W) 4 (0-6)

This is a specialty service lab for students pursuing the Powertrain Specialist certificate. Prerequisites: AUT-17703 and AUT-27900. Corequisite: AUT-16100.

AUT 23103 Auto Service Area-Electrical (W) 4 (0-6)

This is a specialty service lab for students pursuing the Electrical Specialist certificate. Prerequisites: AUT-16201, AUT-16302, AUT-16401, AUT-16801, and AUT-26601.

AUT 23104 Automotive Internship (W) 5 (0-5)

This internship offers supervised automotive repair experience at a selected automotive repair facility. Students accomplish the course objectives while employed in the automotive industry. This course is required for completion of the associate in applied science, and the master certificate program. Prerequisites: successful completion of automotive program curriculum. The student will complete a minimum 180 hours in this course. Corequisite: AUT-27900 or instructor permission.

AUT 26500 Steering Suspension & Alignment (F) 4 (3-3)

This is a lecture/lab course covering nomenclature and operating principles of steering and suspension systems. Emphasis is on skill development in servicing power steering systems, replacement of suspension components, and four-wheel alignment. Prerequisite: AUT-16302 and AUT-17703 or instructor's permission.

AUT 26601 Gas Engine Performance/Diagnostics (F) 4 (3-3)

Through the study of theory and use of testing and diagnosis procedures for computerized engine controls, the student will develop the skills required of a diagnostic tune-up technician. Prerequisites: successful completion of first and second semester of automotive curriculum or instructor's permission and AUT-16201, AUT-16302, AUT-16401, and AUT-16801.

AUT 26700 Diesel Eng Performance & Diagnostic (W) 4 (3-3)

This is a lecture/lab course designed to teach students performance and diagnostic procedures on modern passenger car and light duty truck diesel engines. Differences between diesel engine diagnositcs and gasoline engines will be covered in great detail. Combustion chamber, fuel, cooling, and lubrication system designs are discussed. Maintenance requirements due to low sulfur fuel, particulate traps, air filter service and new engine oil configurations are all covered. Prerequisite: AUT-17200 or instructor's permission.

AUT 27000 Heating & Air Conditioning (F) 3 (2-2)

In this basic refrigeration and air conditioning course, students will gain skills in refrigeration tools and materials, basic refrigeration systems, compressors, refrigerant controls, electric circuit controls, refrigerants testing, and repair of air conditioning units. Prerequisite: AUT-16302 or instructor's permission.

AUT 27900 Manual Trans Drivelines/Rear Axles (W) 4 (3-3)

This is a lecture/lab course in the function, construction, operation, servicing, and troubleshooting of conventional power transmission components used in passenger cars and light trucks; clutch, manual transmission/transaxel, propeller shafts, universal joints, and rear axles. The student is given experience in disassembly and reassembly of component parts. Prerequisite: AUT-16302 or instructor permission.

BIOLOGY (BIO)

BIO 10100 General Biology (F,W) 4 (3-2)

This is a lecture and laboratory course in the basic principles of life science; genetics, origin, and evolution of life, structure, function, and classification of organisms and interactions in the ecosystem are stressed. (Science Credit)

BIO 10700 Essentials of Anatomy & Physiology (F,W,S) 4 (3-2)

This course provides an abbreviated study of the gross and microscopic structures and functions of the systems, organs, and tissues of the human body. Terminology and common pathologies of each system will be introduced. This course includes two hours of laboratory.

BIO 20100 General Zoology (F) 4 (3-2)

This course provides a lecture/laboratory survey of the major animal groups including internal and external structure; reproductive processes; behavior patterns; life history; and special features peculiar to each group. Some field work in identification of local animals is included. Prerequisite: BIO-10100 or permission of instructor. (Science Credit)

BIO 20200 General Botany (V) 4 (3-2)

This is a survey course in plant morphology. The structure, classification, and natural history of major plant groups is stressed, as well as extensive field work in the collection and identification of local plant species. (Science Credit)

BIO 21000 Microbiology (F) 4 (3-2)

This course provides a lecture/laboratory study of the major groups of microbes. The structure of the unicellular organism will be compared to the structure of multicellular organisms. Applications to medicine and ecology will be discussed. The course is designed for the liberal arts student as well as the health sciences student. Prerequisites: CHE-10000 and BIO-10100 OR BIO-23500 and BIO-23600, or permission of instructor. (Science Credit)

BIO 21300 Nature Study (F,W,S) 4 (3-2)

A lecture/laboratory and field course in the behavior, ecology, and classification of plants and animals, including recognition of local flora and fauna, the course is designed to give natural history background material to the liberal arts non-science major, to the non-specialists interested in outdoor life, to those interested in nature interpretation, and to elementary school teachers. (Science Credit)

BIO 23500 Anatomy & Physiology I (F,W) 4

The first of a two-semester sequence, the first semester covers the nature of life science, organization of the human body, cell chemistry and metabolism, the integumentary system, histology, the skeletal and muscular systems, and the nervous system. Prerequisite: high school chemistry with a minimum grade of "B" or CHE-10000 with a minimum grade of "C" or better in each. Students must have taken chemistry course within the past 10 years. (Science Credit, except for Associate in Science)

BIO 23600 Anatomy & Physiology II (F,W,S) 4

This is a continuation of BIO-23500 with emphasis on the sensory system, endocrine system, cardiovascular system, respiratory system, digestive system, urinary system, and reproductive system with an introduction to genetics. The course will conclude with a study of pregnancy and human growth and development. Prerequisite: BIO-23500 and High School Chemistry with a minimum grade of "B"; or permission of instructor. (Science Credit, except Associate in Science)

BIO 23700 Pathophysiology (F,W,S) 3 (3-0)

Content of this course will examine the mechanism underlying disease processes and the subsequent adaptation and alterations in body function. Selective health problems will be emphasized throughout the course. Clinical application will be made in concurrent and subsequent nursing courses. Prerequisites: ALH-10101 and BIO-23600. (Science Credit, except for Associate in Science)

BUSINESS & MARKETING (BUS)

BUS 10100 Intro to Business (F,W,S) 3 (3-0)

This course provides an orientation to characteristics and functions of business, business environment, opportunities, ownership, management, organization, marketing, physical plant, personnel, finance, ethics, law, and controls for decision making.

BUS 201-- Internship in Business & Marketing (F,W,S) 3-9

This course is designed to provide students with an opportunity to earn credit while obtaining meaningful discipline-related work experience outside the classroom setting. Students are expected to spend a minimum of 128 hours (3 credits) in an appropriate work setting. The course may be repeated for a maximum of nine credits. Prerequisite: 2.5 GPA, sophomore standing, employer and instructor approval, and submission to, and approval by, business department.

BUS 20200 Grant Writing (V) 3 (3-0)

This course is designed to give students experience in the research, writing, and planning skills involved in preparing grants. Emphasis is placed on writing grants for nonprofits.

BUS 21000 Prin of Management (W) 3 (3-0)

This course examines management as a basic process of organizing, directing, actualizing, and controlling the operation of a business enterprise. .

BUS 21100 E-Commerce Management (W) 3 (3-0)

This course examines and integrates the three elements that are crucial to the success of any e-commerce operation, those being, internet technology, business models and marketing. It addresses how companies are using the Internet to add value using the six-C framework of commerce, content, communication, connectivity, community, and computing. E-commerce management rests on three pillars - Internet and related technologies, business models, and marketing. Future managers learn how the Internet and the Web are organized, how sites can be located and how sites relate to one another. Managers then learn how these technologies affect business variables such as sales, costs, revenues and marketing.

BUS 21500 Legal Environment of Business (F,W) 3 (3-0)

This course provides an introduction to the legal environment as it relates to business and society, to provide the student with a basic understanding of law as it pertains to business operations and their relationships with society.

BUS 24000 Financial Management (W) 3 (3-0)

This course is designed to provide a basic foundation in the major areas of finance, providing the necessary background for courses in business finance, financial management, monetary theory, banking problems, public finance, agricultural finance, security markets, and related courses. Prerequisite: ACC-12200 or permission of instructor.

BUS 24500 Personnel Management (F) 3 (3-0)

The object of this course is to acquaint students with the problems of personnel management. Personnel problems that deal directly with departmental organization, employment procedures, methods of testing, occupational descriptions, job evaluations, merit rating, wage plans, wage and salary control, aids to employees, safety, health and recreation, and employer-employee relations are covered.

CAREER & PERSONAL DEVELOPMENT (CAR)

CAR 09300 Study Skills (V) 1

This course will assess students' study habits. Students will learn note-taking, test-taking, memory improvement, time management, and how to reduce anxiety. Students will explore college life and methods to cope with it through group counseling activities.

CAR 10201 College Survival and Success I (F,W,S) 1 (1-0)

This course introduces skills necessary for early survival and success in college. It focuses on personal development, learning style analysis, time management, goal setting, and a thorough overview and orientation of Kirtland Community College programs, services, and resources.

CAR 10202 College Survival and Success II (F,W,S) 1 (1-0)

This course is designed to provide students with the opportunity to cultivate the academic skills necessary to become confident and capable learners. Students complete the college student inventory and discuss strategies. Topics include effective listening and reading strategies, concentration and memory, note taking, and test taking strategies.

CAR 10203 College Survival and Success III (F,W,S) 1 (1-0)

This course focuses on higher order skills such as creative and critical thinking, decision making, and communication. It also examines wealth and stress management and assists students in identifying career goals.

CAR 10204 College Success and Survival (F,W,S) 3 (3-0)

This course is designed to provide students with the opportunity to cultivate the skills, values, and attitudes necessary to become capable and confident learners. It introduces students to college resources, programs, and services and assists students in identifying career goals.

CAR 10300 Career Development Skills (F,W) 1 (1-0)

Career development skills are those abilities that allow students to be successful in all aspects of their careers. This course teaches career exploration, job search, employment correspondence, and interview and employability skills. Life skills such as time management, communications, and working cooperatively are emphasized. Students will engage in written, oral, and interpersonal activities to learn and demonstrate workplace skills.

CAR 12600 Service Learning Lab (V) 1 (99-99)

A service-learning project designed by an instructor to supplement course learning, this may be offered either as a required or optional lab.

CAR 200-- Service Learning Project (V) 1-5

An individual service-learning project will be designed under the supervision of the coordinator of service learning and appropriate faculty members. The student will design a community placement as the basis for academic learning. Prerequisite: permission of the service learning advisory committee.

CARPENTRY (CPT)

CPT 10100 Orientation to the Trade (F,W,S) 0.1

Reviews the history of the trade, describes the apprentice program, identifies career opportunities for carpentry and construction workers, and lists the responsibilities and characteristics a worker should possess (Replaces CPT-10007).

CPT 10101 Build Materials Fasteners/Adhesives (F,W,S) 0.3

Provides an overview of the building materials used in construction work, including lumber, sheet materials, engineered wood products, structural concrete, and structural steel. Also describes the various fasteners and adhesives used in construction work (Replaces CPT-10008).

CPT 10102 Hand & Power Tools (F,W,S) 0.4

Provides detailed descriptions of the hand tools and portable power tools used by carpenters. Emphasis is on safe and proper operation of tools, as well as care and maintenance (Replaces CPT-10009).

CPT 10103 Reading Plans & Elevations (F,W,S) 0.8

Builds upon the basic information presented in the Introduction to Blueprints module studied in the Core Curriculum. Trainees will learn the techniques for reading and using blueprints and specifications with an emphasis placed on those drawings and types of information that are relevant to the carpentry trade. Introduces the subject of quantity takeoffs (Replaces CPT-10014).

CPT 10104 Floor Systems (F,W,S) 1

Covers framing basics as well as the procedures for laying out and constructing a wood floor using common lumber as well as engineered building materials (Replaces CPT-10010).

CPT 10105 Wall and Ceiling Framing (F,W,S) 0.8

Describes the procedures for laying out and framing walls and ceilings, including roughing-in door and window openings, constructing corners and partition Ts, bracing walls and ceilings, and applying sheathing (Replaces CPT-10011).

CPT 10106 Roof Framing (F,W,S) 1.5

Describes the various kinds of roofs and contains instructions for laying out rafters for gable roofs, hip roofs, and valley intersections. Coverage includes both stick-built and truss-built roofs (Replaces CPT-10012).

CPT 10107 Intro to Concrete/Reinforce Mat (F,W,S) 0.2

Describes the ingredients of concrete, discusses the various types of concrete, and describes how to mix concrete. The module also covers basic job-built footing, edge, and wall forms and form ties and describes the types and uses of concrete reinforcing materials (Replaces CPT-10016).

CPT 10108 Windows and Exterior Doors (F,W,S) 0.5

Describes the various types of windows, skylights, and exterior doors, and provides instructions for installing them. Also includes instructions for installing weather-stripping and locksets (Replaces CPT-10013).

CPT 10109 Basic Stair Layout (F,W,S) 0.5

Introduces the trainee to the various types of stairs and the common building code requirements related to stairs. The module focuses on the techniques for measuring and calculating rise, run, and stairwell openings, laying out stringers, and fabricating basic stairways (Replaces CPT-20026).

CPT 10200 Roofing Applications (F,W,S) 1

Covers the common materials used in residential and light commercial roofing, along with the safety practices and application methods for these materials. Includes shingles, roll roofing, shakes, tiles, metal, and membrane roofs, as well as the selection and installation of roof vents (Replaces CPT-20024).

CPT 10201 Thermal and Moisture Protection (F,W,S) 0.3

Covers the selection and installation of various types of insulating materials in walls, floors, and attics. Also covers the uses and installation practices for vapor barriers and waterproofing materials (Replaces CPT-20025).

CPT 10202 Exterior Finish (F,W,S) 1.4

Covers the various types of exterior siding used in residential construction and their installation procedures, including wood, metal, vinyl, and cement board siding (Replaces CPT-20023).

CPT 10203 Cold-Formed Steel Framing (F,W,S) 0.6

Describes the types and grades of steel framing materials and includes instructions for selecting and installing metal framing for interior walls, exterior nonbearing walls, and partitions (Replaces CPT-20027).

CPT 10204 Drywall Installation (F,W,S) 0.6

Describes the various types of gypsum drywall, their uses, and the fastening devices and methods used to install them. Contains detailed instructions for installing drywall on walls and ceilings using nails, drywall screws, and adhesives. Also covers fire- and sound-rated walls (Replaces CPT-20028).

CPT 10205 Drywalll Finishing (F,W,S) 0.5

Covers the materials, tools, and methods used to finish and patch gypsum drywall. Includes coverage of both automatic and manual taping and finishing tools (Replaces CPT-20029).

CPT 10206 Doors and Door Hardware (F,W,S) 0.8

Covers the installation of metal doors and related hardware in steel-framed, wood-framed, and masonry walls, along with their related hardware, such as locksets and door closers. Also covers the installation of wooden doors, folding doors, and pocket doors (Replaces CPT-20030).

CPT 10207 Window, Door, Floor, & Ceiling Trim (F,W,S) 1

Covers the different types of trim used in finish work. Focuses on the proper methods for selecting, cutting, and fastening trim to provide a professional finished appearance (Replaces CPT-20032).

CPT 10208 Cabinet Installation (F,W,S) 0.4

Provides detailed instructions for the selection and installation of base and wall cabinets and countertops (Replaces CPT-20033).

CPT 10209 Cabinet Fabrication (F,W,S) 0.4

Provides an introduction to the materials, tools, and methods used in cabinetmaking. Practice projects help the trainee learn the various joining techniques, while providing practice on stationary power tools.

CPT 10210 Suspended Ceilings (F,W,S) 0.6

Includes the materials, layout, and installation procedures for many types of suspended ceilings used in commercial construction, as well as ceiling tiles, drywall suspension systems, and pan-type ceilings (Replaces CPT-20031).

CPT 10211 Commercial Drawings (F,W,S) 1

Describes the types and uses of drawings prepared for commercial structures. Provides information about the format and content of commercial drawings and their use in conveying specific construction requirements. Describes the standard format for specifications.

CPT 20300 Rigging Equipment (F,W,S) 0.4

Describes the use and inspection of basic equipment and hardware used in rigging, including slings, wire rope, chains, and attaching hardware such as shackles, eyebolts, and hooks, as well as rigging knots. Explains sling angles. Also covers tuggers, jacks, hoists, and come-alongs.

CPT 20301 Rigging Practices (F,W,S) 0.6

Describes basic rigging and crane hazards and related safety procedures, provides an overview of personnel lifting and lift planning, and introduces crane load charts and load balancing. Includes instructions for rigging and lifting pipe.

CPT 20302 Properties of Concrete (F,W,S) 0.4

Describes the properties, characteristics, and uses of cement, aggregates, and other materials that, when mixed together, form different types of concrete. Covers procedures for estimating concrete volume and testing freshly mixed concrete, as well as methods and materials for curing concrete.

CPT 20303 Reinforcing Concrete (F,W,S) 0.6

Explains the selection and uses of different types of reinforcing materials. Describes requirements for cutting, bending, splicing, and tying reinforcing steel and the placement of steel in footings, columns, walls, and slabs (Replaces CPT-10019).

CPT 20304 Handling and Placing Concrete (F,W,S) 0.9

Covers tools, equipment, and procedures for handling, placing, and finishing concrete. Also covers joints made in concrete structures, the use of joint sealants, and form removal procedures. Emphasizes safety procedures for handling, placing, and finishing concrete (Replaces CPT-10020).

CPT 20305 Trenching and Excavating (F,W,S) 0.4

Prepares the trainee for working in and around excavations, particularly in preparing building foundations. It covers types and bearing capacities of soils; procedures used in shoring, sloping, and shielding trenches and excavations; trenching safety requirements, including recognition of unsafe conditions; and mitigation of groundwater and rock when excavating foundations.

CPT 20306 Foundations and Slab-on-grade (F,W,S) 0.8

Covers basic site layout tools and methods; layout and construction of deep and shallow foundations; layout and forming of slabs-on-grade; and forms used for curbing and paving (Replaces CPT-10017).

CPT 20307 Vertical Formwork (F,W,S) 1.1

Covers the applications and construction methods for various types of forming and form hardware systems for walls, columns, and stairs, as well as slip forms, climing forms, and shaft forms. The module also provides an overview of the assembly, erection, and stripping of gang forms.

CPT 20308 Horizontal Formwork (F,W,S) 0.6

Covers the types of elevated decks and the formwork systems and methods used in their construction. It covers joist, pan, metal deck, and flat slab systems and provides instructions for the use of flying forms, as well as shoring and reshoring systems.

CPT 20309 Tilt-up Wall Panels (F,W,S) 0.8

Describes how tilt-up concrete construction is used and how tilt-up panels are formed, erected, and braced. It covers the installation of rebar and the types of embedment's used to lift and brace the panels. Methods used to achieve architectural and decorative finishes are also covered.

CPT 20400 Site Layout I: Dist Meas/Leveling (F,W,S) 0.9

Covers the equipment, principles, and methods used to perform distance measurement and leveling. Also covers the layout responsibilities of surveyors, field engineers, and carpenters; interpretation and use of site/plot plan drawings; and methods used for on-site communication (Replaces CPT-10015).

CPT 20401 Site Layout II: Angular Measurement (F,W,S) 1.2

Covers the principles, equipment, and methods used to perform site layout tasks that require making angular measurements. Tasks include laying out building foundation lines and determining elevations by trigonometric leveling. The use of laser instruments, transits, theodolites, electronic distance measurement, and total stations are covered. Reviews trade mathematics, including geometry and right-angle trigonometry, needed to perform the calculations related to angular measurements (Replaces CPT-20034).

CPT 20402 Advanced Roof Systems (F,W,S) 0.5

Covers commercial roofing materials and structures and describes the procedures for installing commercial roofing such as standing seam, lap seam, and built-up roofs (Replaces CPT-20035).

CPT 20403 Advanced Wall Systems (F,W,S) 1

Covers installation of a variety of finishing materials, including paneling, and wainscoting. Also covers installation of curtain walls and fire-rated commercial construction (Replaces CPT-20037).

CPT 20404 Advanced Stair Systems (F,W,S) 1

Provides extensive coverage of the materials and techniques used in finishing wooden staircases. Also covers a variety of stair systems used in commercial construction (Replaces CPT-20038).

CPT 20405 Intro to Light Equipment (F,W,S) 0.4

Introduces various pieces of light construction equipment commonly used at a construction site, including the aerial lift, skid steer loader, trencher, electric power generator, compressor, compactor, and forklift. Provides an overview of general safety, operation, and maintenance procedures is given for each type of equipment covered (Replaces CPT-20039).

CPT 20406 Commercial Finish Work (F,W,S) 0.2

Introduces the variety of specialized finish materials used on interior and exterior walls, ceilings, and floors of commercial buildings.

CPT 20407 Site Preparation (F,W,S) 0.3

Covers the planning process that precedes the start of work on a construction site, including environmental considerations, personnel issues, access roads, traffic control, permits, site safety, utilities, and crane-related concerns.

CPT 20408 Intro Skills for Crew Leaders (F,W,S) 0.6

Along with the principles of project planning, scheduling, estimating, and management, introduces the basic skills required for supervising personnel. Several case studies are included (Replaces CPT-20042).

CHEMISTRY (CHE)

CHE 10000 Chemical Science (F,W) 4 (3-2)

Chemical Science with lab presents the elementary principles of inorganic, physical, and organic chemistry. It is intended to introduce college chemistry, or to satisfy course requirements in technical fields such as nursing. Prerequisite: MTH-07300 or high school algebra. (Science Credit)

CHE 10101 Gen Chemistry I (F) 4 (4-0)

General Chemistry I provides a thorough discussion of the topics of atomic structure, stoichiometry, solutions and pH, gas laws, electronic configuration and bonding theories, the periodic tables, and liquids and solids. Prerequisites: high school chemistry or CHE-10000 one year of high school algebra. Prerequisite or corequisite: ENG-10303 or permission of instructor. Corequisite: CHE-10102. (Science Credit)

CHE 10102 Gen Chemistry Lab I (F) 1 (0-3)

This is a laboratory course to accompany CHE-10101. Corequisite: CHE-10101. (Science Credit)

CHE 10201 General Chemistry II (W) 4 (4-0)

This is a continuation of General Chemistry I, concerned broadly with thermodynamics and kinetics. Topics discussed include kinetics data analysis and reaction mechanisms, chemical equilibrium, electrochemistry, chemical thermodynamics, nuclear chemistry, and some descriptive chemistry of the elements. Prerequisite: CHE-10101. Corequisite: CHE-10202. (Science Credit)

CHE 10202 General Chemistry II Lab (W) 1 (0-3)

This is a laboratory course to accompany CHE-10201. Corequisite: CHE-10201. (Science Credit)

CHE 20101 Organic Chemistry I (V) 4 (4-0)

Modern bonding theory in organic molecules, theory of reactions, stereochemical principles, chemistry of alkanes, cycloalkanes, alkenes, dienes, alkynes, aromatics, and alcohols, with special emphasis on reaction mechanisms. Prerequisite: CHE-10202.

CHE 20102 Organic Chemistry Lab I (V) 1 (0-3)

Fundamental laboratory techniques and preparations. Prerequisite: CHE-10202.

CHE 20201 Organic Chemistry II (V) 4 (4-0)

Study of ethers and epoxides, carbonyl-containing compounds, aldehydes, ketones, carboxylic acids and their derivatives, carbanion chemistry, aliphatic and aromatic nitrogen-containing compounds, with special emphasis on bioorganic compounds, amino acids and polypeptides, carbohydrates and lipids. Prerequisite: CHE-20101.

CHE 20202 Organic Chemistry Lab II (V) 1 (0-3)

Fundamental laboratory techniques and preparations. Prerequisite: CHE-20101.

COMPUTER INFORMATION SYSTEMS (CIS)

CIS 01000 Basic Computing (F,W) 2 (2-0)

This course is designed to help students learn about the fundamental aspects of using a computer. It is designed for beginners who have never used a computer or are afraid to use one. This course is slower paced and does not have the rigor of a transferable computer course. Students will learn about hardware components, Windows, word processing software, the Internet, and e-mail. This course does not transfer to other colleges or universities. No prerequisite.

CIS 10500 Intro to Computers (F,W,S) 3 (3-0)

Students will become familiar with hardware and software terminology/concepts, Windows operating system, word processing, spreadsheet, database management, presentation software, data communications, the Internet, and ethical/moral issues related to computing. Application software used is the current version of Microsoft Office Professional and the current version of the Internet Explorer. Keyboarding skills are required and necessary for successful completion of this course. Prerequisite: Keyboarding skills.

CIS 11700 Visual Basic I (W) 3 (1.5-1.5)

This course serves as an introduction to Visual Basic. The course introduces concepts concerning the design, creation, test, and execution of Visual Basic Applications. Prerequisite: CIS-10500 with a "B" or better, or demonstrated competency.

CIS 11800 Visual Basic II (V) 3 (1.5-1.5)

This Visual Basic Programming II course reviews algorithmic design concepts and implements them using the Visual Basic programming language. This course addresses Visual Basic programming constructs, arrays, files, and functions; then moves to advanced concepts, controls, and objects. Prerequisite: CIS-11700.

CIS 17001 Microsoft Office (F,W) 3 (3-0)

This course covers how to utilize and integrate all the applications contained within Microsoft Office. Exercises will involve business applications using the word processing, spreadsheet, database management, and presentation software components of Microsoft Office. Application software used Microsoft Office Professional which includes: Word, Excel, Access, and PowerPoint. Prerequisite: CIS-10500 or demonstrated competency.

CIS 17102 PowerPoint (V) 1 (1-0)

Students will create and modify slide show presentations using Microsoft PowerPoint. Emphasis will be placed on customizing slide shows by: a) changing colors, fonts, and styles; b) adding clip art or WordArt objects; c) embedding spreadsheets; and d) adding animation and transition effects. Students will learn how to present the show on a computer monitor and on the World Wide Web. Application software used is the current commercial version of Microsoft PowerPoint. Prerequisite: CIS-10500 or CIS-22302, or demonstrated competency.

CIS 17200 Publisher (V) 2 (2-0)

The student will learn desktop publishing concepts by working through hands-on projects that produce newsletters, brochures, web sites, business cards, letterheads, business forms, and specialty documents. Students will also learn how to customize publications and how to integrate other office objects (i.e., spreadsheets, charts, etc.) into a publication. Application software used is the current version of Microsoft Publisher. No prerequisite.

CIS 17300 Microsoft Access (V) 1 (1-0)

Students will learn how to create database tables, queries, reports and forms. Students will also learn how to develop relationships among the tables and how to publish database information to the internet. Application software used is Microsoft Access. Prerequisite: CIS-10500 or CIS-22302; or demonstrated competency.

CIS 19600 Hardware Certification (F) 3 (3-0)

This course will attempt to prepare students for the industry standard hardware certification exam. Topics will include major hardware components such as motherboards, processors, memory, storage, and peripheral devices. Operating System software from DOS up to the current Windows version will be covered. Techniques for troubleshooting problems and hands-on applications will be presented. Prerequisite: CIS-10500.

CIS 19700 OS Certification (F) 3 (1-2)

This course will help prepare students for the industry standard hardware certification exam with an emphasis on Operating System (OS) core components. Topics include Windows Operating System software and a review of major hardware components that address: motherboards, processors, memory, storage, and peripheral devices. Prerequisite: CIS-10500, or demonstrated competency.

CIS 21000 Internet & Web Page Development (F) 3 (1-2)

Students will be given an overview of the Internet, WWW and Windows file management techniques. Students will learn how to design and create W3C compliant web pages using HTML, XHTML, and cascading style sheets (CSS). Areas covered include: css formatting, hyperlinks, images, image maps, tables, newsletter formats, forms, framed pages, multimedia files, and java applets. Students will also learn how to create their own graphical images for their pages using web-based sites and Photoshop. Completed pages will be uploaded to the student's Internet web site and debugged. Prerequisite: CIS-10500.

CIS 21500 Web Animation & Multimedia (W) 3 (3-0)

Students will create animated graphic content for websites using the current commercial version of Macromedia Flash. Prerequisite: CIS-10500 or demonstrated compentency.

CIS 21900 MacIntosh OS X (F,W) 1 (1-0)

The student will learn functions and commands in the MacIntosh operating system. Specific topics to be covered in this course include working with windows and menus, customizing the desktop, managing files and folders, and running application programs that come with the operating system. This course will offer a brief exposure to internet and multi-media applications, and how they operate in the Mac OS environment.

CIS 22302 Windows (V) 1 (1-0)

The student will learn functions and commands in the Windows operating system. Specific topics to be covered in this course include working with windows and menus, customizing the windows environment, managing files and folders, running application programs that come with Windows, multitasking, exploring multimedia features, and investigating data communication features.

CIS 22400 UNIX (W) 2 (2-0)

Students will learn about the UNIX operating system environment. They will learn about the different UNIX shells and how to issue basic system commands. Students will explore the UNIX file system (partitions, directories, navigation, etc.). Other topics covered include the following: 1) using common editors; 2) basic and advanced file management commands; 3) creating simple and complex shell scripts; 4) using pine for e-mail; 5) using UNIX utilities; and 6) programming in a UNIX environment. System administration will also be covered. Prerequisite: CIS-10500 or demonstrated competency.

CIS 22500 Spreadsheets (W) 3 (3-0)

Students will learn how to build, save, format, print, and modify spreadsheets. Students will also learn how to develop formulas/functions, charts, link worksheets, link workbooks, utilize auditing features, use database features, and develop macros. Application software is the current commercial version of Microsoft Excel. Prerequisite: CIS-10500 or demonstrated competency.

CIS 22702 Microsoft Excel (V) 1 (1-0)

This course explores the use of Microsoft Excel in business-related applications. Students will learn how to build, save, print and modify spreadsheets as well as how to create formulas/functions and charts. Application software used is the current commercial version of Microsoft Excel. Prerequisite: CIS-10500 or CIS-22302, or demonstrated competency.

CIS 23501 Database Design (W) 3 (2-2)

Students will learn the theoretical knowledge necessary to design and implement effective information databases. Areas such as file layout, data structures, implementation methods, security, and web interfacing will be addressed. Students will work with a currently popular commercially available database management system. Prerequisite: CIS-10500 or demonstrated competency.

CIS 24000 Technology in Education (F) 3 (3-0)

Students will learn to operate a wide variety of technology-based equipment; select and assess instructional media materials, courseware, and software; and integrate technology and media into K-12 education. No Prerequisite.

CIS 26000 Intro to Computer Networking (F) 3 (3-0)

This course serves as an overview of digital data communications. The course addresses the following: data communications, digital and analog signals, communications media, multiplexers, data transmission, Protocols, Network concepts, WANs, MANs, LANs, communications services, the Internet, eBusiness, network security, and network management. Prerequisite: Keyboarding skills.

CIS 26100 Internet (V) 1 (1-0)

This course will investigate the resources of the Internet. Areas of exploration will be the World Wide Web, e-mail, Usenet newsgroups, FTP's and Telnet. This course will offer the students the ability to become comfortable finding and retrieving information from this network of networks. Prerequisite: CIS-10500 or demonstrated competency.

CIS 26200 Web Pages (V) 1 (1-0)

Students will design and create web pages using HTML. Once a page has been created, students will edit pages to include text formatting, hyperlinks, images, and tables. Pages will be uploaded to the Internet and debugged. Prerequisite: CIS-10500 or demonstrated competency.

CIS 26300 Advanced Web Pages (V) 1 (1-0)

Students will create a wide variety of web pages including forms, newsletters, and framed pages. They will also learn how to create and add multimedia files to web pages and how to add code for Java applets. Corequisite: CIS-26200 or demonstrated competency.

CIS 26400 JavaScript (W) 3 (3-0)

JavaScript is a programming language that resides inside HTML documents. It is used to create interactive web pages that incorporate banners, pop-up windows, calculations, interactive forms, dynamic images, etc., into web pages. JavaScript topics such as conditionals, functions, objects, properties, methods, event handlers, forms, and frames will be covered in this course. We will also cover ASP commands including database connectivity to give students exposure to serverside scripting. Prerequisite: CIS-21000 or CIS-26300 or demonstrated competency.

CIS 27001 Programming I (F) 3 (3-0)

This course investigates general methods of problem-solving, principles of structured programming, and algorithmic design. This includes data types and variable declarations, I/O (input and output), arithmetic operators, assignment and expressional operators, static and automatic variables, external declaration, functions and modular programming, array processing, pointers, record data structures, and file I/O. Programming language used is C. Corequisite: MTH-12000 or demonstrated competency AND CIS-10500 or demonstrated competency.

CIS 27101 Programming II (W) 4 (4-0)

General methods of problem-solving, principles of algorithmic design, and object-oriented design are discussed. This includes data types, functions, arrays, pointers, objects, classes, class inheritance, polymorphism, exceptions, input, output, and file-handling techniques. Other topics introduced include linked lists, stacks, queues, recursion, and dynamic allocation. Programming language used is C++. Prerequisite: Grade of "C" or better in CIS-27001 or demonstrated competency.

CIS 27201 Web Programming (S) 3 (3-0)

Students will produce interactive, dynamic web-based applications using popular, marketable, web programming languages and tools. Server-side scripting and the .NETenvironment will be explored. Prerequisite: CIS-21000 (or CIS-26200 AND CIS-26300) or demonstrated competency.

CIS 275-- Directed Study-Computer Information System (V) 1-6

This is a course designed to meet special occupational needs for individual students. Prerequisite: advisor recommendation.

CIS 280-- Internship in Computer Information Systems (V) 3-9

This course is designed to provide students with an opportunity to earn credit while obtaining meaningful discipline-related work experience outside the classroom setting. Students are expected to spend a minimum of 128 hours (3 credits) in an appropriate work setting. The course may be repeated for a maximum of nine credits. Prerequisite: 2.5 G.P.A., sophomore standing, employer and instructor approval, and submission to, and approval by, the CIS department.

CORE CONSTRUCTION (COR)

COR 10001 Basic Safety (F,W,S) 0.6

This course covers need-to-know information for trainees to work safely. It includes what personal protective equipment to wear, how to perform basic construction tasks safely, and what to do if an accident occurs.

COR 10002 Introduction to Construction Math (F,W,S) 0.6

From basic addition to multiplying fractions and more, this course prepares trainees to do the calculations they'll be performing on the job site. This includes multiplication tables and unit conversion charts.

COR 10003 Introduction to Hand Tools (F,W,S) 0.4

This course covers a basic toolbox worth of equipment with color pictures of the tools and illustrations of how to use them. It also covers maintenance instructions and safety tips.

COR 10004 Introduction to Power Tools (F,W,S) 0.2

This course provides pictures and how-to-use instructions for tools powered by electricity, batteries, and pressurized air, such as drills, saws, grinders and sanders, and other common construction equipment. It also covers maintenance instructions and safety tips.

COR 10005 Introduction to Blueprints (F,W,S) 0.3

This course introduces trainees to the different types of plans and how they represent a finished building. It shows the parts of blueprints in detail, including symbols, the title block, and gridlines.

COR 10006 Basic Rigging (F,W,S) 0.8

This course covers the slings, hardware, hoists, and hitches used in rigging operations. It also highlights critical safety issues and accepted rigging techniques and practices.

COR 10007 Basic Communication Skills (F,W,S) 0.2

Provides trainees with techniques for communicating effectively with co-workers and supervisors. Includes practical examples that emphasize the importance of verbal and written information and instructions on the job. Also discusses effective telephone and e-mail communication skills.

COR 10008 Basic Employability Skills (F,W,S) 0.6

Identifies the roles of individuals and companies in the construction industry. Introduces trainees to critical thinking, problem solving skills, and computer systems and their industry applications. Also reviews effective relationship skills, effective self-presentation, and key workplace issues, such as sexual harassment, stress, and substance abuse.

COSMETOLOGY (COS)

COS 11200 Manicuring I (F,W,S) 2.5 (0.51-4)

This course covers orientation and theory. Instruction and application include water manicure, hot oil manicure and pedicure, along with sanitation of equipment and implements. Students must pass this course with a minimum grade of "C-" to advance to the next section.

COS 11300 Manicuring II (F,W,S) 2.5 (0.51-4)

This course covers theory and laboratory work on the public. Instruction and application include sculptured acrylic nails, overlays, and fill-ins. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-11200.

COS 11400 Manicuring III (F,W,S) 2.5 (0.51-4)

This course covers theory and laboratory work on the public. Instruction and application include nail tips (blended) and nail wraps. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-11300.

COS 11500 Manicuring IV (F,W,S) 2.5 (0.51-4)

This course covers theory and laboratory work on the public. Instruction and application include spa manicures, gel nails, and hand and feet paraffin. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-11400.

COS 11600 Manicuring V (F,W,S) 2.5 (0.51-4)

This course covers theory and laboratory work on the public. Instruction and application include nail art, air brushing, and Michigan state laws. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-11500.

COS 11700 Manicuring VI (F,W,S) 2.5 (0.51-4)

This course covers theory review, preparation for the final test, and practice of all curriculum in clinic or on a manikin hand. Students complete a final exam and a simulated state board exam. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-11600.

COS 12100 Cosmetology I (F,W,S) 2.5 (0.5-3.5)

This course covers orientation, career information, state laws and regulations, professional image, first aid, chemistry, electricity, job-seeking, and professional ethics. Students must pass this course with a minimum grade of "C-" to advance to the next section.

COS 12200 Cosmetology II (F,W,S) 2.5 (0.5-3.5)

This course covers health, public sanitation methods, chemical agents, types, classifications of bacterial growth, biology, infections, infection control, products, tools, equipment use and safety, bacteriology, and decontamination. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-12100.

COS 12300 Cosmetology III (F,W,S) 2.5 (0.5-3.5)

This course covers principles and techniques of treatment and disorders of the hair and scalp and related chemistry, shampoos, rinses, and scalp treatments. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-12200.

COS 12400 Cosmetology IV (F,W,S) 2.5 (0.5-3.5)

This course covers the principles and techniques of wet styling, blow dry and waving, finger waving, and hairdressing. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-12300.

COS 12500 Cosmetology V (F,W,S) 2.5 (0.5-3.5)

This course covers the principles and techniques of sectioning, removing length or bulk with a razor, scissors, clippers, or shears in haircutting. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-12400.

COS 12600 Cosmetology VI (F,W,S) 2.5 (0.5-3.5)

This course covers the principles and techniques of temporary, semi-permanent, deposit-only, and permanent colors, bleaching, tinting, toning, frosting, special effects, and problems in haircoloring. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-12500.

COS 12700 Cosmetology VII (F,W,S) 2.5 (0.5-3.5)

This course covers the principles and techniques of sectioning, wrapping, processing of chemicals, and rearranging the hair. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-12600.

COS 12800 Cosmetology VIII (F,W,S) 2.5 (0.5-3.5)

This course covers the principles and techniques of sectioning, curling, and relaxing hair as a texture service. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-12700.

COS 12900 Cosmetology IX (F,W,S) 2.5 (0.5-3.5)

This course covers the principles and techniques of advanced nails with nail art. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-12800.

COS 13000 Cosmetology X (F,W,S) 2.5 (0.5-3.5)

This course covers the principles and techniques of massage, manicuring, and pedicuring. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-12900.

COS 13100 Cosmetology XI (F,W,S) 2.5 (0.5-3.5)

This course covers the principles and techniques of skin chemical procedures, massage, and facial treatments. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-13000.

COS 13200 Cosmetology XII (F,W,S) 2.5 (0.5-3.5)

This course covers the principles and techniques of cosmetic application, artificial eyelashes, removal of unwanted hair, and lash and brow tinting. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-13100.

COS 13300 Cosmetology XIII (F,W,S) 2.5 (0.5-3.5)

This course covers the principles and techniques of light therapy. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-13200.

COS 13400 Cosmetology XIV (F,W,S) 2.5 (0.5-3.5)

This course covers the fundamentals of business management, opening a salon, and business plans. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-13300.

COS 13500 Cosmetology XV (F,W,S) 2.5 (0.5-3.5)

This course covers the principles and techniques of written agreements, licensing requirements and regulations, laws, salon operations, policies, practices, compensation packages, payroll deductions, telephone use, advertising, sales, communication, public/human relations, insurance, and salon safety. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-13400.

COS 13600 Cosmetology XVI (F,W,S) 2.5 (0-2.5)

This course covers theory review, preparation for the final test and practice of all curriculum, and a simulated state board exam. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-13500.

COS 17500 Salon Management (F,W,S) 1 (1-0)

In this course, the student will study all aspects of salon business operations including physical plan, furnishings and supplies, systems, personnel, and the overall function in the business community. Students must pass this course with a minimum grade of "C-" to advance to the next section.

COS 21100 Cosmetology Seminar (V) 1 (99-99)

This seminar provides brush-up for licensed cosmetologists. Students must pass this course with a minimum grade of "C-" to advance to the next section.

COS 21300 Cosmetology Seminar (V) 4 (99-99)

This seminar provides brush-up for licensed cosmetologists. Students must pass this course with a minimum grade of "C-" to advance to the next section.

COS 21500 Dry Room Body Wraps (F,W,S) 1 (1-0)

This course will provide instruction on three body wraps, which do not require removal of products. The Siddha Body Detoxification, Herbology Body Treatment, and the Aromatherapy Body wrap will be demonstrated, along with a scalp massage. Aromatherapy oils and gem stone therapy treatments will be explored. Prerequisite: Licensure as Cosmetologist or Esthetician, or current cosmetology student.

COS 22100 Cosmetology Instructor I (F,W,S) 2.5 (0.51-4)

This course offers orientation and review of all subjects in the cosmetology curriculum. Prerequisite: license in cosmetology from the State of Michigan. Students must pass this course with a minimum grade of "C-" to advance to the next section.

COS 22200 Cosmetology Instructor II (F,W,S) 2.5 (0.51-4)

This course provides demonstration and theory in lesson plans. Students are required to do ten lesson plans. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-22100.

COS 22300 Cosmetology Instructor III (F,W,S) 2.5 (0.51-4)

This course provides demonstration and theory in course outlines. Students are required to do five course outlines. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-22200.

COS 22400 Cosmetology Instructor IV (F,W,S) 2.5 (0.51-4)

This course provides demonstration and theory in syllabi and exam questions. The student is required to do a cosmetology syllabus and a 500-question, multiple-choice exam for graduate testing. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-22300.

COS 22500 Cosmetology Instructor V (F,W,S) 2.5 (0.51-4)

This course provides demonstration and theory in teaching in a dynamic clinic, teaching to diverse learning styles. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-22400.

COS 22600 Cosmetology Instructor VI (F,W,S) 2.5 (0.51-4)

This course covers theory review, preparation for the final test and practice of all curriculum, and a simulated state board exam. Students must pass this course with a minimum grade of "C-" to advance to the next section. Prerequisite: COS-22500.

CRIMINAL JUSTICE (CJS)

CJS 10000 Intro to Criminal Justice (F) 3 (3-0)

This course covers the history and developing philosophy of law enforcement, including the police, courts, and corrections; present organization and jurisdiction of local, state, and federal agencies; and an introduction to the problems facing the criminal justice system today. Prerequisite: permission of the Careers in Emergency Services Advisor.

CJS 10200 Physical Training I (F,W,S) 3 (4-0)

This course is designed for the criminal justice student to participate in the state's Physical Agility Test. The student will work at developing upper-body strength, stamina, and legwork as needed to pass the different stages of the examination. Prerequisite: permission of the Careers in Emergency Services Advisor.

CJS 10201 Physical Training II (F,W,S) 3 (4-0)

This course is a continuation of CJS-10200. It is designed to continue the preparation of the criminal justice student planning to participate in the state's Physical Agility Test. The student will continue working on developing upper-body strength, stamina, and legwork as needed to pass the different stages of the examination. Prerequisite: CJS-10200 and permission of the Careers in Emergency Services Advisor.

CJS 10202 Physical Training III (F,W,S) 3 (4-0)

This course is a continuation of CJS-10201. It is designed to continue the preparation of the criminal justice student planning to participate in the state's Physical Agility Test. The student will continue working on developing upper-body strength, stamina, and legwork as needed to pass the different stages of the examination. Prerequisite: CJS-10201 and permission of the Careers in Emergency Services Advisor.

CJS 10800 Firearms (F,W) 3 (1-2)

This is an eight-week course that covers orientation to firearms; policies, procedures, and liability of firearms; and use and hands-on firearms range techniques using targets approved by the Michigan Commission on Law Enforcement Standards (MCOLES). Prerequisite: employment as a peace officer or status as a criminal justice student and permission of the Careers in Emergency Services Advisor.

CJS 10900 Intro to Corrections (F) 3 (3-0)

This course introduces the agencies and processes within the correctional system, beginning with ancient history through the modern era. Correctional legislation and the courts are examined, along with the integral parts they play in sentencing, parole, probation, community corrections, and the correctional officer's professional work ethics. Prerequisite: permission of the Careers in Emergency Services Advisor.

CJS 11000 Careers in Emergency Services (F) 1 (1-0)

The course is designed to acquaint the student with a variety of emergency services occupations. Prerequisite: enrollment as a Careers in Emergency Services student and permission of the Careers in Emergency Services Advisor.

CJS 11100 Legal Issues in Corrections (F) 3 (3-0)

This course is a study of up-to-date constitutional law and its impact on correctional institutions, the correctional officer, and the inmate. The student will gain a basic understanding of how state and federal court decisions pertaining to inmate rights have affected the writing of policy and procedure within the correctional system. Prerequisite: permission of the Careers in Emergency Services Advisor.

CJS 11200 Client Growth & Development (F,W,S) 3 (3-0)

This course is designed to assist the student in identifying behaviors and motivations of the inmate. Emphasis will be placed on the needs of the inmate and intervention strategies. Prerequisite: permission of the Careers in Emergency Services Advisor.

CJS 17000 Correctional Institution/Facilities (W) 3 (3-0)

Included in this course will be an overview of the different levels of security and their historical development within the correctional system. Facility design, organizational structure, custody, security, and inmate due process rights will be reviewed, as well as future projections for correctional facilities and personnel. Prerequisite: permission of the Careers in Emergency Services Advisor.

CJS 17103 Corr Officer Report Writing w/Comp (W) 1 (1-0)

The course is designed to develop and improve the student's report-writing skills that are needed in correctional institutions. The student will demonstrate the ability to communicate effectively in written form. This is an eight-week course that meets two hours per week. Students prepare their writing using microcomputers. Prerequisite: ENG-10303 and permission of the Careers in Emergency Services Advisor.

CJS 17200 Client Relations in Corrections (W) 3 (3-0)

This course is designed to give the student an understanding of culture and discrimination. Ethics, morals, and professionalism will be examined closely. Affirmative action, social attitudes, and how they affect the correctional systems will also be carefully scrutinized. Prerequisite: permission of the Careers in Emergency Services Advisor.

CJS 208-- Criminal Justice Internship (F,W,S) 3-9

After successful completion of basic criminal justice courses, students may elect criminal justice internship. Students are placed in an approved training station, earn credits for satisfactory work performance, and may earn remuneration. Participation requires approval from the director of criminal justice. Students' occupational interests are considered with their background and related classes to determine employment arrangements. Flexibility of individual programs in any of the law enforcement occupations is accomplished through a practical training program developed in agreement with the training station supervisors and college coordinator. The director shall arrange objectives and assignments that are in accord with purposes of vocational education and maintain constant evaluation through coordination visits to training stations and weekly meetings with the students. Prerequisite: first year of program completed or permission of the head of Careers in Emergency Services.

CJS 21100 Narcotics Investigation (F) 3 (3-0)

This course will familiarize students with investigations involving dangerous drugs and will include history, sources, recognition, laws, and courtroom presentations. Prerequisite: permission of the Careers in Emergency Services Advisor.

CJS 22400 Advanced Firearms Training (F,W) 3 (1-2)

The course presents the concepts and techniques related to safely using a semiautomatic pistol. The policies, procedures, and liabilities concerning the use and care of the weapon will be demonstrated by each student. The student will also demonstrate his or her proficiency with weapons using a course and targets approved by MCOLES. This is an eight-week course of which 16 hours are lecture and 32 hours are range time. Prerequisite: CJS-10800 and permission of the Careers in Emergency Services Advisor.

CJS 24000 Criminology (W,S) 3 (3-0)

This course provides an analysis of crime, criminal behavior, and punishment through a variety of historical and contemporary theoretical perspectives. Prerequisite or corequisite: ENG-10303 and PSY-10100 or SOC-10100 or permission of instructor.

CJS 24500 Social Deviant Behavior (W) 3 (3-0)

This course studies social deviant behavior, including social and ethnic bias, sociopaths, cult behavior, and ethical behaviors within the criminal justice process. Prerequisite: PSY-10100 or SOC-10100 and permission of the Careers in Emergency Services Advisor.

CJS 26007 Corrections Academy (F) 10 (0-160)

This course is a 160-hour Local Corrections Academy approved by the Michigan Correctional Officer's Training Council. The course will cover booking, intake and release, suicide awareness, report writing, prison behavior, correctional law, custody and security, PPCT defensive tactics, interpersonal communication, fire and safety, cultural diversity, sexual harassment, ethics, and stress management. Prerequisites: employment or sponsorship by a sheriff's department and approval of the head of Careers in Emergency Services.

CJS 26600 Police Academy (F,W) 21 (1-42)

This is a 17-week, Michigan Commission on Law Enforcement Standards (MCOLES)-approved, regional police academy. It will cover investigation, patrol procedures, detention and prosecution, police skills, traffic, and special operations. Prerequisite: degree in hand, enrollment in Kirtland's pre-service program, or sponsorship by a police organization, upon approval of the director of the academy.

CJS 28100 Correctional Management (W) 3 (3-0)

This course provides a study of the total confinement process from arrest through adminstration of justice, probation, and parole to include community based correctional programs, prison, and correctional institutions. Particular emphasis will be placed on coping with problems of custodial personnel in city and county jails. Prerequisite: CJS-10000, CJS-10900, CJS-11000 and permission of the Careers in Emergency Services Advisor.

ECONOMICS (ECO)

ECO 20100 Prin of Economics-MACRO (F) 3 (3-0)

This is a one-semester basic economics course emphasizing national income determination, monetary and fiscal policy, and international trade. (This course may be taken before or after ECO-20200.) Prerequisite or corequisite: ENG-10303. Recommended Prerequisite: Sophomore standing. (Social Science Credit)

ECO 20200 Prin of Economics-MICRO (W) 3 (3-0)

This is a one-semester course that concentrates on supply and demand analysis, theory of the firm, and the pricing of factors of production. (This course may be taken before or after ECO-20100.) Prerequisite or corequisite: ENG-10303. Recommended Prerequisite: Sophomore standing. (Social Science Credit)

EDUCATION (EDU)

EDU 10000 Intro to Teaching (F,W) 3 (2-1)

This course explores teaching as a career. Along with understanding the requirements of obtaining a degree and a job in teaching, students will develop a knowledge of current issues and problems in education. Observation techniques will be presented that the student will apply to guided classroom observation and participation for each student in accordance with the student's schedule. Prerequisite or corequisite: ENG-10303.

EDU 11500 Intro to Child Growth & Development (F) 3 (3-0)

This course focuses on child growth and development from birth to age 12 with emphasis on establishing a safe, healthy learning environment for children. Ways to support positive social development, teaching strategies for positive guidance, and establishing/maintaining a safe, healthy, appropriate learning environment will be provided.

EDU 12000 Preschool Lesson Design & Class Mgt (F) 3 (3-0)

This course will provide materials, knowledge, and hands-on experience in ways to nurture cognitive, motor, language, and creative process skills in children. Emphasis will be placed on advancing physical and intellectual development in young children. NOTE: A minimum of 25 hours of fieldwork required outside of class. Prerequisite or corequisite: EDU-11500.

EDU 13000 CDA Credential Practicum (W) 3 (3-0)

This course is designed to provide students with a vehicle for attainment of the Child Development Associate Credential. Students will by the end of the course have demonstrated through practical application and written work, competencies in thirteen functional areas of Child Development. In addition they will have completed the observations, training, and professional documentation necessary for attainment of the Child Development Associate Credential. Prerequisite: advisor or instructor approval - NOTE: The following prerequisites are required by the CDA Council to apply for CDA Certification: Must be 18 years of age or older, must have High School Diploma or GED, must be currently employed in a child care setting and have spent a minimum of 480 hours caring for children in the last five years.

EDU 21500 Administering Preschool Programs (W) 3 (3-0)

This course addresses program management, parent partnerships, and professionalism. Emphasis will be placed on positive and productive relations with families, ensuring a well-run and purposeful program responsive to needs and understanding professional commitment. Prerequisite: EDU-11500. Corerequisite: EDU-13000.

EDU 24000 Technology in Education (F) 3 (3-0)

Students will learn to operate a wide variety of technology-based equipment; select and assess instructional media materials, courseware, and software; and integrate technology and media into K-12 education.

ELECTRICAL TECHNOLOGY (ELT)

ELT 10101 Orientation to the Electrical Trade (F,W,S) 0.1

Provides an overview of the electrical trade and discusses the career paths available to electricians.

ELT 10102 Electrical Safety (F,W,S) 0.4

Covers safety rules and regulations for electricians. Teaches the necessary precautions to take for various electrical hazards found on the job. Also covers the OSHA-mandated lockout/tagout procedure. (Replaces ELT-10044).

ELT 10103 Introduction to Electrical Circuits (F,W,S) 0.3

Introduces series, parallel, and series-parallel circuits. Covers resistive circuits, Kirchoff's voltage and current laws, and circuit analysis. (Replaces ELT-10047).

ELT 10104 Electrical Theory (F,W,S) 0.3

Introduces series, parallel, and series-parallel circuits. Covers resistive circuits, Kirchoff's voltage and current laws, and circuit analysis. (Replaces ELT-10048).

ELT 10105 Intro to the NEC (F,W,S) 0.3

Provides a navigational road map for using the NEC. Introduces the layout of the NEC and the types of information found within the code book. Allows trainees to practice finding information using an easy-to-follow procedure. (Replaces ELT-10050).

ELT 10106 Device Boxes (F,W,S) 0.4

Covers the hardware and systems used by an electrician to mount and support boxes, receptacles, and other electrical components. Covers NEC® fill and pull requirements for device, pull, and junction boxes under 100 cubic inches. (Replaces ELT-10046)

ELT 10107 Hand Bending (F,W,S) 0.4

Provides an introduction to conduit bending and installation. Covers the techniques for using hand-operated and step conduit benders, as well as cutting, reaming, and threading conduit. (Replaces ELT-10045).

ELT 10108 Raceways and Fittings (F,W,S) 0.8

Introduces the types and applications of raceways, wireways, and ducts. Stresses the appropriate NEC® requirements. (Replaces ELT-10051).

ELT 10109 Conductors and Cables (F,W,S) 0.4

Focuses on the types and applications of conductors and covers proper wiring techniques. Stresses the appropriate NEC® requirements. (Replaces ELT-10052)).

ELT 10110 Basic ELT Construction Drawings (F,W,S) 0.3

Focuses on electrical prints, drawings, and symbols. Teaches the types of information that can be found on schematics, one-lines, and wiring diagrams. (Replaces ELT-10053).

ELT 10111 Residential Electric Services (F,W,S) 0.6

Covers the electrical devices and wiring techniques common to residential construction and maintenance. Allows trainees to practice making service calculations. Stresses the appropriate NEC® requirements. (Replaces ELT-10055).

ELT 10112 Electrical Test Equipment (F,W,S) 0.2

Focuses on proper selection, inspection, and use of common electrical test equipment, including voltage testers, clamp-on ammeters, ohmmeters, multimeters, phase/motor rotation testers, and data recording equipment. Also covers safety precautions and meter category ratings. (Replaces ELT-10049).

ELT 10202 Alternating Current (F,W,S) 0.7

Focuses on forces that are characteristic of alternating-current systems and the application of Ohm's law to AC circuits. (Replaces ELT-10056).

ELT 10203 Motors: Theory and Application (F,W,S) 0.8

Covers AC and DC motors, including the main components, circuits, and connections. (Replaces ELT-10057).

ELT 10204 Electrical Lighting (F,W,S) 0.6

Introduces the basic principles of human vision and the characteristics of light. Focuses on the handling and installation of various types of lamps and lighting fixtures. (Replaces ELT-10067).

ELT 10205 Conduit Bending (F,W,S) 0.6

Covers all types of bends in all sizes of conduit up to 6 inches. Focuses on mechanical, hydraulic, and electrical benders. (Replaces ELT-10059).

ELT 10206 Pull and Junction Boxes (F,W,S) 0.5

Driven by the NEC®. Explains how to select and size pull boxes, junction boxes, and handholes. (Replaces ELT-10060).

ELT 10207 Conductor Installations (F,W,S) 0.4

Covers the transportation, storage, and setup of cable reels; methods of rigging; and procedures for complete cable pulls in raceways and cable trays. (Replaces ELT-10061).

ELT 10208 Cable Tray (F,W,S) 0.3

Focuses on NEC® installation requirements for cable tray, including cable installations. (Replaces ELT-10062).

ELT 10209 Conductor Terminations and Splices (F,W,S) 0.3

Describes methods of terminating and splicing conductors of all types and sizes, including preparing and taping conductors. (Replaces ELT-10063).

ELT 10210 Grounding and Bonding (F,W,S) 0.6

Focuses on the purpose of grounding and bonding electrical systems. Thoroughly covers NEC® requirements. (Replaces ELT-10058).

ELT 10211 Circuit Breakers and Fuses (F,W,S) 0.5

Describes fuses and circuit breakers along with their practical applications. Also covers sizing. (Replaces ELT-10065).

ELT 10212 Control System and Concepts (F,W,S) 0.5

Gives basic descriptions of various types of contactors and relays along with their practical applications. (Replaces ELT-10066).

ELT 14000 Solar/Wind Energy Systems (F,W,S) 3 (2-2)

This course is designed to teach students how solar and wind energies are converted, transmitted and stored. Topics include design, components, installation, power distribution and maintenance of solar/wind energy systems. Theory and hands- on instruction include both residential and industrial renewable energy generation systems that are commonly used to provide the electrical needs of consumers in today’s markets. Prerequisites: ELT-10103, ELT-10104, and ELT-10112, OR OPE-14000 OR AUT-16401.

ELT 20303 Load Calculations - Branch Circuits (F,W,S) 0.7

Explains how to calculate branch circuit and feeder loads for various residential and commercial applications. (Replaces ELT-20068).

ELT 20304 Conductor Selection and Calculation (F,W,S) 0.6

Covers the various factors involved in conductor selection, including insulation types, current-carrying capacity, temperature ratings, and voltage drop. (Replaces ELT-20069).

ELT 20305 Practical Applications of Lighting (F,W,S) 0.5

Covers specific types of incandescent, fluorescent, and HID lamps, as well as ballasts, troubleshooting, and various types of lighting controls. (Replaces ELT-20082).

ELT 20306 Hazardous Locations (F,W,S) 0.6

Covers the NEC® requirements for equipment installed in various hazardous locations. (Replaces ELT-20080).

ELT 20307 Overcurrent Protection (F,W,S) 1

Explains how to size and select circuit breakers and fuses for various applications. Also covers short circuit calculations and troubleshooting. (Replaces ELT-20307).

ELT 20308 Distribution Equipment (F,W,S) 0.5

Discusses switchboards and switchgear, including installation, grounding, and maintenance requirements. This module includes blueprints. (Replaces ELT-20073).

ELT 20309 Transformers (F,W,S) 0.5

Discusses transformer types, construction, connections, protection, and grounding. (Replaces ELT-20074).

ELT 20310 Commerical Electrical Services (F,W,S) 0.4

Covers the components, installation considerations, and NEC® requirements for various commercial services.

ELT 20311 Motor Calculations (F,W,S) 0.5

Covers calculations required to size conductors and overcurrent protection for motor applications. (Replaces ELT-20076).

ELT 20312 Voice, Data, and Video (F,W,S) 0.4

Covers installation, termination, and testing of various voice, data, and video cabling systems.

ELT 20313 Motor Controls (F,W,S) 0.5

Provides information on selecting, sizing, and installing motor controllers. Also covers control circuit pilot devices and basic relay logic. (Replaces ELT-20078).

ELT 20404 Load Calculations - Feeder and Serv (F,W,S) 0.8

Topics include basic calculation procedures for commercial and residential applications. (Replaces ELT-20081).

ELT 20405 Health Care Facilities (F,W,S) 0.4

Covers the installation of electric circuits in health care facilities, including the requirements for life safety and critical circuits.

ELT 20406 Standby and Emergency Systems (F,W,S) 0.4

Explains the NEC® requirements for electric generators and storage batteries. (Replaces ELT-20083).

ELT 20407 Basic Electronic Theory (F,W,S) 0.4

Explains the function and operation of basic electronic devices, including semiconductors, diodes, rectifiers, and transistors. (Replaces ELT-20084).

ELT 20408 Fire Alarm Systems (F,W,S) 0.6

Covers fire alarm control units, Digital Alarm Communicator Systems (DACS), wiring for alarm initiating and notification devices, and alarm system maintenance. (Replaces ELT-20085).

ELT 20409 Specialty Transformers (F,W,S) 0.4

Covers various types of transformers and their applications. Also provides information on selecting, sizing, and installing these devices. (Replaces ELT-20086).

ELT 20410 Advanced Motor Controls (F,W,S) 0.8

Discusses applications and operating principles of solid-state controls, reduced-voltage starters, and adjustable frequency drives. Also covers basic troubleshooting procedures. (Replaces ELT-20087).

ELT 20411 HVAC Controls (F,W,S) 0.6

Provides a basic overview of HVAC systems and their controls. Also covers electrical troubleshooting and NEC® requirements. (Replaces ELT-20088).

ELT 20412 Heat Tracing and Freeze Protection (F,W,S) 0.4

Covers various heat tracing systems along with their applications and installation requirements. (Replaces ELT-20090).

ELT 20413 Motor Operation and Maintenance (F,W,S) 0.4

Covers motor cleaning, testing, and preventive maintenance. Also describes basic troubleshooting procedures.

ELT 20414 Medium Voltage Termination/Splices (F,W,S) 0.4

Offers an overview of the NEC® and cable manufacturers' requirements for medium-voltage terminations and splices.

ELT 20415 Special Locations (F,W,S) 0.8

Describes the NEC® requirements for selecting and installing equipment, enclosures, and devices in various special locations including places of assembly, theaters, carnivals, agricultural buildings, marinas, temporary installations, wired partitions and swimming pools.

ELT 20416 Introductory Skills for Crew Leader (F,W,S) 0.6

Teaches the basic leadership skills required to supervise personnel. Discusses principles of project planning, scheduling, estimating, management, and presents several case studies for student participation.

ENGINEERING DESIGN TECHNOLOGY (EDT)

EDT 11000 Detailing w/AutoCAD (F,W) 3 (2-2)

Detailing with AutoCAD is intended to instruct students in the fundamentals of two-dimensional, computer-aided drafting. Topic areas will include orthographic, auxiliary, and section view drawings with an emphasis on dimensioning techniques common to industry. Assignments will be completed on a computer using AutoCAD software.

EDT 13000 Fundamentals of MasterCAM (F,W) 3 (1.5-1.5)

Fundamentals of MasterCAM is designed to give students a working knowledge of the MasterCAM software. Topics will include 2D and 3D line drawing, solids, and tool path geometry. Assignments will be completed on the MasterCAM computer-drafting

EDT 14000 Architectural Drafting/CAD (W) 4 (2-2)

In Architectural Drafting, students will prepare complete sets of residential and/or light commercial working drawings. Students will complete assignments with a computer-aided drafting system. Prerequisite: EDT-11000, or permission of instructor.

EDT 15000 Quality Assurance Methods (F,W) 3 (3-0)

Quality Assurance Methods is a study of the main quality methods used in problem solving for many commercial and industrial applications. Students will be introduced to the variety of uses of Statistical Process Control (S.P.C.), and Total Quality Management. Students will develop an understanding of the principles of S.P.C. and the ability to use S.P.C. through study materials, demonstrations, preparation of control charts, team assignments, and problem-solving exercises.

ENGLISH & LITERATURE (ENG)

ENG 08008 Essential Language Skills (F,W,S) 3

This course is designed to meet the needs of those students who have demonstrated very low reading and writing skills. Self-paced instruction and tutorial assistance provided.

ENG 08602 Basic Reading Skills (F,W) 3

This course offers instruction in basic reading techniques to improve comprehension, vocabulary, and critical thinking skills.

ENG 08805 Writing Mechanics (F,W) 2

This course provides individualized and/or small group instruction in basic writing skills. Prerequisite: permission of the instructor.

ENG 09000 Fund of English (F,W,S) 3

This course provides instruction for freshmen who have demonstrated limited ability in communication skills. Content includes emphasis on grammar, word usage, mechanics, and basic expository writing. NOTE: Successful completion of this course is a prerequisite for ENG-10303 for students who have not demonstrated proficiency on the English placement test.

ENG 09601 College Reading Skills (F,W,S) 3

This course focuses on identifying each student's strengths and problems as a learner and using that information to improve reading and study skills. It also emphasizes goal setting, time management, critical reading/thinking, vocabulary building, and reading faster while understanding more.

ENG 10000 Writing Lab (F,W,S) 1 (1-1)

This course provides personalized, competency-paced instruction in writing skills. Because this is part of the English composition requirement, most students will take this course while enrolled in ENG-10303. (Communication)

ENG 10303 English Composition I w/Computers (F,W,S) 3 (3-0)

Composition I with Computers teaches the writing skills necessary to succeed in communicating in career, college or life. Students will write and revise four formal, structured essays, two impromptu essays, and many informal composition works. The course will introduce students to research skills through a short research project applying writing and computer skills. Simultaneous participation in Writing Lab (ENG-10000) is required unless the student proves compentency equal to lab performance. Prerequisite: ENG-09000 or a satisfactory writing sample, and ENG-09601 or a satisfactory reading placement. (Communication)

ENG 10403 English Composition II w/Computers (F,W,S) 3 (3-0)

A continuation of English Composition I, this course emphasizes writing analytical, critical, and argumentative essays and developing effective thinking skills. The course provides practice in library methods, research techniques, and the documented research essay. Students prepare their writing using microcomputers. Prerequisite: Satisfactory (C- or above) completion of ENG-10303. (Communication)

ENG 10602 Technical Writing w/Computers (W) 3 (3-0)

A course which introduces effective organizational writing with a technical focus. Students write documents which meet the information needs of business, industrial, professional, and government organizations. Assignments include business letters, memorandums, job applications materials, technical descriptions, instructions, proposals, and short and long reports. The course provides practice in document design, library methods, research techniques, and documented research writing. Students prepare their writing using microcomputers. Prerequisite: Satisfactory (C- or above) completion of ENG-10303.

ENG 12000 Journalism I (F,W) 3 (3-0)

This introduction to journalism includes techniques of news gathering and news writing as well as issues such as accuracy, fairness, laws, and ethics. Current newspaper, radio, television, and Internet news sources are also examined. Prerequisite: Satisfactory (C- or above) completion of ENG-10303 or permission of instructor. (Humanities Credit - Journalism)

ENG 12100 Journalism II (F,W) 3 (3-0)

This course provides an in-depth look at journalistic news gathering and news writing. Special areas studied include police and courtroom news, sports reporting, environmental news, and opinion columns. Prerequisite: Satisfactory (C- or above) completion of ENG-10303 or permission of instructor. (Humanities Credit - Journalism)

ENG 125-- Journalism Practicum (F,W) 1-4

Students work with the advisor as staff members of the college news magazine in one area of reporting, editing, photography, desktop publishing, advertising sales, or a combination of these areas. The course may be repeated up to a maximum of four credit hours. Prerequisites: ENG-12000 and ENG-12100 or permission of instructor. (Humanities Credit - Journalism)

ENG 21400 Intro to Literature (W) 3 (3-0)

This course considers the expression in literature of such universal themes in human experience as the loss of innocence, the search for identity, the desire for happiness, and the confrontation with death through the study of selected essays, fiction, poetry, and drama. Prerequisite: Satisfactory (C- or above) completion of ENG-10303 or permission of instructor. (Humanities Credit - Literature)

ENG 21500 Creative Writing (F,W) 3 (3-0)

This course provides study and practice of imaginative writing in poetry, fiction, and personal essay. Half the class time will be used in workshop format, sharing work for group comment and critique. The other half of class time will be used to discuss contemporary creative works and essays by writers. Prerequisite or corequisite: ENG-10303 or permission of instructor. (Humanities Credit - Creative Writing)

ENG 22500 Contemporary Literature (S) 3 (3-0)

Students will study works of selected authors of the 20th century. Prerequisite: Satisfactory (C- or above) completion of ENG-10303 or permission of instructor. (Humanities Credit - Literature)

ENG 22800 Mythology (F) 3 (3-0)

A cross-cultural and historical survey of the world's myths, the class will also consider such questions as the meaning of myth, the purposes and functions of myth, theories of how myths originate, and ways that myths have been analyzed and interpreted. Prerequisite: Satisfactory (C- or above) completion of ENG-10303. (Humanities Credit - Literature)

ENG 23000 American Literature Before 1865 (F) 3 (3-0)

This course surveys the growth and development of America's literature from its beginnings to the Civil War. Representative authors may include Bradstreet, Franklin, Irving, Cooper, Poe, Hawthorne, Thoreau, Melville, Whitman, and others. Prerequisite: Satisfactory (C- or above) completion of ENG-10303 or permission of instructor. (Humanities Credit - Literature)

ENG 23100 American Literature After 1865 (W) 3 (3-0)

This course is a survey of the growth and development of America's literature from the Civil War to the present day. Representative authors may include Twain, James, Frost, Eliot, O'Neill, Hemingway, Faulkner, Welty, Bellow, and others. Prerequisite: Satisfactory (C- or above) completion of ENG-10303 or permission of instructor. (Humanities Credit - Literature)

ENG 23200 English Literature (F) 3 (3-0)

This course will cover the major periods in English literature: Old English, Middle English, Sixteenth Century, Seventeenth Century, Restoration and Eighteenth Century, the Romantic Period, the Victorian Age, and the Modern Age. This course is designed for non-English majors, relying on class discussion with instructor lectures. Prerequisite: Satisfactory (C- or above) completion of ENG-10303 or permission of instructor. (Humanities Credit - Literature)

ENG 251-- Topics in Literature (W) 3 (3-0)

This course is a study of a significant literary topic and may cover genres, literary figures, subjects, or themes. The class may be repeated for credit if the topics are different. Prerequisite: Satisfactory (C- or above) completion of ENG-10303 or permission of instructor. (Humanities Credit - Literature)

ENG 29100 Poetry Workshop I (W) 3 (3-0)

This course is a workshop-oriented class for advanced poetry writing. Students will be expected to write poems in a variety of forms, discuss each other's work intelligently, and read contemporary poetry. Students are also expected to develop a manuscript of finished poems and work on Controlled Burn. Prerequisite: ENG-21500. (Humanities Credit - Creative Writing)

ENG 29200 Fiction Workshop I (W) 3 (3-0)

This course is a workshop-oriented class for advanced fiction writing. Students will be expected to write three to five stories in various voices or work on a novel, discuss each other's work intelligently, and read contemporary fiction. Students are also expected to develop a manuscript of fiction and work on Controlled Burn. Prerequisite: ENG-21500. (Humanities Credit - Creative Writing)

ENG 29300 Poetry Workshop II (W) 3 (3-0)

This course furthers students' pursuits in the study of poetry through workshop and in individual conferences with the instructor. Prerequisite: ENG-29100. (Humanities Credit - Creative Writing)

ENG 29400 Fiction Workshop II (W) 3 (3-0)

This course is designed to allow students to develop their craft in fiction writing through workshop and individual conferences. Prerequisite: ENG-29200. (Humanities Credit - Creative Writing)

ENGLISH AS A SECOND LANGUAGE (ESL)

ESL 01000 Eng as a 2nd Lang/Beginning (F,W) 3 (3-0)

This self-instructional course addresses the needs of an international student who is minimally conversant in English. The course concentrates mainly on oral communication. The class involves independent listening to audiotapes and language practice with a native-speaking tutor/trainer for three hours per week. A minimal amount of grammar and textbook reading may also be introduced. Prerequisite: approval of instructor, based on a personal interview and/or writing sample.

ESL 05000 Eng as a 2nd Lang/Intermediate (F,W) 3 (3-0)

This course addresses the needs of an international student who can converse and read in English. The class combines two-page readings, discussion, vocabulary and grammar practice, as well as sentence and paragraph writing. Prerequisite: approval of instructor, based on a personal interview and/or writing sample.

ESL 06000 Eng as a 2nd Lang/High Intermediate (F,W) 3 (3-0)

This course addresses the needs of an international student who can converse, read, and write short paragraphs in English. The class focuses mainly on the writing of 200-400 word essays. This course prepares the student to take ENG-10303. Prerequisite: ESL-05000 or permission of instructor, based on a personal interview and a writing sample (placement test).

FIRE FIGHTER TRAINING (FFT)

FFT 10500 Introduction to Fire Fighting (F) 3 (3-0)

The student will review the historical practices of fire prevention; identify the roles of fire service in society, both in the public and private sector. The structure of fire service organizations and basic field equipment will be identified through lecture and discussion methods as well as field trips. Job opportunities and necessary qualifications will be addressed. Prerequisite: permission of the Careers in Emergency Services Advisor.

FFT 10600 Introduction to Arson Investigation (F) 3 (3-0)

This course examines the theories of fire investigation and the role of the fire investigator. The methodology of fire investigation, motives of arsonists, fueld, incendiary fire, explosions and auto fires will be discussed, as will the formulation and testing of a hypothesis with regard to the origin and cause of a fire. Students will develop the basic knowledge of the methodology utilized by fire investigators. Prerequisite: permission of the Careers in Emergency Services Advisor.

FFT 10700 Fire Fighter Safety & Survival (W) 3 (3-0)

This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services. It further broadens the scope of the national firefighter life safety initiative and emphasizes their importance at the supervisory and managerial levels.

FFT 20500 Fire Fighter I (F) 10 (6-4)

This course provides an introduction to basic fire suppression, prevention procedures and skill development, and is the first of two courses. This course is for students who are currently employed by a Michigan Fire Marshall recognized fire department, or currently seeking employment, and /or volunteer in a recognized fire district. This course meets the state-mandated requirements for preparing students to take the exam for state certification for entry-level on-call or volunteer fire fighters. Michigan Law mandates that persons taking this course must be at least 18 years of age and have a valid Michigan Driver's License. Prerequisites: 18 years of age; enrollment in Kirtland's fire science program; approval of director of Careers in Emergency Services program.

FFT 20600 Fire Fighter II (W) 10 (6-4)

Fire Fighter II is the second of two courses. This course deals with advanced fire suppression techniques, including prevention procedures and skills development. This course is for students who are currently employed by a Michigan Fire Marshall recognized fire department, or currently seeking employment, and/or volunteer in a recognized fire district. This course meets the state-mandated requirements for preparing students to take the exam for state certification for entry-level on-call or volunteer fire fighters. Michigan Law mandates that persons taking this course must be at least 18 years of age and have a valid Michigan Driver's License. Prerequisites: Satisfactory completion of FFT-20500 Fire Fighter I; 18 years of age; enrollment in Kirtland's fire science program; approval of director of Careers in Emergency Services program.

GEOGRAPHY (GEO)

GEO 10000 World Geography (W,S) 4 (4-0)

This course provides description and analysis of basic geographic concepts as they relate to the major world regions, and the distribution patterns of various social, economic, and cultural activities of man. Prerequisite or corequisite: ENG-10303. (Social Science Credit)

GEOLOGY (GEL)

GEL 10500 Physical Geology (F) 4 (3-2)

This lecture and laboratory course examines earth materials and the internal and external processes acting on them. Among the topics to be discussed are rocks and minerals, vulcanism, accretion, and the agents of erosion. Laboratory studies include rock and mineral identification and interpretation of topographic maps, geologic maps, and aerial photographs. (Science Credit)

HEATING/VENTILATION/AC/REFRIGERATION (HVC)

HVC 10200 Commercial Airside Systems (F,W,S) 0.5

Describes the systems, equipment, and operating sequences used in a variety of commercial airside system configurations, such as constant volume single-zone and multi-zone, VVT, VAV, and dual-duct VAV. (Replaces HVC-20149).

HVC 10201 Chimneys, Vents, and Flues (F,W,S) 0.2

Covers the principles of venting fossil-fuel furnaces and the proper methods for selecting and installing vent systems for gas-fired heating equipment. (Replaces HVC-10103).

HVC 10202 Intro to Hydronic Systems (F,W,S) 0.4

Introduces hot water heating systems, focusing on safe operation of the low-pressure boilers and piping systems commonly used in residential applications.

HVC 10203 Air Quality Equipment (F,W,S) 0.2

Covers the basic principles, processes, and devices used to control humidity and air clean-lines, as well as devices used to conserve energy in HVAC systems. (Replaces HVC-10109).

HVC 10205 Alternating Current (F,W,S) 0.3

Covers transformers, single-phase and three-phase power distribution, capacitors, the theory and operation of induction motors, and the instruments and techniques used in testing AC circuits and components. Also reviews electrical safety. (Replaces HVC-10105).

HVC 10206 Basic Electronics (F,W,S) 0.2

Explains the theory of solid-state electronics, as well as the operation, use, and testing of the various electronic components used in HVAC equipment. Includes an introduction to computers. (Replaces HVC-10106).

HVC 10207 Control Circuit Troubleshooting (F,W,S) 1.2

Covers the operation, testing, and adjustment of conventional and electronic thermostats, as well as the operation of common electrical, electronic, and pneumatic circuits used to control HVAC systems. Also explains how to analyze circuit diagrams for electronic and microprocessor-based controls used in comfort heating and cooling equipment and how to troubleshoot systems that use these controls. (Replaces HVC-10123).

HVC 10208 Troubleshooting Gas Heating (F,W,S) 0.5

Covers tools, instruments, and techniques used in troubleshooting gas heating appliances, including how to isolate and correct faults. (Replaces HVC-20141).

HVC 10209 Troubleshooting Cooling (F,W,S) 0.8

Covers the basic techniques and equipment used in troubleshooting cooling equipment, focusing on analyzing system temperatures and pressures in order to isolate faults. (Replaces HVC-20144).

HVC 10210 Heat Pumps (F,W,S) 0.8

Covers the principles of reverse cycle heating, describes the operation of the various types of heat pumps, and describes how to analyze heat pump control circuits. Includes heat pump installation and service procedures. (Replaces HVC-10112).

HVC 10211 Installation/Maintenance Practices (F,W,S) 0.7

Covers the application and installation of various types of fasteners, gaskets, seals, and lubricants, as well as the installation and adjustment of different types of belt drives, bearings, and couplings. Includes job documentation and customer relations. (Replaces HVC-10121).

HVC 10212 Sheet Metal Duct Systems (F,W,S) 0.7

Covers layout, fabrication, installation, and insulating sheet metal ductwork. Also includes selection and installation of registers, diffusers, dampers, and other duct accessories

HVC 10213 Fiberglass/Flex Duct Systems (F,W,S) 0.2

Covers the layout, fabrication, installation, and joining of fiberglass ductwork and fittings. Describes the proper methods for attaching and supporting flex duct.

HVC 11000 Intro to HVAC (F,W,S) 0.3

Covers the basic principles of heating, ventilating, and air conditioning, career opportunities in HVAC, and apprenticeship programs. (Replaces HVC-10093).

HVC 11001 Trade Mathematics (F,W,S) 0.4

Explains how to solve problems involving the measurement of lines, area, volume, weights, angles, pressure, vacuum, and temperature. Also introduces scientific notation, powers, roots, and basic algebra and geometry. (Replaces HVC-10094).

HVC 11002 Copper and Plastic Piping Practices (F,W,S) 0.2

Covers the selection, preparation, joining, and support of copper and plastic piping and fittings. (Replaces HVC-10096).

HVC 11003 Soldering and Brazing (F,W,S) 0.3

Covers tools, materials, and safety precautions and depicts step-by-step procedures for soldering and brazing piping. (Replaces HVC-10097).

HVC 11004 Ferrous Metal Piping Practices (F,W,S) 0.2

Covers various types of iron and steel pipe and fittings, and provides step-by-step instructions for cutting, threading, and joining ferrous piping. (Replaces HVC-10098).

HVC 11005 Basic Electricity (F,W,S) 0.5

Teaches power generation and distribution, electrical components, DC circuits, and electrical safety. (Replaces HVC-10099).

HVC 11006 Intro to Cooling (F,W,S) 1.2

Covers the basic principles of heat transfer, refrigeration, and pressure-temperature relationships and describes the components and accessories used in air conditioning systems. (Replaces HVC-10100).

HVC 11007 Intro to Heating (F,W,S) 0.6

Covers heating fundamentals, types and designs of furnaces and their components, and basic procedures for installing and servicing furnaces. (Replaces HVC-10101).

HVC 11008 Air Distribution Systems (F,W,S) 0.4

Describes air distribution systems and their components, air flow measurement, ductwork installation principles, and the use of instruments for measuring temperature, humidity, pressure, and velocity. (Replaces HVC-10120).

HVC 14000 Geothermal Heat Pump Systems (F,W,S) 3 (2-2)

This course is designed to teach students the theory, design, installation and maintenance of water source geothermal heating/cooling systems. Theory concepts include open/closed loop systems and lab application with common geothermal systems. Prerequisites: HVC-11005, HVC-11006, HVC-11007 and HVC-10210.

HVC 20300 Refrigerants and Oils (F,W,S) 0.4

Covers characteristics and applications of the current generation of refrigerants, including both pure and blended refrigerants. Also provides extensive coverage of lubricating oils used in refrigeration systems.

HVC 20301 Compressors (F,W,S) 0.6

Explains the operating principles of the different types of compressors used in comfort air conditioning and refrigeration systems, along with basic installation, service, and repair procedures for these compressors. (Replaces HVC-10111).

HVC 20302 Metering Devices (F,W,S) 0.3

Covers the operating principles, applications, installation, and adjustment of the various types of fixed and adjustable expansion devices used in air conditioning equipment. (Replaces HVC-10110).

HVC 20303 Retail Refrigeration (F,W,S) 0.8

Introduces the product refrigeration components and systems, such as the reach-in coolers and freezers commonly used in markets.

HVC 20304 Commercial Hydronic Systems (F,W,S) 0.5

Covers the various types of boilers, components, and piping systems used in commercial heating applications. Also introduces chilled water systems and their components.

HVC 20305 Steam Systems (F,W,S) 0.4

Covers operating principles, piping systems, components, and preventive maintenance requirements of steam systems and steam traps.

HVC 20306 Planned Maintenance (F,W,S) 0.8

Describes the purpose of planned maintenance and outlines the procedures for servicing gas and oil furnaces, electric heating equipment, cooling equipment, and heat pumps. (Replaces HVC-20140).

HVC 20307 Water Treatment (F,W,S) 0.4

Covers the kinds of water problems encountered in heating and cooling systems and identifies various water treatment methods. (Replaces HVC-20132).

HVC 20308 Troubleshooting Electronic Controls (F,W,S) 0.3

Explains how to analyze circuit diagrams for electronic and microprocessor-based controls used in comfort heating and cooling equipment and how to troubleshoot systems that use these controls and equipment. (Replaces HVC-20147).

HVC 20309 Troubleshooting Oil Heating (F,W,S) 0.4

Covers how to identify the common causes of problems in oil furnaces and offers hands-on experience in isolating and correcting oil furnace malfunctions. (Replaces HVC-20143).

HVC 20310 Troubleshooting Heat Pumps (F,W,S) 0.5

Reviews heat pump operation and heat pump control circuits, including how to isolate and correct faults in the heating, cooling, auxiliary heat, and defrost functions of heat pumps. (Replaces HVC-20145).

HVC 20311 Troubleshooting Accessories (F,W,S) 0.4

Provides hands-on lab sessions on how to troubleshoot humidifiers, electronic air cleaners, economizers, zone controls, and heat recovery ventilators. (Replaces HVC-20146).

HVC 20400 Construction Drawing/Specification (F,W,S) 1

Covers how to interpret the various drawings used in commercial construction, including mechanical drawings, specifications, shop drawings, and as-builts and to perform takeoff procedures for equipment, fittings, ductwork and other components. (Replaces HVC-20128).

HVC 20401 Air Properties and System Balancing (F,W,S) 0.8

Covers air properties and gas laws, as well as the use of psychrometric charts. It covers the tools, instruments, and methods used in balancing an air distribution system. (Replaces HVC-20150).

HVC 20402 Indoor Air Quality (F,W,S) 0.6

Defines the issues associated with indoor air quality and its affect on the health and comfort of building occupants. Provides guidelines for performing an IAQ survey and covers the equipment and methods used to monitor and control indoor air quality. (Replaces HVC-20129).

HVC 20403 Energy Conservation Equipment (F,W,S) 0.4

Covers the various heat recovery/reclaim devices, along with other energy recovery equipment used to reduce energy consumption in HVAC systems. (Replaces HVC-20130).

HVC 20404 Building Management Systems (F,W,S) 0.7

Explains how computers and microprocessors are used to manage zoned HVAC systems. This module has been updated to reflect new system architecture, advances in network protocols and systems controllers, and communication via Internet and wireless. (Replaces HVC-20131).

HVC 20406 Heating/Cooling System Design (F,W,S) 1

Identifies and explains the factors that affect heating and cooling loads, describes the process by which heating and cooling loads are calculated, and shows how load calculations are used in the selection of heating and cooling equipment. Covers types of duct systems and their selection, sizing, and installation requirements. (Replaces HVC-20134).

HVC 20407 Commercial/Industrial Refrigeration (F,W,S) 0.9

This module expands the study of product and process refrigeration begun in Level 3. It deals with the type of systems used in cold storage and food processing facilities, as well as transportation refrigeration. (Replaces HVC-20135).

HVC 20408 Alternative Heat/Cool Equipment (F,W,S) 0.4

Covers the variety of alternative devices that are used to reduce energy consumption, including wood, coal, and pellet-fired systems, waste-oil heaters, geothermal heat pumps, solar heating, in-floor radiant heating, and direct-fired makeup units.

HVC 20409 Introduction to Supervisory Skills (F,W,S) 0.5

Along with the principles of project planning, scheduling, and estimating, this module teaches the basic skills required for supervising personnel.

HISTORY (HIS)

HIS 10500 History of World Societies to 1500 (F) 3 (3-0)

This course provides a historical survey of the origins and development of human communities from their prehistoric origins to the 16th century. Emphasis is given to similarities, differences, and interrelationships among selected societies, cultures, and civilizations. Prerequisite or corequisite: ENG-10303. (Humanities Credit)

HIS 10600 Hist of World Societies Since 1500 (W) 3 (3-0)

This course is a historical survey of the human community from approximately 1500 to the present. Emphasis is given to the nature, cause, and consequences of the current phase of global integration. Prerequisite or corequisite: ENG-10303. (Humanities Credit)

HIS 20100 United States History to 1865 (F) 3 (3-0)

This course is a survey of the history of the United States from its European background through the Civil War, with special emphasis on the colonial period and the Revolution, the rise of the federal system of government, the growth of democracy, territorial expansion, sectionalism and the Civil War. Prerequisite or corequisite: ENG-10303. (Humanities Credit)

HIS 20200 United States History Since 1865 (W) 3 (3-0)

A continuation of HIS-20100, this is a survey of United States history from 1865 to the present, starting with the aftermath of the Civil War, emphasizing industrial growth, social changes, and reforms, 20th-century political trends, international commitments, and leadership. Prerequisite or corequisite: ENG-10303. (Humanities Credit)

HIS 20300 Michigan History (F) 3 (3-0)

This course provides a survey of the history of Michigan from the coming of the white man. The history of the state is placed in its regional and national setting. Prerequisite or corequisite: ENG-10303. (Humanities Credit)

HIS 20400 The American Civil War (W) 3 (3-0)

This course examines the origins and outcomes of the sectional conflict that split the United States in two from 1861 to 1865. Emphasis is given to social, political, and military events from the 1840s to the end of Reconstruction. Prerequisite or corequisite: ENG-10303. (Humanities Credit)

HONORS (HON)

HON 225-- Honors Project (V) 1-3

A significant project over and above the typical course requirements which may be undertaken in connection with any regular Kirtland course, the Honors project may involve the student in primary or secondary research, writing, internship, service-learning opportunities, or other possible activities. All proposed honors projects must be approved by the Honors Program committee. Projects may earn from one to three credits. Students may achieve more than three credits in honors projects, but no more than three credits may be applied toward the honors degree. Prerequisites: admission to the Honors Program; permission of the instructor and the Honors Program committee.

HON 250-- Honors Colloquium (W) 3 (3-0)

This is an interdisciplinary course that examines a significant topic or theme. Through such activities as reading, discussion, research, writing, and speaking, students will explore this topic from a variety of academic perspectives. Prerequisites: admission to the Honors Program and sophomore standing, or permission of instructor and the Honors Program committee.

HUMANITIES (HUM)

HUM 20500 The Individual and Society (F,W) 3 (3-0)

This course examines the perspectives of many social sciences and cultures in order to appreciate the mosaic of American and other societies from a variety of points of view. As several key current social issues and controversies are studied, students will work to illuminate an understanding of their own place in their communities, the larger society, and the modern world. Prerequisite or corequisite: ENG-10303. (Humanities Credit)

INDUSTRIAL MAINTENANCE (IND)

IND 11000 Orientation to the Trade (F,W,S) 0.1

Covers the history of the trade, and the kinds of work and work environments industrial maintenance craftspeople would find in the field. Describes the apprenticeship and training programs available, as well as the career opportunities in industrial maintenance. The responsibilities and characteristics a worker should possess are also described.

IND 11001 Tools of the Trade (F,W,S) 0.2

Provides an introduction to the hand and power tools used in industrial maintenance. Covers safety procedures and techniques for use of these tools.

IND 11002 Fasteners and Anchors (F,W,S) 0.2

Covers the hardware and systems used by an industrial maintenance craftsperson. Describes various types of anchors and supports, their applications, and how to install them safely. (Replaces IND-10204)

IND 11003 Oxyfuel Cutting (F,W,S) 0.7

Explains the safety requirements for oxyfuel cutting. Identifies oxyfuel cutting equipment and provides instructions for setting up, lighting, and using the equipment. Includes straight line cutting, piercing, beveling, washing, and gouging. (Replaces IND-10211)

IND 11004 Gaskets and Packing (F,W,S) 0.4

Introduces types of gaskets and gasket material, types of packing and packing material, and types of O-ring material. Explains the use of gaskets, packing, and O-rings, and teaches how to fabricate a gasket. (Replaces IND-20237)

IND 11005 Craft-Related Mathematics (F,W,S) 0.6

Explains how to use ratios and proportions, solve basic algebra, area, volume, and circumference problems, and solve for right triangles using the Pythagorean theorem.

IND 11006 Construction Drawings (F,W,S) 0.5

Introduces plot plans, structural drawings, elevation drawings, as-built drawings, equipment arrangement drawings, P&IDs, isometric drawings, basic circuit diagrams, and detail sheets.

IND 11007 Pumps and Drivers (F,W,S) 0.2

Explains centrifugal, rotary, reciprocating, metering, and vacuum pump operation and installation methods, as well as types of drivers. Also covers net positive suction head and cavitation. (Replaces IND-20239)

IND 11008 Valves (F,W,S) 0.2

Identifies and provides installation methods for different types of valves. Also covers valve storage and handling.

IND 11009 Intro to Test Instruments (F,W,S) 0.3

Introduces the basic test equipment for industrial maintenance, including tachometers, pyrometers, strobe meters, voltage testers, and automated diagnostic tools.

IND 11010 Material Handling & Hand Rigging (F,W,S) 0.6

Introduces the equipment and techniques of material handling, and describes the procedures for rigging and communicating with riggers.

IND 11011 Mobile and Support Equipment (F,W,S) 0.4

Introduces the safety procedures and methods of operation for motorized support equipment, including forklifts, manlifts, compressors, and generators.

IND 11012 Lubrication (F,W,S) 0.5

Explains lubrication safety, storage, and classifications. Also explains selecting lubricants, additives, lubrication equipment, and lubricating charts. (Replaces IND-10222)

IND 12000 Basic Layout (F,W,S) 0.8

Discusses the tools used in layout. Explains how to lay out baselines using the arc method and 3-4-5 method.

IND 12001 Introduction to Piping Components (F,W,S) 0.2

Introduces chemical, compressed air, fuel oil, steam, and water systems. Explains how to identify piping systems according to color codes.

IND 12002 Copper and Plastic Piping Practices (F,W,S) 0.2

Covers the selection, preparation, joining, and support of copper, plastic piping, and fittings. (Replaces IND-10224)

IND 12003 Ferrous Metal Piping Practices (F,W,S) 0.2

Covers various types of iron and steel pipe and fittings and provides step-by-step instructions for cutting, threading, and joining ferrous piping. (Replaces IND-10225)

IND 12004 Identify/Install/Maintain Valves (F,W,S) 0.4

Explains how to remove and install threaded and flanged valves, how to replace valve stem O-ring and bonnet gaskets, and how to repack a valve stuffing box. Also discusses the purpose of valve packing. (Replaces IND-20251)

IND 12005 Hydrostatic & Pneumatic Testing (F,W,S) 0.4

Describes non-destructive and pressure testing of systems and equipment.

IND 12006 Introduction to Bearings (F,W,S) 0.6

Introduces plain, ball, roller, thrust, guide, flanged, pillow block, and takeup bearings. Discusses bearing materials and designations. (Replaces IND-10223)

IND 12007 Low-Pressure Steam Systems (F,W,S) 0.4

Introduces the components and functions of basic steam systems, including boilers, steam traps, and blowdown recovery systems.

IND 12008 High-Pressure Steam Systems (F,W,S) 0.8

Explains the functioning of high-pressure steam systems used in industry.

IND 12009 Distillation Towers and Vessels (F,W,S) 0.8

Introduces the various types and functioning of distillation towers and vessels, including recovery vessels and condensate processing.

IND 12010 Heaters, Furnaces and Cool Towers (F,W,S) 1.2

Introduces the trainee to the equipment used to transfer and remove heat from systems in process.

IND 12011 Introduction to Tube Work (F,W,S) 0.4

Covers the basics of working with heat exchanger and furnace tubing and tube sheets.

IND 23000 Advanced Trade Math (F,W,S) 1.2

Explains right triangle trigonometry and its use in the trade. Also covers interpolation, equilateral and isosceles triangles and the laws of acute triangles.

IND 23001 Precision Measuring Tools (F,W,S) 0.8

Explains how to select, inspect, use and care for levels, feeler gauges, calipers, micrometers, height gauges and surface plates, dial indicators, protractors, parallels and gauge blocks, trammels, and pyrometers. (Replaces IND-20269)

IND 23002 Installing Bearings (F,W,S) 0.8

Explains how to remove, troubleshoot, and install tapered, thrust, spherical roller, pillow block, and angular contact ball bearings. (Replaces IND-20236)

IND 23003 Installing Couplings (F,W,S) 0.6

Identifies various types of couplings, and covers installation procedures using the press-fit method and the interference-fit method. Also covers coupling removal procedures. (Replaces IND-20233)

IND 23004 Setting Baseplates & Prealignment (F,W,S) 1.2

Explains how to lay out and install baseplates and soleplates. Describes how to field-verify a plate installation. Covers precision leveling procedures and performing clearance installation. Also describes basic steps for setting motors and pumps.

IND 23005 Conventional Alignment (F,W,S) 1.2

Covers types of misalignment, aligning couplings using a straightedge and feeler gauge, adjusting parallel and angular alignment, using a dial indicator, and eliminating coupling stress. (Replaces IND-20249)

IND 23006 Installing Belt and Chain Drives (F,W,S) 0.4

Covers the sizes, uses, and installation procedures of six types of drive belts and two types of chain drives. (Replaces IND-20235)

IND 23007 Installing Mechanical Seals (F,W,S) 0.8

Covers function and advantages of mechanical seals, identifies parts and types of seals, and includes procedures for removing, inspecting, and installing mechanical seals. (Replaces IND-20234)

IND 24000 Preventive & Predictive Maintenance (F,W,S) 0.4

Explains preventive and descriptive maintenance and nondestructive testing, and introduces the basic techniques for testing. Also describes lubricant analysis, and acoustic, infrared, and vibration testing. (Replaces IND-20258)

IND 24001 Advanced Blueprint Reading (F,W,S) 1

Describes the use of drawing sets to obtain information about a system; explains the process of identifying a part of a machine for repair or replacement from a set of drawings.

IND 24002 Compressors & Pneumatic Systems (F,W,S) 1.4

Describes theory and practice of compressing and transporting gases. Explains the types and principles of compressors and compressed air treatment equipment, and compressed air use and safety.

IND 24003 Reverse Alignment (F,W,S) 1.2

Describes preparation for dial indicator reverse alignment, and explains the procedures for setting up reverse alignment jigs. Explains graphic and mathematical techniques for aligning equipment, based on reverse dial indicator measurements. (Replaces IND-20259)

IND 24004 Laser Alignment (F,W,S) 1

Describes alignment with laser alignment systems. Explains the use of one system, and uses that system to demonstrate principles. (Replaces IND-20260)

IND 24005 Introduction to Supervisory Skills (F,W,S) 0.6

Describes the skills that must be learned for the craftsperson who plans to move into leadership roles. Introduces human resource criteria and concepts for the first time in the series.

IND 24006 Troubleshooting and Repairing Pumps (F,W,S) 0.4

Explains how to inspect, troubleshoot, disassemble, assemble, and install a pump. Also describes the process of preparing for start-up. (Replaces IND-20262)

IND 24007 Troubleshoot and Repair Gearboxes (F,W,S) 0.8

Describes types and operation of gearboxes, and gearbox diagnostics. Explains how to troubleshoot, remove, and disassemble gearboxes, how to identify gear wear patterns, and how to install and maintain gearboxes. (Replaces IND 20264)

INTERNSHIP/SERVICE LEARNING (CAP)

CAP 20001 Internship / Service Learning (F,W,S) 1

This course can be used for technical elective credits in the M-TEC curricula providing students the opportunity to increase the value of their education through a meaningful work experience. This on-the-job training or community service must be mutually agreed upon with the student, advisor, and worksite designee before work commences. This work experience may be paid, voluntary, or community service oriented.

CAP 20002 Internship / Service Learning (F,W,S) 2

This course can be used for technical elective credits in the M-TEC curricula providing students the opportunity to increase the value of their education through a meaningful work experience. This on-the-job training or community service must be mutually agreed upon with the student, advisor, and worksite designee before work commences. This work experience may be paid, voluntary, or community service oriented.

CAP 20003 Internship / Service Learning (F,W,S) 3

This course can be used for technical elective credits in the M-TEC curricula providing students the opportunity to increase the value of their education through a meaningful work experience. This on-the-job training or community service must be mutually agreed upon with the student, advisor, and worksite designee before work commences. This work experience may be paid, voluntary, or community service oriented.

MANUFACTURING TECHNOLOGY (MPT)

MPT 10272 Machine Tool Safety **0.17**

Safety is the most important concern in the machine shop. This course will give you an overview of safe work practices, safe clothing, personal safety, fire prevention in the shop, hand tool safety, and machinery safety.

MPT 10273 Identifying Surface Finishes **0.08**

This course gives consideration to surface smoothness wherever two machined surfaces come into contact with each other. This packet will help the learner identify factors which contribute to the quality of surface finish and give the learner practice in identifying surface finishes.

MPT 10274 Shop Math - Speeds and Feeds **0.21**

This course will teach the learner how to accurately calculate cutting speeds, RPM, and feeds for the purpose of cutting metal.

MPT 10275 Sharpening Drill Bits **0.25**

In this course the learner will learn how to sharpen a drill bit by hand.

MPT 10276 Drilling on a Press **0.17**

In this course the learner will be taught how to drill holes in a work piece on the drill press.

MPT 10277 Power Tap on the Drill Press **0.25**

In this course the learner will be taught the proper steps and how to power tap on the drill press.

MPT 10278 Drill Press Project **0.58**

In this course the learner will use several drilling operations to complete a drill vise to print specifications.

MPT 10279 Band Saw Blade Welding **0.25**

In this course the learner will develop the skill of welding a band saw blade.

MPT 10280 Vertical Band Saw Project **0.25**

In this course the learner will be taught how to select, mount, cut and weld band saw blades. The student will also learn how to saw pieces to meet specifications.

MPT 10281 Maintaining the Lathe **0.17**

In this course the student will be introduced to the lathe, its basic parts and accessories. The student will also learn lathe safety procedures and maintenance.

MPT 10282 Grinding Lathe Tools **0.25**

In this course the student will learn how to sharpen lathe tools.

MPT 10283 Facing on the Lathe **0.21**

In this course the student will learn how to face the ends of a work piece to a specified length.

MPT 10284 Aligning Lathe Centers **0.17**

In this course the student will learn how to align the centers of the lathe using the trial cut method.

MPT 10285 Cutting External Threads **0.5**

In this course the student will learn about threads and thread forms and how to chase an external thread.

MPT 10286 Dial In Vise/Tram in Head **0.21**

In this course the student will learn the processes of a milling machine.

MPT 10287 Fly Cutter & End Mill/Square Block **0.21**

In this course the student will learn how to square a block of material on all 6 sides.

MPT 10288 Digital Read/Drill, Tap, & Ream **0.25**

This course will teach the learner how to use the digital readout to locate part coordinates to the print specifications.

MPT 10289 Parallel Turning on the Lathe **0.21**

This course will instruct the learner in turning work on the lathe to "rough" and "finish" quality.

MPT 10290 Groove and Part on the Lathe **0.13**

This course will teach the student to cut grooves and cut off stock on the lathe.

MPT 10291 Cutting Internal Threads **0.42**

This course will instruct the student in how to cut internal screw threads.

MPT 10292 Knurling on the Lathe **0.13**

In this course the student will learn how to knurl on the lathe.

MPT 10293 Sharpen End Mills (End) **1**

This student will gain an understanding of the principles of sharpening the ends (of faces) of end milling cutters. This skill will be developed through reading and hands-on practice on a Cutter and Tool Grinding Machine using the associated tools and fixtures.

MPT 10295 Tilt Head and Turn Vise/Cut "V" **0.5**

This course will instruct the learner how to turn the swivel vise to cut a 30 degree "V" with a .250 radius and then tilt the head to cut a 90 degree "V" in a block of C.R.S. (Cold Rolled Steel), also referred to as "Mild Steel" or "Machine Steel."

MPT 10296 Turntable/Cut Radii **0.33**

This course will show the student how to "set-up" the turntable and cut radii.

MPT 10297 Sine Plate/Cut Angles **0.33**

This course will show the student how to use the sine plate accessory to cut angles on a piece of steel using the vertical milling machine.

MPT 10298 Boring Head/Bore 4 Holes **0.33**

This course will show how to use the boring head to bore holes into a piece of steel using the lay-out drilling machine (also called a "Jig Borer").

MPT 10299 Indexing Head/Key Ways **0.17**

This course will show the student how to use the indexing head to cut keyways and keyseats with a vertical milling machine. The indexing head locks in increments of 15 degrees with the locating pin, but can be set and locked at any degree with the lever lock.

MPT 10302 Square and Block (6 Sides) **0.25**

This course will teach the student safety precautions pertaining to grinders; how to select a grinding wheel, how to care for a grinding wheel; how to dress a grinding wheel; how to grind a magnetic chuck; how to grind a block square to print tolerances.

MPT 10303 Grind Angles and Radii **0.5**

This course will teach the student how to grind angles on a part by using a sine bar/sine plate; how to grind angles on a part by forming the grinding wheel; how to grind internal and external radii on a part by forming the grinding wheel with a radius dresser.

MPT 10304 Parallel Grind to Print **1**

This course will teach the student the proper way to parallel grind (on cylindrical grinders) by completing projects to print specifications.

MPT 10305 External/Internal Tapers **0.5**

This course will teach the student the proper way to grind external and internal tapers on a cylindrical grinder by completing two projects to print specifications within tolerance.

MPT 10306 CNC Fundamentals **0.83**

This module will provide the learner with knowledge of Computer Numerical Control (CNC) terminology and concepts.

MPT 10308 Micrometer **0.13**

This course will teach the student how to read micrometers, care for micrometers, name the parts which make up micrometers, know the different types of micrometers, and know the "feel" involved when using contact measuring tools.

MPT 10309 Calipers: Digital, Vernier, Dial **0.17**

This course will teach the student how to read calipers, how to care for calipers, the names for parts which make up callipers, and the "feel" involved when using contact measuring tools.

MPT 10310 Telescoping Gage **0.13**

This course will teach the learner the proper way to accurately measure holes using a telescoping gage.

MPT 10311 Depth Micrometer **0.13**

This course will teach the student to measure the depths of holes and steps with a depth micrometer within +/- .001.

MPT 10312 Dial Indicators **0.13**

This course will teach the student to use the dial indicator correctly in a machining environment.

MPT 10313 Gage Blocks **0.13**

This course will introduce the learner to and help use gage blocks.

MPT 10314 Machine Shop Trigonometry **0.67**

This course will instruct the learner in identifying different math procedures and calculations using trigonometry to solve problems.

MPT 10315 Height Gage **0.17**

This course will provide the learner with practice using a height gage.

MPT 10316 Sine Bar **0.17**

The sine bar is used to establish or check angles when an accuracy of 5 minutes or less is required. This course will teach the learner to use the sine bar for precision measurement of angles.

MPT 20319 Prop of Metals/Physical Metallurgy **0.13**

This course will instruct the learner in examining and identifying the different properties of metals and their applications for different jobs.

MPT 20320 Constitution of Alloys **0.17**

This course will instruct the learner in examining and studying the purpose of alloys in a given material.

MPT 20321 Carbon and Alloy Steels **0.13**

This course will teach the student the range of possible types of steels, their properties, and their uses.

MPT 20322 Heat and Surface Treat for Steel **0.13**

This course will instruct the learner in examining and studying the heat treat process and what it does to metals properties.

MPT 20323 Cast Irons **0.13**

This course will instruct the learner in examining and identifying what makes cast iron desirable for machining and construction purposes.

MPT 20324 Light Metals and Alloys **0.13**

This course will provide the learner with knowledge of light metals and alloys and their applications.

MPT 20325 Lead, Tin, and Zinc **0.13**

This course will provide the learner with knowledge of lead, tin, and zinc, their properties, and their applications.

MPT 20326 Introduction to Metallurgy **0.46**

This course will assist the welding student in developing a solid background in metallurgy.

MPT 20327 Examining and Identifying Metals **0.13**

This course will provide information that the learner may use to examine and identify the metal being welded.

MPT 20328 Fund of Welding & Brazing/Casting **0.13**

This course will provide information that the student may use to examine and identify cast iron.

MPT 20329 Fund of Welding Stainless Steel **0.13**

This course will provide information that the student may use to examine and identify stainless steel.

MPT 20330 Testing Metals **0.42**

This course will instruct the student in examining and identifying different inspection methods and metal processes.

MPT 20371 Precision Vise **2.08**

This course will prepare you to demonstrate all of the machining skills needed to produce a precision vise that meets print specifications.

MPT 20372 1-2-3 Blocks **1**

This module will instruct the learner in all of the machining skills needed to produce 1-2-3 blocks.

MPT 20373 Tool Makers V-Blocks **1.67**

This module will instruct the learner in all of the machining skills needed to produce Toolmakers V-Blocks.

MPT 20399 Sharpen End Mills (Sides) **1**

In this course the student will gain an understanding of the principles of sharpening the sides (or periphery) of end milling cutters.

MARKETING (MKT)

MKT 11000 Prin of Selling (F) 3 (3-0)

This course covers principles and techniques employed by successful salesmen, with emphasis on how to sell rather than how to manage.

MKT 11500 Customer Relations (W) 3 (3-0)

This course examines the role of Customer Relations in the economy with emphasis on customer relations in business and organizations that have considerable dealings with the public. The class addresses the four C's of excellent customer service, dealing with difficult people, handling angry customers, developing service strategies, customer service habits to develop, do's and don'ts of customer service, customer service on the web, and culminates with the student's development of a customer relations policy and program for their 'chosen' organization.

MKT 20000 Principles of Marketing (F) 3 (3-0)

This course covers the managerial approach to the marketing process. This includes marketing and business management, the role of the consumer, marketing structure, merchandising, support functions, and product flow.

MKT 20100 Prin of Retailing (F) 3 (3-0)

This course emphasizes the theory of retailing and its application to business problems. The course covers retail structure, consumer analysis, store operation (organization, management, and control), personnel, merchandising, and sales promotion. Students are required to complete a retail store plan.

MKT 20200 Internet Marketing (W) 3 (3-0)

This course focuses on marketing in electronic environments primarily on the Internet, on one or more of its services (WWW, email), or offline by enterprises that produce and sell Internet-related products. The focus is on the synergy created when traditional marketing is performed in electronic environments and greatly reduce or eliminate time and space constraints, facilitate personalization and customization and allow the interoperability of computers and other devices.

MKT 20400 Advertising (W) 3 (3-0)

This course addresses the social value of advertising and its role in marketing. Analysis of behavioral scientists' findings in regard to customer appeals and motivations, window display techniques, and principles of advertising copy and layout are conducted.

MKT 21000 Market Research (V) 3 (3-0)

This course is designed to introduce the student to the problem-oriented nature of marketing research. Emphasis is given to how marketing research activities are actually implemented by professional marketing researchers. Students will be encouraged to involve themselves in a research project. Prerequisite: sophomore status or permission of advisor.

MATHEMATICS (MTH)

MTH 06300 Basic Mathematics (F,W,S) 4

Mathematical concepts involving whole numbers, fractions, decimals, percents, proportions, measurement, geometry, and elementary algebraic operations will be taught.

MTH 07300 Basic Algebra (F,W,S) 4

The fundamental operation of algebra using integers and rational numbers, exponents, linear equations, word problems, special products, factoring, and graphing of straight lines will be taught. A graphing calculator is required. Prerequisite: MTH-06300 or required COMPASS test scores.

MTH 07400 Basic Algebra Lab (F,W,S) 1

This course provides instructional support for Basic Algebra (MTH-07300). Students will receive homework support and supplemental instruction. Corerequiste: MTH-07300 Basic Algebra.

MTH 11700 Mathematics / Elementary Teachers I (F) 3 (3-0)

A Mathematical course designed for prospective elementary teachers and for non-mathematics majors in the liberal arts curriculum. The course covers the modern concepts of mathematics taught in grades K-8. It places emphasis on set theory, problem-solving, numeration systems, operations on natural numbers and rational numbers, elementary number theory, and exercises using manipulatives. Prerequisite: ENG-10303. Corequisite: MTH-12000. (Math Credit)

MTH 12000 Intermediate Algebra (F,W,S) 4 (4-0)

This course includes the study of the properties of real numbers, basic concepts of algebraic operations, solving and graphing linear and nonlinear functions, systems of equations, complex numbers, quadratic functions, factoring, rational expressions, and basic interpretations of tables and graphs of data. A graphing calculator is required. Prerequisite: requisite COMPASS test scores or MTH-07300. (Math Credit)

MTH 13000 College Algebra (F,W) 4 (4-0)

This is a one semester course designed to prepare students for the study of calculus. The topics to be covered include review of the fundamentals of algebra, relations, functions, solutions, of first- and second degree equations and inequalities, systems of equations, determinants, binomial theorem, mathematical induction, polynomial functions and theory of equations, analytic geometry and conic sections, geometric and arithmetical sequences and series, and miscellaneous topics. Calculators will be used for selected topics. Prerequisite: MTH-12000 or requisite COMPASS test scores. (Math Credit)

MTH 14000 Trigonometry (F,W) 3 (3-0)

This course includes the study of functions and their graphs, trigonometric functions, analytic trigonometry, applications of trigonometric functions, parametric and polar functions, vectors, and analytic geometry. Prerequisite: MTH-12000 or requisite COMPASS test scores. (Math Credit)

MTH 20600 Application in Statistics (F,W) 4 (4-0)

This is an introductory course in statistics for any field in which the collection, analysis, interpretation, and presentation of numerical data are important. Topics include organization of data, types of distributions (binomial, normal, student t, chi-square), sampling, testing of hypotheses, confidence intervals, correlation, and regression. Additionally, the students will choose a project that will allow them to gain experience and demonstrate understanding of some of the statistical techniques or methods. A calculator is required. Computer software will be utilized. Prerequisite: MTH-12000 or higher. (Math Credit)

MTH 21700 Mathematics/Elementary Teachers II (W) 3 (3-0)

The second mathematical course designed for prospective elementary teachers and for non-math majors in the liberal arts curriculum. The course covers Decimals, percent, ratio/proportions, geometry (concepts and measurement), probability, statistics, introduction to Algebra, and exercises using manipulatives. Prerequisites: ENG-10303 and MTH-12000.

MTH 22002 Calculus I (F) 4 (4-0)

This is the first of a three-semester sequential course in analytic geometry and calculus. Topics include functions, limits, continuity, derivatives, integrals, and their applications. A graphing calculator is required. Prerequisite: MTH-13000 and MTH-14000; or requisite COMPASS test scores. (Math Credit)

MTH 22102 Calculus II (W) 4 (4-0)

This course is a continuation of MTH-22002. Topics include applications of integration, techniques of integration, L'Hopital's Rule, improper integrals, infinite series, conic section, plane curves, parametric equations, and polar coordinates. A graphing calculator is required. Prerequisite: MTH- 22002. (Math Credit)

MTH 22202 Calculus III (V) 4 (4-0)

This course is a continuation of MTH-22102. Topics include vector-valued functions, functions of several variables, multiple integration, and vector analysis. A graphing calculator is required. Prerequisite: MTH-22102. (Math Credit)

MTH 23000 Differential Equations (V) 4 (4-0)

This course includes the study of exact solutions of common types of first-order ordinary differential equations, linear equations of higher order, power series solutions, Laplace transforms, linear systems including matrix methods, graphical and numerical techniques, and applications of differential equations. Prerequisite: MTH-22102. (Math Credit)

MUSIC (MUS)

MUS 10100 Music History & Appreciation (F) 3 (3-0)

This course is a guide to listening, with emphasis on understanding and experiencing the fundamentals of music to increase the enjoyment and knowledge of music and to cultivate the art of intelligent and perceptive listening. Prerequisite or corequisite: ENG-10303. (Humanities Credit)

MUS 10400 Piano I (W) 3 (1.5-1.5)

This course is designed for group instruction on electronic piano. It will develop proficiency in piano playing in students who have had no experience at the keyboard. Other musical experience such as MUS-10100 is helpful but not essential. (Humanities Credit)

MUS 10802 Contemp Acoustic Guitar Styles I (F) 2 (1-1)

This class will teach beginners in an ensemble setting the basics of guitar styles used by today's musicians. Students will learn strumming and picking techniques along with simple major, minor and 7th chords that will allow them to accompany themselves and/or others. (Humanities Credit)

MUS 10901 Contemp Acoustic Guitar Styles II (F) 2 (1-1)

This class is a continuation of MUS-10802 and will teach more advanced chords, strumming and picking techniques, along with more complex chord progressions. Both rhythm and lead techniques are taught in an ensemble setting. Prerequisite: MUS-10802 or permission of instructor. (Humanities Credit)

MUS 11500 Beginning Voice (F) 3 (3-0)

This course provides classroom instruction in singing and vocal technique, including posture breathing, tone, song preparation, and performance. Some individual instruction, choral training, and general musicianship are also provided. The course is required of all students seeking a concentration in acting. (Humanities Credit)

MUS 12300 Jazz History & Appreciation (W) 3 (3-0)

This course is an in-depth study of America's only original art form through a historical and social perspective beginning with Blues and including Dixieland, swing, BeBop, and modern jazz. (Humanities credit)

MUS 27503 DS-Intermediate Voice (F) 3 (3-0)

This course is a continuation of MUS-11500. It provides classroom instruction in singing and vocal technique, including articulation, resonance, vocal health, vocal problem-solving, and performance. Some individual instruction, choral training, and general musicianship are also provided. Prerequisite: MUS-11500 or permission of instructor. (Humanities Credit)

NURSING (NUR)

NUR 10300 Nursing Essentials (V) 2 (2-0)

A course designed to facilitate student success and progression in the nursing program and prepare Level I Nursing students for success in the pharmacology course. Prerequisite: admission into the Level I nursing program.

NUR 10502 Foundations of Nursing (V) 3 (3-0)

This is the basic course in the nursing curriculum, which provides the foundation upon which other courses will build and expand. It is designed to introduce the beginning nursing student to the philosophy and objectives of practical nursing. Content includes the scientific principles and skills concerned with basic nursing practice, with emphasis on areas of nursing skills in respect to safety, comfort, coping, and adaptation. The student is introduced to the nursing process, basic communication skills, general assessment, death and dying, and spiritual and transcultural issues. Prerequisite: admission into the nursing program.

NUR 10700 Mental Health Concepts (V) 1 (1-0)

This course is designed to assist the student nurse to develop knowledge and skills in providing basic psychiatric nursing care. The student will achieve psychosocial adaptation competencies in assisting the client with an acute or chronic mental illness, substance abuse issue, or crisis/violence need. Students will apply scientific process to problem solve client's needs. Prerequisite: admission into the nursing program.

NUR 10803 Nursing Practice Lab (V) 3 (0-4)

This course consists of guided learning lab practice. The focus is acquisition of basic nursing skills. Prerequisite: admission into the nursing program.

NUR 10804 Nursing Clinical I (V) 2 (0-6)

This course consists of guided learning clinical experience in selected health care facilities/settings. Emphasis is placed on the principles and activities concerned with basic nursing techniques that are common to the client within the health care facility. Prerequisite: admission into the nursing program.

NUR 10900 Pharmacology I (V) 2 (2-0)

A course designed to introduce the nurse to advanced concepts of drug therapy, principles and methods of drug administration and related nursing activities and responsibilities. The course is based on the pharmaco/physiological concept. Continual association to clinical experience and physiology principles serve as the foundation of the course. Prerequisite: Admission into the Nursing program. Corerequisite or Prerequisite: NUR-10300 Nursing Essentials.

NUR 12304 Nursing Clinical II (V) 5 (0-15)

This is a clinical course designed to introduce the student to basic concepts of using the nursing process to deliver care to adults with well-defined nursing diagnoses. Safe administration of medications will be integrated. Medical, surgical, and physiology principles serve as the foundation for the course. Application will occur in selected acute care and community sites. Prerequisite: admission into the nursing program.

NUR 12503 Adult Medical-Surgical Nursing (V) 4 (4-0)

This course introduces students to concepts focusing on how the adult responds to alterations in health. Emphasis is placed on using the nursing process as the student explores disease entities and the physiological responses of the body to these problems. This course presumes a basic understanding of normal anatomy and physiology, nutrition, and nursing foundations. Prerequisite: admission into the nursing program.

NUR 12800 Maternal-Child Nursing Care (V) 2 (2-0)

This course is designed to introduce the student to the concepts of obstetrical/pediatric nursing care. The course will include the health concerns confronting the following populations: women, pregnant client, the infant, child, and adolescent and their families, caretakers, and the community. The course presumes a basic understanding of normal anatomy and physiology. Basic concepts and principles of growth and development from conception through infancy, childhood and adolescence will be integrated throughout. Nutritional needs of these client groups and variations of diet therapy will be included. Prerequisite: admission into the nursing program. Corequisite: NUR-12304.

NUR 13302 Current Issues in Nursing (V) 1 (1-0)

This is a course designed to emphasize the responsibilities and concerns associated with a graduate practical nurse. The course will focus on employment opportunities, continuing education, professional issues, and role. Prerequisite: admission into the nursing program.

NUR 13402 Nursing Clinical III (V) 2 (0-6)

This course consists of guided learning clinical experience in selected health care facilities. Continued emphasis is placed on meeting the biopsychosocial developmental needs of the client. Role transition to graduate status is fostered. Prerequisite: admission into the nursing program.

NUR 20900 Pharmacology II (V) 2 (2-0)

A course designed to introduce the nurse to advanced concepts of drug therapy, principles and methods of drug administration and related nursing activities and responsibilities. The course is based on the pharmaco/physiological concept. Continual association to clinical experience and physiology cellular principles will be emphasized through the course. This course is designed to continue the concepts of Pharmacology I. Prerequisite: NUR-10900.

NUR 22001 Nursing Assessment (V) 3 (3-0)

This course is designed to explore the nursing process in depth as a foundation for professional nursing practice. Methods for eliciting a sound health history and techniques for physical assessment will be introduced as a means of providing essential information for care planning. This course is designed to build on previous knowledge of the body's anatomy and physiology. Prerequisite: BIO-23600, admission into the Level II nursing program, or permission of department.

NUR 22201 Critical Thinking in Adult Care (V) 5 (5-0)

This is a critical thinking course designed to aid the students in the use of the nursing process as it relates to adult clients with acute, chronic, and multiple health care problems. Emphasis is on a holistic approach that focuses on the adaptation of clients and significant others to alterations in the wellness-illness continuum and nursing's role in this process. Prerequisite: admission into the Level II nursing program, or permission of department.

NUR 22300 Adult Nursing Clinical (V) 5 (0-15)

This course provides the student with clinical experiences that emphasize care for adult clients with acute and chronic health care problems. Nursing interventions focus on meeting the needs of clients with multiple health problems from a holistic perspective-wellness to illness. Application of theory to practice is critical to the learning process of students in this course. Prerequisite: admission into the Level II nursing program, or permission of department.

NUR 23200 Family Centered Pediatrics (V) 2 (2-0)

This is a lecture course regarding applying the nursing process to pediatric clients and their families. The student will learn to facilitate the child and family in building, mobilizing, and using their resources in health promotion and maintenance, and managing illness. Prerequisite: admission into the Level II nursing program, or permission of department.

NUR 24201 Community Mental Health Nursing (V) 2 (2-0)

This is a course designed to develop knowledge to provide psychiatric nursing care to select clients in the hospital or community who demonstrate patterns of maladaptive behavior. The student will explore methods of prevention, maintenance, and treatment of individuals with a mental illness. Prerequisite: admission into the Level II nursing program, or permission of department.

NUR 24302 Community Mental Health Clinical (V) 1.5 (0-4.5)

Hospital and community clinical experiences are utilized to provide students opportunities to apply the nursing process to clients with maladaptive behavior. The focus is on one-to-one interpersonal relationships through which the nursing process is applied and analyzed. Prerequisite: admission into the Level II nursing program, or permission of department.

NUR 24600 Nursing Care of Women & Families (V) 2 (2-0)

This course is designed to assist the student in applying the nursing process in giving care to women, newborns, and their families, primarily during the period of childbearing. This course focuses on home care, complications of childbearing, and reproductive health. Emphasis is placed on the nurse's role in disease prevention, health promotion and maintenance, and teaching. Prerequisite: admission into the Level II nursing program, or permission of department.

NUR 24900 Pediatric/Women's Health Clinical (V) 1.5 (0-4.5)

The focus of this clinical course is to aid the student in applying the nursing process to the needs of obstetrical, female, newborn, and pediatric families. Nursing intervention in assisting the client and family to promote maximum holistic health through continuous adaptation, growth, and development in their responses to illness and stress is demonstrated. Emphasis is placed on the nurse's role of nurturing and facilitating the obstetrical, female, newborn, child, and families in building, mobilizing and using their resources in health promotion, health maintenance and managing illness. This course presumes the student has previously attained a basic level of clinical experience in obstetrical, female, newborn, and pediatric nursing and is designed to build upon that experience base. Application of obstetrical, female, newborn and family-centered pediatrics nursing care will occur in selected hospital or community based settings. Prerequisite: admission into the Level II nursing program. Corequisite: NUR-23200 and NUR-24600.

NUR 25201 Professional Practice (V) 2 (2-0)

This course is designed to assist the transition of the student nurse to graduate nurse. Professional nursing behaviors and attitudes are explored. Health care systems, nursing personnel and roles, staffing, and other professional issues are examined and evaluated. Prerequisite: admission into the Level II nursing program, or permission of department.

OFFICE INFORMATION SYSTEMS (OIS)

OIS 10100 Basic Keyboarding (F,W,S) 1

This course is for those who have not had any previous keyboarding instruction.

OIS 10401 Keyboarding I-A (F,W,S) 1

Students will be using a microcomputer and appropriate software to develop touch-type operation of the keyboard and drill work to develop their keyboarding skills.

OIS 10402 Keyboarding I-B (F,W,S) 1

Students will be using a microcomputer and appropriate software to develop touch-type operation and basic skills in keyboarding, including the numeric keypad and the ability to prepare memorandums and business letters. Review and drill work are also incorporated into the course.

OIS 10403 Keyboarding I-C (F,W,S) 1

Students will be using a microcomputer and appropriate software to develop basic skills in keyboarding, including touch-type operation of the keyboard, and the ability to prepare simple business letters, reports, manuscripts, and outlines. Review and drill work are available for those students who have previously developed some keyboarding skill.

OIS 10500 Business Correspondence (F,W,S) 3

Detailed examination of methods of communication in business. Instruction and practice in writing and constructing rough drafts, finished letters and forms used in business. Includes grammatical and mechanical foundation for preparing business correspondence with emphasis on successful human relations. Employability skill, including letters of appreciation, application forms, and interview techniques are presented. The course also includes a documented research paper. Prerequisite: ENG-10303.

OIS 10600 Intro to Health Information Systems (F,W,S) 3

This course is designed to introduce the student to health information systems from a broad view of the health care industry to the basic elements of health information technology, through the physician's office, acute care setting, and other health care environments. A complete integration of computer-based terminology and concepts will be addressed as it relates to health information technology. The course includes the practical application of various health information functions.

OIS 10701 Medical Office Transcription-A (F,W,S) 1

This introductory course is designed to expose the student to the beginning stages of medical transcription. The student will learn the different tools of transcription, how to operate the different types of dictation and transcription equipment, how to use the reference materials in terms of punctuation and transcribing numbers. Basic transcription will be introduced. Corequisites: ALH-10101 and OIS-11401 OR OIS-18201; or permission of advisor.

OIS 10702 Medical Office Transcription-B (F,W,S) 1

This course is designed to expose the student to formatting transcription letters and to developing proofreading skills. Guidelines will be introduced for style, grammar, and specific medical transcription mechanics such as editing, spelling, and formatting of medical reports. Intermediate transcription skills will be developed upon completion of this course. Prerequisites: OIS-10701.

OIS 10703 Medical Office Transcription-C (F,W,S) 1

This course exposes the student to identifying the various mechanical formats used to prepare the diverse medical reports used in transcribing. Upon completion of this course, the student will be typing reports, memos, minutes, and agendas. Advanced transcription skills will be developed upon completion of this course. Prerequisites: OIS-10702.

OIS 10800 Medical Transcription I (F,W,S) 3

Transcription of authentic physician-dictated reports organized by body systems or medical specialties. Emphasis on development of accuracy, speed, and medical knowledge for transcription of letters, chart notes, history and physical examination reports, consultations, emergency room reports, operative reports, discharge summaries, laboratory reports, diagnostic studies, radiology and pathology reports. Using reference materials and other resources efficiently. Editing and proofreading techniques. Grammar and punctuation review. Prerequisites: ENG-10303 and OIS-10703.

OIS 11201 Business Calculations (F,W,S) 3

The student will learn how to add, subtract, multiply, and divide to complete various business application problems using an electronic calculator and the microcomputer ten-key pad.

OIS 11300 Medical Coding I (F,W) 3

This course includes the study and practical application of coding medical diagnoses and procedures from medical record documentation using CPT-4 coding systems. The student will review medical records to identify the key components of documentation that are used in the coding and documentation process. Prerequisite: ALH-10101.

OIS 11401 Keyboarding II-A (F,W,S) 1

This course is designed to increase speed and accuracy in the preparation of keyed projects. The student will be introduced to memorandums and e-mail, personal and business letters, and tables. Prerequisite: OIS-10403 or permission of advisor.

OIS 11402 Keyboarding II-B (F,W,S) 1

This course is designed to increase speed and accuracy in the preparation of business reports and letters. The student will be introduced to various letter styles, forms, manuscripts, and tabulation problems. Prerequisite: OIS-11401.

OIS 11403 Keyboarding II-C (F,W,S) 1

This course is designed to increase speed and accuracy in the preparation of business reports and letters. The student will be introduced to various letter styles, forms, manuscripts, and tabulation problems. Prerequisite: OIS-11402.

OIS 11500 Medical Billing & Coding (F,W) 3

This course provides students with the knowledge and skills necessary to perform the duties of an Insurance Billing Specialist. This includes reviewing and completing health insurance forms properly and accurately abstracting with the appropriate diagnoses and procedure codes. Students will prepare and organize patient charts, bills, ledgers, and encounter forms. Prerequisite: ALH-10101 or permission of advisor.

OIS 17000 Legal Terminology & Transcription (F,W) 3

This course is designed to give the student a background in basic legal terminology including spelling, pronunciation, and meaning. The student will develop transcription skills by transcribing from taped dictation documents dealing with the courts, legal systems, and litigation procedures. Prerequisites: ENG-10303 and OIS-10403. Corequisites: OIS-11401 or higher.

OIS 18201 Word Processing I-Word-A (F,W,S) 1

This course is designed to provide students with a knowledge of word processing concepts, equipment, and the ability to perform word processing operations using a word processing system. The student will perform basic word processing functions including inputting, formatting, editing, and printing.

OIS 18202 Word Processing I-Word-B (F,W,S) 1

This course is designed to provide students with a knowledge of word processing concepts, equipment, and the ability to perform word processing operations using a word processing system. The student will perform basic word processing functions including inputting, formatting, editing, saving, retrieving, creating, printing, maintaining files, using writing tools, using tabs, and manipulating text. Prerequisite: OIS-18201.

OIS 18203 Word Processing I-Word-C (F,W,S) 1

This course is designed to provide students with a knowledge of word processing concepts, equipment, and the ability to perform word processing operations using a word processing system. The student will perform basic word processing functions including inputting, formatting, editing, printing, maintaining files, using writing tools, using tabs, and manipulating text. Prerequisite: OIS-18202.

OIS 19001 Machine Transcription-A (F,W,S) 1

This is an introductory course, which teaches the basic skills needed to operate a transcribing machine. Emphasis is placed on listening skills, proofreading, and applying the principles of correct grammar to the transcription of letters and memorandums. Prerequisites: ENG-10303. Corequisites: OIS-11401 OR OIS-18201.

OIS 19002 Machine Transcription-B (F,W,S) 1

This intermediate course introduces dictation of documents requiring document-formatting decisions. Emphasis continues to be placed on listening skills, use of proper punctuation, and accurate proofreading techniques. Prerequisites: OIS-19001.

OIS 19003 Machine Transcription-C (F,W,S) 1

This course requires the student to apply the basic skills acquired in OIS-19001 and OIS-19002 to dictation of increasing difficulty. Grammar, spelling, formatting, and editing decisions will be more challenging. Prerequisites: OIS-19002.

OIS 20501 Records Management-A (F,W,S) 1

This course is an introduction to the basic principles, procedures, and methods of records storage, control, retrieval, and management. Practical applications of manual filing are utilized to assist students in mastering the rules and principles of alphabetic filing.

OIS 20502 Records Management-B (F,W,S) 1

This course expands on the introductory course by reviewing the basics of alphabetic filing through additional practical applications. Emphasis is placed on procedures for efficient records retention, retrieval, and transfer procedures. Prerequisite: OIS-20501.

OIS 20503 Records Management-C (F,W,S) 1

This course provides the student with advanced training in records management, which includes principles and practical applications of subject, numeric, and geographic filing. For enhancement of records management techniques, an interview with a records manager in an off-campus business will be conducted by the student. Prerequisite: OIS-20502.

OIS 20600 Medical Transcription II (F,W,S) 3

This course will expand the transcription skills of the student by the use of dictation in the specialty areas of medicine and will include dictation by heavily accented English-speaking people. The students will further develop their skill in efficient usage of reference materials.

OIS 20700 Medical Transcription III (F,W,S) 3

This machine transcription course will required the student to develop an employable production speed while transcribing a variety of medical documents dealing with the specialty areas of medicine and advanced terminology. Dictation by persons with foreign accents will be incorporated into this class.

OIS 21000 Office Procedures (F,W,S) 3

This course provides the application and combination of previously learned skills. It introduces the application of standard office procedures and practices. Emphasis is on the production of quality materials suitable for actual use, with further emphasis on the development of acceptable personal attitudes and personality. The course also includes a review of employability skills. Prerequisites: ENG-10303, OIS-11403, OIS-18203 and OIS-19003.

OIS 21100 Medical Office Procedures (F,W,S) 3

This course is a concentrated application of various tasks that a medical clerk/secretary performs, including administrative responsibilities, preparing and organizing patient charts, medical ethics and law, Internet projects, telephone procedures, appointments, and records management. The use of the computer is emphasized in each of these applications. Prerequisites: ALH-10101 and ENG-10303.

OIS 21300 Medical Coding II (F,W,S) 3

This course includes the advanced study and practical application of coding medical diagnoses and procedures from medical record documentation using ICD-9-CM and CPT-4. The student will achieve a thorough understanding of the impact of coding on all aspects of the reimbursement process. Prerequisite: OIS-11300.

OIS 21400 Keyboarding III (F,W,S) 3

This course provides application and study in the preparation of common and specialized letters, business forms, legal papers, and correct office methods and procedures. Also, typing of specialized forms in accounting, government, and professional and technical fields is taught. Prerequisite: OIS-11403 and OIS-18203.

OIS 21500 Desktop Publishing for the Office (F,W,S) 3

This is a course designed to study the technology of desktop publishing. A word processing program will be used to create documents such as reports, brochures, advertisements, newsletters, flyers, and correspondence. Advanced features will also be taught; therefore, the student will acquire a skill that is valuable in both small and large offices. Prerequisites: CIS-10500 and OIS-22200; or permission of advisor. Corequisites: OIS-11403.

OIS 22100 Office Pharmacology (W) 2

This course is designed for the medical secretary or transcriptionist and will focus on drugs prescribed and/or dispensed in the office setting, patient instructions, reporting reactions, and storage. Emphasis will be placed on correct spelling and transcription of prescribed medications. Prerequisites: ALH-10101 and BIO-10700 or permission of advisor. Prerequisite or corequisite: ALH-11201.

OIS 22200 Word Processing II-Word (F,W,S) 3

This course is designed to provide advanced applications of the word processing system and program used in OIS-18203. The student will demonstrate proficiency in advanced word processing applications including power typing, creation of documents, and enhancement to promote efficiency. Prerequisite: OIS-18203.

OIS 22500 Legal Office Procedures (F,W) 3

This course is designed to provide students with fundamental concepts of American jurisprudence, and practical application of tasks that will be required in a legal office setting. Prerequisites: BUS-10100, BUS-21500, and OIS-17000 with a grade of "C" or better. Corequisites: OIS-11403.

OIS 24101 Internship-Administrative Asst (F,W,S) 3

The externship consists of 128 hours of directed office work experience consisting of supervised secretarial duties in a suitable office facility either on or off campus. Prerequisites: completion of all courses required for program, a GPA of 2.0 or better, and permission of advisor.

OIS 24102 Internship-Legal Secretary (F,W,S) 3

The externship consists of 128 hours of directed office work experience consisting of supervised legal secretarial duties in a suitable legal office. Prerequisites: completion of all courses required for program, a GPA of 2.0 or better, and permission of advisor.

OIS 24103 Internship-Medical Secretary (F,W,S) 3

The externship consists of 128 hours of directed office work experience consisting of supervised medical secretarial duties in a suitable medical facility. Prerequisites: completion of all courses required for program, a GPA of 2.0 or better, and permission of advisor.

OIS 24106 Internship-Medical Transcription (F,W,S) 4

This externship consists of coordinated, directed, on-site training under the supervision of a qualified medical record administrator in an office specializing in medical transcription. The externship will involve 144 hours of work experience transcribing the basic four reports (history and physical, consultation, operative report, and discharge summary), as well as other specialty area transcription. A transcription project will be developed along with a transcription procedures manual. Prerequisites: completion of all courses required for program, a GPA of 2.0 or better, and permission of advisor.

OIS 24107 Internship-Adv Word Processing Spec (F,W,S) 3

The externship consists of 128 hours of directed office work experience consisting of supervised advanced word processing duties in a suitable facility. Prerequisite: completion of all courses required for program, a GPA of 2.0 or better, and permission of advisor.

OIS 24108 Internship-Medical Clerk (F,W,S) 3

The externship consists of 128 hours of directed office work experience consisting of supervised medical office assistant duties in a suitable medical facility. Prerequisite: completion of all courses required for program, a GPA of 2.0 or better, and permission of advisor.

OIS 24109 Internship-Medical Billing/Coding (F,W,S) 4

The externship consists of 144 hours of directed office work experience consisting of supervised billing and coding duties in a suitable medical facility. Prerequisite: completion of all courses required for program, a GPA of 2.0 or better, and permission of advisor.

OUTDOOR POWER ENGINES (OPE)

OPE 10001 Two & Four Cycle Engines Level 1 (F,W) 3 (1-3)

Students will be able to identify basic engine parts as single components or as assemblies. Students also will explain the overall function of the engine including components, function, identification, and purpose. The class also includes hand tool identification, measurement tools functions, and minor removal and installation of certain components on the engine.

OPE 11032 Two & Four Cycle Engines Level 2 (F,W) 3 (1-3)

Students will be able to identify basic engine problems, diagnose or troubleshoot and correct or repair. Students will also perform preventative maintenance measured on engines and tune-up engines, gearboxes, and transaxles before failure occurs in these components. Prerequisite: OPE-10001.

OPE 14000 Small Engine Electricity (F,W,S) 3 (2-2)

This electrical course is designed to teach students basic electrical theory, fundamentals of batteries, electrical components, wiring systems, and the use of electrical test equipment. Prerequisites: MTH-06300 or attainment of level 4 score on the Work Keys math assessment test.

OPE 20100 Outdoor Power Engines Capstone (F,W,S) 3 (1-3)

This is a project based course that applies both the theory and practical hands-on content that was covered in the two previous courses (OPE Level 1 and Level 2). The students will apply those skills learned in the previous two classes, while they troubleshoot and service equipment. Students will repair a multitude of minor issues that could include mechanical, electrical, or fuel-related problems, either internal or exterior to the engine or equipment it is mounted to. Prerequisite: OPE-10001 and OPE-11032.

OPE 20310 Power Sports Equipment (F) 3 (4-0)

Students who take this course will diagnose and troubleshoot the complex systems that exist in motorcycles, all-terrain vehicles and/or snowmobiles. These systems include, but are not limited to, electronic ignition systems, power drive systems, fuel-injection systems, braking systems, emission control systems, cruise control systems, suspension systems, and conventional design features (frame structures). Prerequisites: OPE-10001 and OPE-11032.

OPE 20510 Watercraft I (W) 3 (2-2)

Students who take this course will learn to diagnose and troubleshoot the complex systems that exist in outboard engines. This class is designed to help the student maintain, repair and diagnose running problems with the outboard engine. Personal watercraft (jet skis, etc.) will also be discussed and covered to a certain degree, as equipment becomes available. Prerequisites: OPE-10001 and OPE-11302.

PHARMACY TECHNOLOGY (PHM)

PHM 10000 Intro to Pharmacy Technology (F) 6 (6-0)

This course is designed to teach the student the concepts necessary for a pharmacy technician in a hospital or retail setting, including dispensing and control of drugs, knowledge of the physiological effects of drugs, inventory control, insurance billing, pharmacy terminology and the evolution of pharmacy. Prerequisite: acceptance into the pharmacy technology program. Corequisites: BIO-10700 and PHM-10100.

PHM 10100 Pharmacology/Pharmacy Calculations (F) 3 (3-0)

This course focuses on the acquistion of knowledge related to the generic, trade name and function of drugs. Mathematical concepts such as fractions and decimals, as well as medication labels, calculations and measurement of medications are taught. The pharmacy technician will utilize these concepts in his or her job. Prerequisite: admission into the pharmacy technician program. Corequisites: BIO-10700 and PHM-10000.

PHM 10200 Issues in Pharmacy Technology (W) 3 (3-0)

This course is designed to educate the student regarding the responsibilities and concerns associated with the graduate Pharmacy Technician including medical law and ethics, current issues, and policy related to pharmacy and review for the certification exam. Prerequisites: BIO-10700, PHM-10000 and PHM-10100. Corerequisites: PHM-10300 and SPE-11400.

PHM 10300 Pharmacy Technology Clinical (W) 6 (0-18)

The student will apply the concepts and theory learned in the didactic courses to the clinical environment to include the retail pharmacy, hospital pharmacy and specialty pharmacy. Prerequistes: BIO-10700, PHM-10000, and PHM-10100. Corequisites: PHM-10200 and SPE-11400.

PHILOSOPHY (PHL)

PHL 20100 Intro to Philosophy (F) 3 (3-0)

An introduction to not only the study of philosophy, but also its active and systematic practice. While the course explores such topics as the origin and development of philosophy, the ideas of major philosophers, and significant philosophical issues and problems, students are encouraged, above all, to practice the methods of philosophy as a life skill. Prerequisite or corequisite: ENG-10303 or permission of instructor. (Humanities Credit)

PHL 21000 Introduction to Ethics (W) 3 (3-0)

An introduction to the study of moral philosophy. Through reading, writing, and discussion, students will explore moral values and the major ethical theories, practice effective moral reasoning, and apply ethical thinking to issues and problems in various fields and their own lives. Prerequisite or corequisite: ENG-10303 or permission of instructor. (Humanities Credit)

PHYSICS (PHY)

PHY 10501 Physical Science (W) 3 (3-0)

This is a lecture and virtual laboratory classroom course in physical science. The course investigates fundamental matter and energy concepts in the physical universe through the use of selected materials from the areas of astronomy, chemistry, and physics. Attention is given to the methods of scientific inquiry and applications in technology. This course may be elected to meet the science requirement by those not majoring in science. Corequisite: MTH-12000 and PHY-10502. (Science Credit)

PHY 10502 Physical Science Lab (W) 1 (0-2)

This is a laboratory course to accompany PHY-10501. Corequisite: PHY-10501. (Science Credit)

PHY 20101 Physics I with Trigonometry (W) 4 (4-0)

This is an algebra-trigonometry-based lecture course in introductory physics. Topics will include general properties of energy and matter with emphasis on mechanics, heat and thermodynamics, and sound. Prerequisite: MTH-12000 or permission of instructor. Corequisite: MTH-14000 and PHY-20102. (Science Credit)

PHY 20102 Physics I with Trigonometry Lab (W) 1 (0-3)

This is a laboratory course to accompany PHY-20101. Corequisite: PHY-20101.

PHY 20201 Physics II with Trigonometry (F) 4 (4-0)

This is a continuation of General Physics I. Topics will include principles of electricity and magnetism, optics, and concepts of modern physics such as relativity and nuclear physics. Prerequisite: PHY-20100 or permission of instructor. Corequisite: PHY-20202. (Science Credit)

PHY 20202 Physics II with Trigonometry Lab (F) 1 (0-3)

This is a laboratory course to accompany PHY-20201. Corequisite: PHY-20201. (Science Credit)

PHY 22101 Physics I with Calculus (W) 4 (4-0)

This is an introductory lecture course that will provide a calculus-based background of basic principles and theories with practical applications; topics will include general properties of matter with emphasis on mechanics and waves; heat and thermodynamics, and sound. Prerequisite: MTH-22002. Corequisite: MTH-22102 and PHY-22102. (Science Credit)

PHY 22102 Physics I with Calculus Lab (W) 1 (0-3)

This is a laboratory course to accompany PHY-22101. It will provide the student with a background of basic laboratory skills and experimental experience in approaching physical principles and theories with practical applications; topics will include electricity and magnetism, optics and light, modern physics, and nuclear physics. Emphasis will be placed on proper laboratory procedures and utilization of the Scientific Method. Corequisite: PHY-22101. (Science Credit)

PHY 22201 Physics II with Calculus (F) 4 (4-0)

This is a continuation of PHY-22101 that will provide a calculus-based background of basic principles and theories with practical applications; topics will include electricity and magnetism, optics and light, modern physics, and nuclear physics. Prerequisite: PHY-22101. Corequisite: PHY-22202. (Science Credit)

PHY 22202 Physics II with Calculus Lab (F) 1 (0-3)

This is an laboratory course that should be taken in tandem with the PHY-22201 physics lecture course. It will provide the student with a background of basic laboratory skills and experimental experience in approaching physical principles and theories with practical applications; topics will include electricity and magnetism, optics and light, modern physics, and nuclear physics. Emphasis will be placed on proper laboratory procedures and utilization of the Scientific Method. Prerequisite: PHY-22101 and PHY-22102. Corequisite: PHY-22201. (Science Credit)

PLUMBING (PLB)

PLB 10301 Intro to the Plumbing Profession (F,W,S) 0.2

Introduces trainees to the many career options available in today's plumbing profession. Provides a history of plumbing and also discusses the current technology, industries, and associations that make up the modern plumbing profession. Also reviews human relations and safety skills.

PLB 10302 Plumbing Safety (F,W,S) 0.8

Discusses the causes of accidents and their consequences and repercussions in terms of delays, increased expenses, injury, and loss of life. Reviews the types and proper use of personal protective equipment (PPE). Instructs trainees in the use of critical safety information conveyed in hazard communication (HazCom), safety signs, signals, lockout/tagout, and emergency response. Covers confined-space safety, and reviews safety issues related to hand and power tools.

PLB 10303 Plumbing Tools (F,W,S) 0.3

Instructs trainees in the care and use of the different types of hand and power tools they will use on the job. Gives trainees the information they need to select the appropriate tools for different tasks, and reviews tool maintenance and safety issues.

PLB 10304 Intro to Plumbing Math (F,W,S) 0.3

Reviews basic math concepts, such as whole numbers, fractions, decimals, and squares, and demonstrates how they apply to on-the-job situations. Teaches trainees how to measure pipe using fitting tables and framing squares and how to calculate 45-degree offsets.

PLB 10305 Intro to Plumbing Drawings (F,W,S) 0.5

Introduces trainees to the different types of plumbing drawings they will encounter on the job and discusses how to interpret and apply them when laying out and installing plumbing systems. Discusses the symbols used in plumbing and mechanical drawings and reviews isometric, oblique, orthographic, as well as schematic drawings. Requires trainees to render plumbing drawings and to recognize how code requirements apply to plumbing drawings.

PLB 10306 Plastic Pipe and Fittings (F,W,S) 0.4

Introduces trainees to the different types of plastic pipe and fittings used in plumbing applications, including ABS, PVC, CPVC, PE, PEX, and PB. Describes how to measure, cut, join, and support plastic pipe according to manufacturer's instructions and applicable codes. Also discusses pressure testing of plastic pipe once installed.

PLB 10307 Copper Pipe and Fittings (F,W,S) 0.4

Discusses sizing, labeling, and applications of copper pipe and fittings and reviews the types of valves that can be used on copper pipe systems. Explains proper methods for cutting, joining, and installing copper pipe. Also addresses insulation, pressure testing, seismic codes, and handling and storage requirements.

PLB 10308 Cast Iron Pipe and Fittings (F,W,S) 0.5

Introduces trainees to hub-and-spigot and no-hub cast iron pipe and fittings and their applications in DWV systems. Reviews material properties, storage and handling requirements, and fittings and valves. Covers joining methods, installation, and testing.

PLB 10309 Carbon Steel Pipe and Fittings (F,W,S) 0.4

Discusses threading, labeling, and sizing of carbon steel pipe and reviews the differences between domestic and imported pipe. Also covers the proper techniques for measuring, cutting, threading, joining, and hanging carbon steel pipe.

PLB 10310 Corrugated Stainless Steel Tubing (F,W,S) 0.1

Reviews flexible plastic-coated steel tubing. Discusses piping system components and the various connection and installation options. Also reviews applicable safety and code requirements.

PLB 10311 Fixtures and Faucets (F,W,S) 0.2

Discusses the proper applications of code-approved fixtures and faucets in plumbing installations. Reviews the different types of fixtures and faucets and the materials used in them. Also covers storage, handling, and code requirements.

PLB 10312 Intro to Drain/Waste/Vent (DWV) Sys (F,W,S) 0.4

Explains how DWV systems remove waste safely and effectively. Discusses how system components, such as pipe, drains, traps, and vents, work. Reviews drain and vent sizing, grade, and waste treatment. Also discusses how building sewers and sewer drains connect the DWV system to the public sewer system.

PLB 10313 Intro to Water Distribution Systems (F,W,S) 0.4

Identifies the major components of water distribution systems and describes their functions. Reviews water sources and treatment methods and covers supply and distribution for the different types of systems that trainees will install on the job.

PLB 10314 Plumbing Math Two (F,W,S) 0.6

Explains the Pythagorean theorem and reviews methods for finding angles. Discusses the techniques used to calculate simple and rolling offsets, as well as offsets on parallel runs of pipe.

PLB 10315 Reading Commercial Drawings (F,W,S) 0.8

Teaches trainees how to interpret and use civil, architectural, structural, mechanical, plumbing, and electrical drawings when installing plumbing systems. Covers how to create and use isometric drawings, material takeoffs, and approved submittal data.

PLB 10316 Hanger/Support/Struc Pen/Fire Stop (F,W,S) 0.4

Introduces trainees to methods for attaching and running DWV and water supply piping in relation to structural elements, including pipe hangers and supports, modifications to structural members, and fire stopping.

PLB 10317 Installing & Testing DWV Piping (F,W,S) 1

Explains how to locate, install, connect, and test a complete drain, waste, and vent (DWV) system.

PLB 10318 Installing Roof/Floor/Area Drains (F,W,S) 0.2

Covers the proper techniques for locating, installing, and connecting roof, floor, and area drains according to code. Also discusses waterproof membranes and flashing, drain components, and proper drain applications.

PLB 10319 Types of Valves (F,W,S) 0.2

Reviews the many types of valves, their components, and valve applications. Also covers valve repair and replacement.

PLB 10320 Install & Test Water Supply Piping (F,W,S) 0.8

Explores the proper techniques for locating, installing, and testing complete water supply systems, including piping, meters, water heaters, water softeners, and hose bibs. Reviews common code requirements for water supply systems.

PLB 10321 Installing Fixtures/Valves/Faucets (F,W,S) 0.8

Covers the installation of basic plumbing fixtures, including bathtubs, shower stalls, lavatories, sinks, water closets, and urinals. Also reviews the installation of associated valves, faucets, and components.

PLB 10322 Intro to Electricity (F,W,S) 0.6

Introduces trainees to the principles of electricity, including voltage, current, resistance, and power. Includes important electrical formulas, circuitry, and common plumbing-related electrical applications.

PLB 10323 Installing Water Heaters (F,W,S) 0.2

Discusses gas-fired, electric, solar, instantaneous, and indirect water heaters, components, and applications. Reviews proper installation and testing techniques and covers the latest federal guidelines that apply to water heaters.

PLB 10324 Fuel Gas Systems (F,W,S) 0.8

Introduces the techniques for safe handling of natural gas, liquefied petroleum gas, and fuel oil. Reviews fuel gas and fuel oil applications, systems installation, and testing.

PLB 10325 Servicing Fixtures/Valves/Faucets (F,W,S) 0.2

Covers the troubleshooting and repair of fixtures, valves, and faucets in accordance with code and safety guidelines.

POLITICAL SCIENCE (POL)

POL 10100 Intro to American Government (F,W,S) 3 (3-0)

A study of the processes and functions of national government, this course includes a study of federalism, political parties, constitutional principles, and the role of the citizen. Prerequisite or corequisite: ENG-10303.

POL 20000 International Relations (F) 3 (3-0)

This is a study of the nature of relations among nations with particular reference to the basic principles of international politics, including foreign policy, cooperation, conflict, and the role of international organizations. Special focus will be on global issues such as political and economic development, human rights, population growth, food and energy policies, and conservation. Prerequisite: POL-10100. (Social Science Credit)

POL 20100 Comparative Government (F) 3 (3-0)

This course surveys the government and political institutions in selected Western European democracies, communist systems, and third world countries, emphasizing political socialization, participation, political parties, interest groups, policy making, and governmental structures. The student will come to understand the differences between the American political system and other democratic and non-democratic systems. In addition, the course considers cultural, economic, and social differences. Prerequisite: POL-10100. (Social Science Credit)

PSYCHOLOGY (PSY)

PSY 10100 Intro to Psychology (F,W,S) 3 (3-0)

This course is a study of human and animal behavior with reference to perception, learning memory, thinking, emotions, intelligence, aptitude, and personality. The need for scientific investigation of behavior is stressed throughout the course. In addition, the behavioral neuroscience, psychodynamic, social/behavioral, cognitive, and humanistic viewpoints are considered for analysis of psychological phenomena. Prerequisite or corequisite: ENG-10303. (Social Science Credit)

PSY 20200 Abnormal Psychology (F,W,S) 3 (3-0)

Abnormal psychology provides examination of the main psychological disorders manifested by individuals across the life span. This includes a descriptive and theoretical survey of the major forms of psychopathology in children, adolescents, and adults, and will also explore current trends and research in the fields of mental health and psychopathology. The course will provide an historical overview of mental illness followed by exploration into the eating disorders, schizophrenia, mood disorders, suicide, anxiety disorders, dissociative disorders, sexual and gender identity disorders and the insanity defense. Prerequisite: PSY-10100. (Social Science Credit)

PSY 24000 Lifespan Developmental Psychology (W) 3 (3-0)

This is a course designed to introduce the basic principles of developmental psychology from conception to death (life-span). The course, while pursuing a chronological approach (life-stages) and examining basic developmental tasks appropriate to each stage, will explore the factors that influence growth and development. Prerequisite: PSY-10100 or permission of instructor. (Social Science Credit)

PSY 26001 Human Sexuality (F) 3 (3-0)

This course will examine the effect of human sexuality and sex roles upon human behavior. Additionally, findings in contemporary sexual research and therapy will be emphasized. Prerequisite: PSY-10100 or SOC-10100. (Social Science Credit)

SOCIOLOGY (SOC)

SOC 10100 Intro to Sociology (F,W,S) 3 (3-0)

This course is an introduction to the nature of society, culture, group relations, social processes, and institutions. Prerequisite or corequisite: ENG-10303. (Social Science Credit)

SOC 24000 Criminology (W,S) 3 (3-0)

This course provides an analysis of crime, criminal behavior, and punishment through a variety of historical and contemporary theoretical perspectives. Prerequisite or corequisite: ENG-10303 and PSY-10100 or SOC-10100 or permission of instructor. (Social Science Credit)

SOC 24500 Social Deviant Behavior (W) 3 (3-0)

This course provides a study of social deviant behavior, including social and ethnic bias, sociopath, cult behavior and ethical behaviors within the criminal justice process. Prerequisite: PSY-10100 or SOC-10100. (Social Science Credit)

SOC 26001 Human Sexuality (F) 3 (3-0)

This course will examine the effect of human sexuality and sex roles upon human behavior. Additionally, findings in contemporary sexual research and therapy will be emphasized. Prerequisite: PSY-10100 or SOC-10100. (Social Science Credit)

SONOGRAPHY (SON)

SON 10000 Intro to Sonography Patient Care (F,W,S) 2 (1-1)

This course consists of theory and guided learning lab practice. Focus is acquisition of basic skills and an understanding of cardiac medical terminology, pharmacology, and monitoring along with the basics of IV therapy, vital signs, patient transfer, O2 maintenance and medical ethics (including HIPPA).

SON 10500 Cardiac Anatomy & Physiology (F, W) 3 (3-0)

A complete study and explanation of the heart and its associated structures. This class is vital to an understanding of the anatomy and fuction of the heart, as well as the basic cardiac physiology as it relates to cardiac anatomy and function.

SON 11000 Ultrasound Physics (F,W) 3 (3-0)

This course is designed to teach the fundamentals of Ultrasound Physics and instrumentation. This includes review of different transducer models, the propagation of sound waves, and the Ultrasound's effect on the body.

SON 11600 Cardiac Principles I (F,W) 3 (3-0)

This course applies the knowledge of cardiovascular anatomy and physiology to the fundamentals of ultrasound imaging and the knowledge to obtain the standard basic views required for an echocardiographic examination. Prerequisite: program progression. Corequisite: SON-11700.

SON 11700 Cardiac Lab I (F,W) 4 (0-8)

This course is the application of theory to practice related to the fundamentals of ultrasound imaging and the standard basic views required for an echocardiographic eamination. Prerequisite: program progression. Corerequisite: SON-11600.

SON 12500 Echo I (W,S) 3 (3-0)

This course presents cardiovascular related conditions and diseases. Their etiology and symptoms are discussed and correlated to cardiovascular imaging and techniques required to assist the physician in diagnosis of these conditions. Prerequisite: program progression.

SON 13100 Cardiac Principles II (W,S) 3 (3-0)

This course provides further knowledge related to cardiac anatomy and physiology to the principles of cardiac imaging techniques and procedures. Prerequisite: program progression. Corerequisite: SON-13200.

SON 13200 Cardiac Lab II (W,S) 4 (0-8)

This course applies theory to practice of Cardiac Principles II and integrates the knowledge of anatomy, physiology and hemodynamics with clinical skills. Prerequisite: program progression. Corerequisite: SON-13100.

SON 13500 Clinical Practice I (W,S) 2 (0-6)

This course is an arranged off campus clinical experience at a variety of facilities. Prerequisite: program progression.

SON 15000 Echo II (F,S) 3 (3-0)

This course relates further knowledge of cardiac anatomy and physiology and cardiac pathology and abnormalities that may be encountered in a clinical setting.

SON 15500 Cardiac Principles and Lab III (F,W) 4 (1-6)

Ths course focuses on the skills necessary to perform complete cardiac exams and correlate cardiac disease processes and pathology that may be present in order to aid the physician in the appropriate disease diagnosis. Students increase in knowledge and skills as this course integrates advanced cardiovascular imaging techniques to investigate various cardiac disease states.

SON 15600 Cardiac Principles III (F,W) 3 (3-0)

This course focuses on correlating cardiac disease processes and pathophysiology to aid the physician in the appropriate disease diagnosis. The students increase in knowledge as this course integrates advanced cardiac imaging techniques to investigate various cardiac disease states. Prerequisite: program progression. Corequisite: SON-15700.

SON 15700 Cardiac Lab III (F,W) 4 (0-8)

This course applies theory to practice related to pathophysiology of cardiac disease, advanced cardiac imaging techniques and procedures with doppler flow and measurements of patients with advanced cardiac disease.

SON 16000 Clinical Practice II (F,W) 2 (0-6)

This course is an arranged off-campus clinical experience at a variety of facilities. Prerequisite: program progression.

SON 22000 Externship (W) 15.5 (0-15.5)

Students will be assigned to an off campus, remote site in order to complete 697.5 clock hours of practice with a preceptor. Prerequisite: program progression.

SPEECH (SPE)

SPE 10500 Fund of Speech (F,W) 3 (3-0)

Fundamentals of Speech addresses the basic principles of speech construction and delivery. During the course, the student will give various kinds of speeches, including impromptus and extemporaneous. (Communication)

SPE 11400 Intro to Interpersonal/Public Comm (F,W,S) 3 (3-0)

Introduction to Interpersonal and Public Communication is a course aimed at understanding and applying communication theory. Communication skills will be developed through small group activities, public speaking, and personal assessment assignments. (Communication)

SURGICAL TECHNOLOGY (SUR)

SUR 10000 Fundamentals of Surgical Technology (F) 3 (3-0)

This course introduces the role of the surgical technician as well as the procedures, skills, and protocol to work in the operating room environment. Prerequisite: acceptance into the surgical technology program. Corequisite: SUR-10100.

SUR 10100 Surgical Asepsis (F) 2 (2-0)

This course defines and describes pathogenic microorganism as well as hospital infections causes and prevention. The student will learn methods of contorlling these microorganisms through sterilization and disinfection. Corequisite: SUR-10000.

SUR 10200 The Surgical Patient (F) 2 (2-0)

This course provides knowledge related to care and safety of the surgical patient pre, post and during their surgical experience. The introduction of the technicians role and responsibilities related to legal and ethical dilemmas faced int he healthcare field are explored. Prerequisite: program progression.

SUR 10300 Surgical Pharmacology (F) 2 (2-0)

This course provides knowledge related to different types of anesthesia and their indications as well as their contraindications. The student will learn mathematical calculations as well as the commonly used medications for the surgical patient. Prerequisite: program progression.

SUR 10400 Basic Operative Procedures (F) 2 (2-0)

The student will learn the basic types of surgical procedures with an emphasis on maintaining sterile technique. With these procedures the anatomy, physiology and pathophysiology will be reviewed. Prerequisite: program progression. Corerequisite: SUR-10000, SUR-10500, and SUR-10600.

SUR 10500 Surgical Techniques I (F) 2 (0-4)

This course will apply theory to practice related to the use of procedures, protocols, and skilled learned in Fundamentals and the surgical procedures learned in Basic Operating Procedures. An emphasis is placed on maintaining surgical asepsis during these procedures as well as anticipatory guidance. Prerequisite: program progression. Corequisite: SUR-10000 and SUR-10400.

SUR 10600 Surgical Techniques II (F) 3 (0-6)

This course applies theory to practice with mock surgical procedures and simulation with principles, protocols and skills learned in Fundamentals of Surgical Technology and Basic Operative Procedures. Prerequisite: program progression, SUR-10500. Corerequisite: SUR-10000 and SUR-10400.

SUR 20000 Advanced Surgical Procedures (W) 3 (0-6)

This course advances the students knowledge and skills with more complex and advanced surgical procedures focusing on the sequencial aspect of the procedure with specialized instrumentation. Anatomy and physiology of these complex cases is reviewed as well as biomedical components in the surgical environment. Prerequisite: program progression. Corequisite: SUR-20100 and SUR-20200.

SUR 20100 Surgical Techniques III (W) 5 (0-15)

This course provides for application of theory in the clinical environment of a hospital with the application of skills in basic and advanced surgical procedures. Prerequisite: program progression. Corerequisite: SUR-20000.

SUR 20200 Surgical Techniques IV (W) 5 (0-15)

This course provides for application of theory in the clinical environment of a hospital with the application of skills in basic and advanced surgical procedures while incorporating the biomedical resources in surgical specialty areas. Prerequisite: program progression. Corequisite: SUR-20000.

SUR 20300 Surgical Professional Practice (W) 2 (2-0)

This course provides knowledge related to future advances in surgical technology in specialty surgeries and telesurgery. Preparation for the national certification exam is provided and an emphasis on professional practice responsibilities is reviewed. Prerequisite: program progression.

THEATRE (THE)

THE 12000 Intro to Theatre (F) 3 (3-0)

This course is a survey of the evolution of world theatre forms, from the cave drawings of prehistoric man to the most recent shows on the Broadway stage. Classroom discussions will cover the major producers, playwrights, performers, directors, and designers of each era covered, as well as the body of literature that has come to represent that era. Classroom sessions will be augmented by readings from these periods. (Humanities Credit)

THE 121-- Theatre Workshop I (F,W) 1-3

The workshop provides practical experience in mounting a theatrical production. The student will gain familiarity with one or more of the following areas: acting, directing, costuming, scenery construction, properties, lighting and sound, and stage management. A weekly time commitment will be a requirement during the semester. The student will be required to work 30 hours or more for one credit hour, 60 hours or more for two credit hours, and 90 hours or more for three credit hours. (Humanities Credit)

THE 12200 Stagecraft I (W) 3 (3-0)

This course studies and applies the basic techniques of set construction, theatrical lighting, sound technology, stage rigging, and backstage organization. This "basics" course will introduce the student to the various technical elements that make a theatre run. The class will cover various theatre disciplines outlined above and provide actual hands-on experience with theatre lighting and sound equipment, maneuvering theatre catwalks, and building basic theatrical scenery. This course is required for admission to upper-level design and technology courses. (Humanities Credit)

THE 12300 Acting I (F) 3 (3-0)

This class is an introduction to the art of acting. The student walks the path of the actor from developing an acting technique to the performance of short scenes. The actor learns to get beyond the limits of self and explore the freedom of creating a character. Along the way, time will be spent exploring the creative process and developing an ensemble approach to acting. Acting I can work in conjunction with the semester’s theatrical production. (Humanities Credit)

THE 21000 Theatre Makeup (W) 3 (3-0)

The student will become familiar with the art and profession of stage makeup. This course will involve hands-on experience in the principles of the art and technique of designing and applying theatrical makeup. Makeup textbooks will be provided as reference material. The course will cover character analysis, facial anatomy, makeup supplies, and professional makeup application. (Humanities Credit)

THE 221-- Theatre Workshop II (F,W) 1-3

This course is a continuation of Theatre Workshop I. Students concentrate their efforts in different areas than they did in Workshop I. A weekly time commitment will be a requirement during the semester. The student will be required to work 45 hours or more for one credit hour, 90 hours or more for two credit hours, and 135 hours or more for three credit hours. Prerequisite: THE-12100 or permission of instructor. (Humanities Credit)

THE 27000 Audition/Resume Workshop (W) 3 (3-0)

This course prepares the student to audition and/or interview for professional employment in theatre or for admission into a B.F.A. training program. Students will develop theatrical résumés, portfolios, and/or audition books specific to the field they wish to pursue. Students will also learn how to modify and update their audition/interview materials as changes in their circumstances dictate. Prerequisites: THE-12300 or permission of instructor. (Humanities Credit)

WELDING (WLD)

WLD 10120 Welding Safety (F,W,S) 0.13 (0-3)

Safe working conditions and job performances happen as a result of knowledgeable workers with positive attitudes. A safe worker knows the safety regulations are important to his or her employment. He/she uses the safeguards, personal protection devices, and other equipment required for safe working conditions for all employees. Students will demonstrate and practice the safety guidelines of the welding lab.

WLD 10121 AWS Joints/Positions/Welds/Symbols (F,W,S) 0.13 (0-3)

In all welding processes there are several types of joints, welds and positions. Metal preparation varies as well as the technique of making a weld. The welder should know the differences and be able to identify these variables by using the American Welding Society numbering system. Given the necessary materials and equipment the student will demonstrate the ability to read and measure with basic types of rules.

WLD 10122 OAW Terms & Equipment Setup (F,W,S) 0.17 (0-4)

In this module the student will learn oxyacetylene welding, safety terms and definitions acceptable to American Welding Society standards and how to effectively set-up and shut-down an oxyacetylene welding station properly. In order to safely begin oxyacetylene welding, it is first necessary to know how to set the equipment up in a safe and proper manner. Setting up and shutting down of an oxyacetylene welding station improperly could cause serious damage or injury to yourself, the people working near you, and the equipment.

WLD 10123 OAW Stringer Beads & Joints 1G-1F (F,W,S) 0.36 (0-9)

The welder does more work in the flat position than in any other position. Welding the various joints in the flat position is the basis for all other welding procedures. In this module, the student will demonstrate how to run stringer beads with and without a filler rod, in the flat position.

WLD 10124 BW Stringer Beads & Joints (F,W,S) 0.29 (0-7)

Brazing and braze welding are two non-fusion metal joining processes that require much less heat than any of the fusion welding processes. In brazing, you coat the surface of the base metal with a brazing alloy. This process is called adhesion. In this module, the student will demonstrate how to braze the basic joints in the flat position.

WLD 10125 Cutting OA/Plasma Cutting/Carbn Arc (F,W,S) 0.45 (0-11)

Cutting metal is a very common occurrence among welders. There are many ways to accomplish this. The oxyacetylene torch and plasma are two ways to do this. Plasma arc cutting can cut different metals, such as stainless, aluminum, and other hard to cut alloy steels. In this module, the student will demonstrate how to cut both ferrous and non-ferrous metals by manual and automatic means by using Plasma and Oxyacetylene. Air carbon arc cutting is a method of removing unsatisfactory welds in a short period of time. In this module the student will identify terms and definitions of the process, as well as utilize the process to remove an unacceptable weld from metal.

WLD 10126 Identifying Good Welds per AWS (F,W,S) 0.13 (0-3)

To produce good welds you must not only know how to manipulate the electrode, but you must know certain weld characteristics, types of electrode characteristics, and types of machines and their settings. Knowledge of what constitutes an acceptable weld and what constitutes an unacceptable weld is also important. In this module the student will explain the difference between good weld characteristics and bad.

WLD 10127 SMAW Terms/Identify Electrodes (F,W,S) 0.17 (0-4)

With any trade, there is a language which relates only to that trade and has special meaning for persons involved with that occupation. This module contains the most common terms important to arc welding. Also S.M.A.W. electrodes have a core of metal to supply filler metal to the weld. They also have a covering of flux that is burned to supply a gas shield around the arc and slag over the molten puddle. In this module the student will explain some of the American Welding Society (A.W.S.) terms and what the electrode numbering system means for identifying the different covered electrodes.

WLD 10128 SMAW Set-up & Weld Stringer Beads (F,W,S) 0.42 (0-10)

Learning to stick weld involves mastery of a specific series of operations. Skill in performing these operations requires a lot of practice. Once this skill has been acquired, the operations can be applied on any welding job. In this module, the student will demonstrate how to strike and maintain an arc to run stringer beads on a plate of metal.

WLD 10129 SMAW Welding Joints/Flat Pos/1G-1F (F,W,S) 0.33 (0-8)

In this module the student will demonstrate how to effectively weld joints in the flat position (1G & 1F) using the S.M.A.W. process on a base metal, according to American Welding Society Standards.

WLD 10130 GMAW Set-up & Weld Stringer Beads (F,W,S) 0.42 (0-10)

The gas metal arc welding process (abbreviated G.M.A.W.) uses a continuously fed wire for the electrode and filler metal. G.M.A.W. is a semiautomatic welding operation that is especially useful where making long, continuous welds and fast welding speeds are required. In this module the student will explain the general principles of G.M.A.W., some of the advantages and disadvantages of G.M.A.W., and how the wire electrode is applied or transferred to the parent metal being welded. Also in this module the student will demonstrate how to actually establish the arc and make weld beads using the G.M.A.W. equipment correctly.

WLD 10131 GMAW Welding Joints/Flat Pos/1G-1F (F,W,S) 0.29 (0-7)

In this module the student will demonstrate how to effectively weld joints in the flat position (1G & 1F) using the G.M.A.W. process on a base metal, according to American Welding Society Standards.

WLD 10132 FCAW Set-up & Weld Stringer Beads (F,W,S) 0.42 (0-10)

The flux cored arc welding process (abbreviated F.C.A.W.) uses a continuously fed wire for the electrode that has a flux coating and filler metal. F.C.A.W. is a semiautomatic welding operation that is especially useful where making long, continuous welds and fast welding speeds are required and where more weld strength and/or penetration is required. In this module the student will explain the general principles of F.C.A.W., some of the advantages and disadvantages of F.C.A.W., and how the wire electrode is applied or transferred to the parent metal being welded. Also in this module the student will demonstrate how to actually establish the arc and make weld beads using the F.C.A.W. equipment correctly.

WLD 10133 FCAW Welding Joints/Flat Pos/1G-1F (F,W,S) 0.29 (0-7)

In this module the student will demonstrate how to effectively weld joints in the flat position (1G & 1F) using the F.C.A.W. process on a base metal, according to American Welding Society Standards.

WLD 10240 GMAW Welding Joints/Hor Pos/2G-2F (F,W,S) 0.17 (0-4)

In this module the student will demonstrate how to effectively weld joints in the horizontal position (2G & 2F) using the G.M.A.W. process on a base metal, according to American Welding Society Standards.

WLD 10241 FCAW Welding Joints/Hor Pos/2G-2F (F,W,S) 0.17 (0-4)

In this module the student will demonstrate how to effectively weld joints in the horizontal position (2G & 2F) using the F.C.A.W. process on a base metal, according to American Welding Society Standards.

WLD 10242 GMAW Welding Joints/Ver Pos/3G-3F (F,W,S) 0.17 (0-4)

In this module the student will demonstrate how to effectively weld joints in the vertical position (3G & 3F) using the G.M.A.W. process on a base metal, according to American Welding Society Standards.

WLD 10243 FCAW Welding Joints/Ver Pos/3G-3F (F,W,S) 0.17 (0-4)

In this module the student will demonstrate how to effectively weld joints in the vertical position (3G & 3F) using the F.C.A.W. process on a base metal, according to American Welding Society Standards.

WLD 10244 GMAW Welding Joints/Ovhd Pos/4G-4F (F,W,S) 0.21 (0-5)

In this module the student will demonstrate how to effectively weld joints in the overhead position (4G & 4F) using the G.M.A.W. process on a base metal, according to American Welding Society Standards.

WLD 10245 FCAW Welding Joints/Ovhd Pos/4G-4F (F,W,S) 0.21 (0-5)

In this module the student will demonstrate how to effectively weld joints in the overhead position (4G & 4F) using the F.C.A.W. process on a base metal, according to American Welding Society Standards.

WLD 10246 GMAW Pulse Arc/Flat Pos/1G-1F (F,W,S) 0.17 (0-4)

In this module the student will demonstrate how to effectively weld joints in the flat position (1G & 1F) using the G.M.A.W. Pulse Arc process on a base metal, according to American Welding Society Standards.

WLD 10247 GMAW Metal Core Arc Wld/Flat/1G-1F (F,W,S) 0.17 (0-4)

In this module the student will demonstrate how to effectively weld joints in the flat position (1G & 1F) using the G.M.A.W. Pulse Arc process on a base metal, according to American Welding Society Standards.

WLD 10248 GMAW Welding Joints Aluminum/All Ps (F,W,S) 0.33 (0-8)

In this module the student will demonstrate how to effectively weld joints in all positions (flat, horizontal, vertical & overhead) using the G.M.A.W. process with a Aluminum wire, on a base metal, according to American Welding Society Standards.

WLD 10249 Welding Blueprint Reading (F,W,S) 0.17 (0-4)

Practically all welding blueprints are incorporated with weld symbols and notations to give the welder needed information to complete a job. A welder must know how to use these symbols and notations to assure that welded assemblies meet design requirements. In this module the student will be able to identify different American Welding Society welding symbols.

WLD 10250 Fab. Project Using GMAW or FCAW (F,W,S) 0.5 (0-12)

In this module the student will fabricate a project using the G.M.A.W. or F.C.A.W. process, from a set of prints provided from the instructor. The prints will include a cut list, dimensions, and the appropriate American Welding Society welding symbols needed to complete the project. The instructor must approve all projects before they are started.

WLD 10251 SMAW Multi-Pass Stringer/Flat/1F (F,W,S) 0.42 (0-10)

In this module the student will demonstrate how to effectively run stringer beads in the flat position (1G & 1F) using the S.M.A.W. process on a base metal, according to American Welding Society Standards.

WLD 10252 SMAW Multi-Pass Weave/Flat/1F (F,W,S) 0.42 (0-10)

In this module the student will demonstrate how to effectively run stringer beads in the flat position (1G & 1F) using the S.M.A.W. process and weave technique, on a base metal, according to American Welding Society Standards.

WLD 10253 SMAW Welding Joints/Hor Pos/2G-2F (F,W,S) 0.36 (0-9)

In this module the student will demonstrate how to effectively run stringer beads in the horizontal position (2G & 2F) using the S.M.A.W. process on a base metal, according to American Welding Society Standards.

WLD 10254 SMAW Welding Joints/Ver Pos/3G-3F (F,W,S) 0.36 (0-9)

In this module the student will demonstrate how to effectively run stringer beads in the vertical position (3G & 3F) using the S.M.A.W. process on a base metal, according to American Welding Society Standards.

WLD 10351 Braze Welding V-Groove Butt Joint (F,W,S) 0.21

This course will teach the learner the proper way to braze a V-groove butt joint using oxyacetylene.

WLD 10370 SMAW Welding Joints/Ovhd Pos/4G-4F (F,W,S) 0.5 (0-12)

In this module the student will demonstrate how to effectively run stringer beads in the overhead position (4G & 4F) using the S.M.A.W. process on a base metal, according to American Welding Society Standards.

WLD 10371 Fabricate Project Using SMAW (F,W,S) 0.5 (0-12)

In this module the student will fabricate a project using the S.M.A.W. process, from a set of prints provided from the instructor. The prints will include a cut list, dimensions, and the appropriate American Welding Society welding symbols needed to complete the project. The instructor must approve all projects before they are started.

WLD 10372 Welding Metallurgy (F,W,S) 0.9 (0-22)

In this module the student will be able to explain the effects welding has on different metals and what takes place on a molecular level to the different metals when welding is performed on these metals. The student will perform micro-etch inspections to weld joints to identify and measure, penetration, weld size and the heat affected zone, on a variety of different welds performed in several different welding positions and processes.

WLD 10373 GTAW Setup & Weld Stringer Beads (F,W,S) 0.42 (0-10)

The gas tungsten arc welding process (abbreviated G.T.A.W.) uses a tungsten electrode and shielding gas for welding metal. In the G.T.A.W. process the weld is produced by the arc maintained between the end of a metal (tungsten) electrode and the part to be welded. In this module the student will demonstrate how to actually establish the arc and make weld beads using the G.T.A.W. equipment correctly.

WLD 10374 GTAW Weld Joints/Steel/Flat/1G-1F (F,W,S) 0.42 (0-10)

In this module the student will demonstrate how to effectively weld joints in the flat position (1G & 1F) using the G.T.A.W. process on steel, according to American Welding Society Standards.

WLD 10375 GTAW Weld Jts/StainSteel/Flat/1G-1F (F,W,S) 0.42 (0-10)

In this module the student will demonstrate how to effectively weld joints in the flat position (1G & 1F) using the G.T.A.W. process on stainless steel, according to American Welding Society Standards.

WLD 10376 GTAW Weld Joints/Alum/Flat/1G-1F (F,W,S) 0.42 (0-10)

In this module the student will demonstrate how to effectively weld joints in the flat position (1G & 1F) using the G.T.A.W. process on aluminum, according to American Welding Society Standards.

WLD 10377 GTAW Weld Joints/Steel/Hor/2G-2F (F,W,S) 0.42 (0-10)

In this module the student will demonstrate how to effectively weld joints in the horizontal position (2G & 2F) using the G.T.A.W. process on steel, according to American Welding Society Standards.

WLD 20450 GTAW Weld Jts/Stain Steel/Hor/2G-2F (F,W,S) 0.5 (0-12)

In this module the student will demonstrate how to effectively weld joints in the horizontal position (2G & 2F) using the G.T.A.W. process on stainless steel, according to American Welding Society Standards.

WLD 20451 GTAW Weld Joints/Alum/Hor/2G-2F (F,W,S) 0.5 (0-12)

In this module the student will demonstrate how to effectively weld joints in the horizontal position (2G & 2F) using the G.T.A.W. process on aluminum, according to American Welding Society Standards.

WLD 20452 GTAW Weld Joints/Steel/Ver/3G-3F (F,W,S) 0.5 (0-12)

In this module the student will demonstrate how to effectively weld joints in the vertical position (3G & 3F) using the G.T.A.W. process on steel, according to American Welding Society Standards.

WLD 20453 GTAW Weld Jts/Stain Steel/Ver/3G-3F (F,W,S) 0.5 (0-12)

In this module the student will demonstrate how to effectively weld joints in the vertical position (3G & 3F) using the G.T.A.W. process on stainless steel, according to American Welding Society Standards.

WLD 20454 GTAW Weld Joints/Alum/Ver/3G-3F (F,W,S) 0.5 (0-12)

In this module the student will demonstrate how to effectively weld joints in the vertical position (3G & 3F) using the G.T.A.W. process on aluminum, according to American Welding Society Standards.

WLD 20455 GTAW Weld Joints/Steel/Ovhd/4G-4F (F,W,S) 0.5 (0-12)

In this module the student will demonstrate how to effectively weld joints in the overhead position (4G & 4F) using the G.T.A.W. process on steel, according to American Welding Society Standards.

WLD 20456 GTAW Weld Jts/StainSteel/Ovhd/4G-4F (F,W,S) 0.5 (0-12)

In this module the student will demonstrate how to effectively weld joints in the overhead position (4G & 4F) using the G.T.A.W. process on stainless steel, according to American Welding Society Standards.

WLD 20457 GTAW Weld Joints/Alum/Ovhd/4G-4F (F,W,S) 0.5 (0-12)

In this module the student will demonstrate how to effectively weld joints in the overhead position (4G & 4F) using the G.M.A.W. process on aluminum, according to American Welding Society Standards.

WLD 20510 Introduction to Pipe Welding (F,W,S) 0.21 (0-5)

Pipe welding has much in common with welding plate, sheet metal, or castings. They are made from the same metals, and the metals have the same welding characteristics and welding processes. In this module the student will describe some of the codes governing pipe welding, and the tests you must take to qualify those welds. The student will also explain pipe joint design criteria, edge preparation, welding methods, and accessories needed for pipe welding.

WLD 20511 Pipe Welding 2G Fixed Position (F,W,S) 0.67 (0-16)

In this module the student will demonstrate how to effectively weld joints in the 2G Fixed position using multiple processes, on different pipe metals, according to American Welding Society Standards.

WLD 20512 Pipe Welding 5G Fixed Pos/Vert Up (F,W,S) 1.04 (0-25)

In this module the student will demonstrate how to effectively weld joints in the 5G Fixed position, vertical up, using multiple processes, on different pipe metals, according to American Welding Society Standards.

WLD 20513 Pipe Welding 5G Fixed Pos/Vert Down (F,W,S) 1.04 (0-25)

In this module the student will demonstrate how to effectively weld joints in the 5G Fixed position, vertical down, using multiple processes, on different pipe metals, according to American Welding Society Standards.

WLD 20514 Pipe Welding 6G Fixed Position (F,W,S) 1.04 (0-25)

In this module the student will demonstrate how to effectively weld joints in the 6G Fixed position, using multiple processes, on different pipe metals, according to American Welding Society Standards.

WLD 20606 6 Welder Qualifications & Projects (F,W,S) 4 (0-96)

In this module the student will demonstrate the ability to pass up to 6 welding qualifications according to the American Welding Society Standards, including all necessary documentation such as WPS, PQR & WPQR's and complete designated projects with the Instructor's approval.

WLD 207-- Directed Study-Welding Techniques (V) 1-4

This course is designed to meet special occupational needs for the individual student. Prerequisite: recommendation of an advisor. All proposals designed for purposes of
directed study must be approved by the Welding instructor prior to starting.

WORLD LANGUAGES (LAN)

FRE 11000 French I (F,W) 4 (4-0)

This course concentrates on functional communication. Communication is a primary goal with grammar to support this goal. This course will also introduce the student to the cultures associated with the language. (Humanities Credit)

FRE 12000 French II (W) 4 (4-0)

A continuation of Language I with further development of oral and written skills. The goal is to increase confidence and comfort with the cultures and language. Prerequisite: FRE-11000 or permission of instructor. NOTE: Students who have taken French in high school are encouraged to contact the instructor for permission to take this level II course. (Humanities Credit)

SGN 10200 Fingerspelling (W) 2

Students will learn the use of hand shapes to represent letters of the alphabet used in American Sign Language. The course will focus on reading "words" and not letters. (Humanities Credit)

SGN 11000 American Sign Language I (F) 4

This course covers the beginning level of the native language of the deaf. Students will develop receptive and expressive skills in fingerspelling, vocabulary, and short sentences. Objectives are met through use of drills, videos, and occasional guests who are deaf. NOTE: There is no prerequisite, but prior knowledge of ASL is helpful. (Humanities Credit)

SGN 12000 American Sign Language II (W) 4

This course is a continuation of American Sign Language I. Prerequisite: SGN-11000 or permission of instructor. (Humanities Credit)

SGN 13000 American Sign Language III (V) 4

This course is a continuation of American Sign Language II. Prerequisite: SGN-12000. (Humanities Credit)

SPN 11000 Spanish I (F) 4 (4-0)

This course concentrates on functional communication. Communication is a primary goal with grammar to support this goal. This course will also introduce the student to the cultures associated with the language. (Humanities Credit)

SPN 12000 Spanish II (W) 4 (4-0)

A continuation of Language I with further development of oral and written skills. The goal is to increase confidence and comfort with the cultures and language. Prerequisite: SPN-11000 or permission of instructor. NOTE: Students who have taken panish in high school are encouraged to contact the instructor for permission to take this level II course. (Humanities Credit)

PERSONNEL

KIRTLAND COMMUNITY COLLEGE ADMINISTRATION

Thomas Quinn, President
- B.A. University of Minnesota
- M.A. University of Northern Iowa
- Ed.S Winona State University
- Ph.D. University of South Dakota

Jerry Boerema, Associate Dean of Instruction
- A.A.S. West Shore Community College
- B.A. Central Michigan University
- M.S.A. Central Michigan University

JoAnn Comerford, Director of Facilities
- A.A.S. Kirtland Community College
- B.B.A. Northwood University

Mary Ann Frick, Associate Dean for Health Sciences
- B.S.N. Niagara University
- M.S.N. Michigan State University

Tim Hagen-Foley, Foundation Director
- B.A. Queen's University

Kathy Marsh, Dean of Instruction
- B.S. Lake Superior State College
- M.S. George Washington University

Timothy Scherer, Director of Institutional Services
- A.A.S. Community College of the Air Force
- B.S. Park College

Dale Shantz, Director of Human Resources
- B.A. University of Michigan
- M.A. Michigan State University

FULL-TIME FACULTY AND COUNSELORS

James Backlund, Instructor: Psychology/Sociology
- B.S. Northern Michigan University
- M.A. Western Michigan University

Lisa Balbach, Instructor: Computer Information Systems/Faculty Chair
- B.S. University of Minnesota
- M.A. University of Minnesota

Kevin Baughn, Instructor: Mathematics
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- B.S. Wright State University
- M.A. Wright State University

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- A.A.S. Kirtland Community College
- B.A. Spring Arbor University

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- M.A. Michigan State University

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- B.S. Eastern Michigan University
- M.S. University of Michigan

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- M.F.A. Michigan State University

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- M.S. State University College at Oneonta

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- A.A.S Lake Superior State University
- B.S. Lake Superior State University

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- M.S. Wayne State University
- Ph.D. Michigan State University

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- M.A. Iowa State University

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- B.A. Temple University
- M.S. National University
- M.S. University of Southern California

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- M.S.E. State Univ. of NY College at Cortland

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- M.A. Spring Arbor University

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- M.S.N. Michigan State University

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- M.S.N. Grand Valley State University

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- Ph.D. Central Michigan University

Sinan Toprak, Instructor: Political Science
- B.A. University of Bursa
- M.A. Western Michigan University

Shannon Weaver, Instructor: Cosmetology
- A.A.S. Kirtland Community College

Sandra Wilson, Instructor: Sonography

FULL-TIME CLASSIFIED STAFF

Mark Allen, Director: Auxiliary Services/Purchasing
A.A.S. Northwood University
B.S. Northwood University

Susanne Allen, Health Sciences Office Support Specialist
A.A. Kirtland Community College
B.S. Spring Arbor University

Nick Baker, Director: Institutional Research
B.S. Lake Superior State University

Kathleen Barber, Assistant Director of Human Resources

Kristin Barnhart, Bookkeeper, Payroll
B.B.A. Western Michigan University

Matthew Biermann, WAN Administrator

Victoria Borchers, Bookstore Assistant

Mark Burger, Director: eServices
A.A.S. Ferris State University
B.B.A. Wichita State University

Tonya Clayton, Admissions Specialist
A.A.S. Kirtland Community College

Joan Cyman, M-TEC Operations Coordinator
B.A. Hope College

Rick Daugherty, Technology Support Technician

Angie DeVries, Receptionist/Mail Processor

Brian Downing, Printing Technician

James Enger, Director of Marketing

Marjorie Esch, Webmaster
B.A. Goshen College

Anne Essmaker, Coordinator: Health Careers
A.A.S. Macomb Community College
B.A. Spring Arbor College

Terry Fasbender, Director: Printshop
A.A.S. Ferris State University

Ken Forst, Public Safety Officer
A.A.S. Kirtland Community College
A.A.S. Macomb Community College
B.S. Ferris State University

Jo Ann Gave, Student Services Assistant

Thomas Grace, Coordinator: Criminal Justice Training
A.A.S. Kirtland Community College

Kathy Graham, Registration Support Specialist
C.C. Kirtland Community College

Kerry Hannah, Coordinator: eLearning
A.A.S. Kirtland Community College

Gordon Hesse, Custodian

Jeffrey Hinkle, Maintenance

Christin Horndt, Director: Financial Aid
A.A.S. Kirtland Community College
B.B.A. Baker College
M.A. Central Michigan University

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Kathryn Koch, Administrative Assistant to the President
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A.B.A. Kirtland Community College
B.B.A. Northwood University

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B.B.A. Baker College

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C.C. Kirtland Community College

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B.S. Lake Superior State University

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B.S.W. Ferris State University
M.A. Spring Arbor University
M.A. Spring Arbor University

Tony Madaj, LAN Administrator
A.A.S. Kirtland Community College

Dennis Mansfield, Director: Public Relations
B.A. Michigan State University

Mark McCully, Executive Director: M-TEC
A.A.S. Kirtland Community College
B.S. Ferris State University
M.A. Spring Arbor University

Gary McPhilimy, Head Custodian

Cathy Meadows, Food Service Assistant
C.C. Kirtland Community College

Joseph Meadows, Maintenance II

Fred Miracle, Maintenance

Jeri Miracle, Custodian

Larry Miracle, Utility Worker

Kyle Morrison, eServices Media Specialist
A.A.S. Kirtland Community College

Mark Nagel, Groundskeeper

Dennis Noel, Custodian

Shawn Ott, Coordinator: Careers in Emergency Services
A.A.S. Kirtland Community College
B.S. Saginaw Valley State University

Beth Petrik, Kirtland Center for the Performing Arts Event Coordinator

Dawn Reynolds, Coordinator: Instructional Services

Kimberly Ruddy, Bookkeeper, Accounts Receivable
A.A.S. Kirtland Community College

Evelyn Schenk, Facilities Assistant
A.A.S. Kirtland Community College
B.S. Ferris State University
M.S. Ferris State University

Ilene Scherer, Director: Accounting

Mark Schroeder, Groundskeeper

Karen Sessions, Faculty Support Specialist
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B.S. Spring Arbor University

Ron Sharpe, Maintenance II

Winifred Sharpe, Coordinator: eTechnology

Daron Shimel, Coordinator: Skilled Trades Lab, M-TEC
C.C. Kirtland Community College
A.A.S. Kirtland Community College

Debra Shumaker, Director of Library
B.S. Central Michigan University
M.S. Drexel University

Rodger Steinbrink, Custodian

Mitcha Stevens, Custodian

Donald Wray, Director: Kirtland Center for the Performing Arts
B.A. Western Michigan University

Kathleen Wray, Assistant Registrar
B.S Harding University

Helen Yopp, eLearning Specialist
A.A.S. Kirtland Community College

KIRTLAND COMMUNITY COLLEGE FOUNDATION

The Kirtland Community College Foundation was established in 1972 for the purposes of soliciting funds to augment and extend the financial base of the college. The Foundation is a tax-exempt nonprofit corporation. Funds are used for capital construction, scholarships, library acquisitions, fellowships, faculty improvement grants, and the equipping and staffing of existing programs with modern tools of technology.

The Foundation officers and members work closely with the college board of trustees and the administration. A member of the college board of trustees serves as a member of the Foundation and the President of the college serves as secretary of the Foundation.

Members as of March 2010

William Curnalia, President Tom Richardson, Vice President Ruggero Dozzi, Treasurer Thomas Quinn, Secretary

Pauline Cournyer
Ruth Ferguson
Bill Gannon
Loretta Hassan
Teresa Money
Patrick Ryan
Sandy Woods

Foundation Director: Tim Hagen-Foley

KIRTLAND COMMUNITY COLLEGE ADVISORY COMMITTEES

Advisory committees for individual occupational programs at Kirtland provide information concerning competencies needed by employees, physical facilities and types of equipment used in the business or industry, technical curriculum content, and recruitment opportunities. Members also assist with promotion of the programs, evaluation of programs, job placement, and work experience. At times advisory members are instrumental in acquiring donations of equipment and supplies for occupational programs.

Automotive

Jeremy Akin	Matt Jernigan	Derek Pastell
Rodney Adams	Chris Kalthoff	Frank Schultz
Jerry Boerema	Ed Krause	Ron Sheffield
Smoke Bonk	Bernie Milnes	James Witt
Wayne Johns	Gene Moore	
Chuck Huber	Bob Oakes	

Construction Technology (M-TEC)

Mitch Borowiak	Mark McCully	Steve Pyke
Alan Mabarak	Eric Moore	Kevin Wescott

Corrections

Doug Atkinson	Brenda Ford	Andrea Martin
Jerry Boerema	William Gutzwiller	Jerome Newton
Douglas Bean	Randy Hazel	Mark Sabin
Michael Boyd	Arlin Herford	Lee Teschendorf
David Deeter	Charles Hinman	Greg Wood
Justin Eastman	Robert Lancaster	
Scott Feldhauser	Barney Ledford	

Cosmetology

Daniel Beltz	Teresa Henry	Mary-Jo Rondo
Jerry Boerema	Carmen Miller	Wendy Sheldon
Ann Colcanclasure	Tim O'Karski	Shannon Weaver
Billie Grezeszak	Beth Petrik	Robin Winton

Law Enforcement

Bradley Bannon	Thomas Grace	Dwayne Miedzianowski
Jerry Boerema	Howie Hanft	Robert Wagner
Kevin Grace		

Industrial Technologies (M-TEC)

John Brunk	Mark McCully	Dan Schirle
Kerry Harwood	Ray Ranstadler	Duane Wong

Marketing/Business

Connie Allen	Judy Fuller	Bob McGrail
Nick Baker	Judith Grenkowicz	Miriam Stoloque-Handrich
Lisa Balbach	Kerry Hannah	
Vickie Barnes	Mary Kehoe	Denis Weiss
Carl Bourdelais	Jane Lange	
Lois Byrd	Steve Leonard	

Nursing

Susie Allen	Rose Goick	Tina Page
Marcy Anderson	Emily Gray	Nancy Pavelek
Sheila Atwood	Patty Greenen	Ruth Pilon Connie
Hayley Baker	David Haines	Qualls
Judy Baker	Maureen Hayes	Helen Roach
Ann Balfour	Krista Hella	Karen Schaffer
Vicki Barnes	Hal Hewitt	Patricia Shantz
Robin Begick	Wendy Hillman	Gay Showalter
Debbie Bills	Barb Hoakstra	Linda Skrocki
Karen Bloom	Rhonda Howard	Charlotte Smith
Lori Boucard	Beth Hubbard	Coleen Smith
Lynn Boyce	Amanda Janisse	Jackie Smith
Nancy Burke	Rebecca Kalbfleisch	Karen Soltis
Linda Coffell	Laura Kaufman	Mary Steel
Beverly Cook	Kathy Kent	Paula Stopjik
Noreen Connelly	Cynde Kochensparger	Pam Swantek
Melody Culey	Jane Korthase	Cindy Tallent
Sheryl Dana	Della Lambert	Sara Vanderveer
Kathy Dankert	Diane Larson	Pat Visscher
Gleniss Daversa	Jeri Liphard	Toni Walker
Brigid Deleo	Sue Luckstead	Jane Williamson
Anne Essmaker	Julie McClure	Patty Wiltse
Mark Eubank	Beth Mogle	Ranelle Wiltse
Karen Farley	Jill Moore	Patricia Wren
Diane Fisher	Jody Moran	Claudia Yoder
Jim Fisher	Sharon Noffsinger	Kathy Zelinsky
Dana Garafalo	Nancy Nowaczyk	
Leda Gerber	Sue Owens	

Office Information Systems

Donna Blankenship	Nancy Kussrow	Christine Sneden
Nicole Butcher	Lisa Lashley	Leah Sutherby
Tonya Clayton	Verna Lee	Kathy Taylor
Starr Fritz	Jeannie McCans	Rachel Teeter
Laura Gooder	Cindy Miller	Beverly Themm
Kathy Graham	Kathy Painter	Katie Tinker
Sue Henry	Kathy Phelps	Sherry Trierweiler
Jennifer Hoag	Cindy Potts	Jill Uhouse
Renae Klee	Judy Ranney	Dawn Ward

Outdoor Power Engines (M-TEC)

Kerry Harwood	Don Lash	Bob Sussman
Jim Lappan, Jr.	Mark McCully	Mike Zipster

Special Populations

Brenda Dawe	Kathy Marsh	Dale Shantz
Don Dyer	Martha Ryckman	Darlene Stamper
Luann Mabarak	Tim Scherer	