

2004-2006

LFCC catalog

YOUR FUTURE.
OUR FOCUS.



2004-2006

LFCC catalog

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Fall Semester 2004

Classes Begin	August 23
Holiday (College Closed)	September 6 November 25-26 December 24-31
Inauguration of President Sygielski (College closes at 10am)	September 10
Classes End	December 10
Final Examinations	December 13-16
Inclement Weather Make-up Days	December 17, 20, 21

Spring Semester 2005

Classes Begin	January 10
Holiday (College Closed)	March 25
Classes End	April 29
Final Examinations	May 2-5
Inclement Weather Make-up Days	March 21-25
(If not used will become "Spring Break" with no classes scheduled)	
Commencement	May, TBA

Summer Term 2005

10 Week Session

Classes Begin	May 23
Holiday (College Closed)	May 30; July 4
Classes End	August 2
Final Examinations conducted during the last scheduled meeting of each course	

5 Week Sessions

First Five Week Session

Classes Begin	May 23
Holiday (College Closed)	May 30
Classes End	June 27
Final Examinations conducted during the last scheduled meeting of each course	

Second Five Week Session

Classes Begin	June 28
Holiday (College Closed)	July 4
Classes End	August 2
Final Examinations conducted during the last scheduled meeting of each course	

Fall Semester 2005

Classes Begin	August 22
Holiday (College Closed)	September 5 November 24-25 December 9
Classes End	December 9
Final Examinations	December 12-15
Inclement Weather Make-up Days	December 16, 19, 20
Holiday (College Closed)	December 25-31

Spring Semester 2006

Classes Begin	January 9
Holiday (College Closed)	March 24
Classes End	April 28
Final Examinations	May 1-4
Inclement Weather Make-up Days	March 20-24
(If not used will become "Spring Break" with no classes scheduled)	
Commencement	May, TBA

Summer Term 2006

10 Week Session

Classes Begin	May 22
Holiday (College Closed)	May 29, July 4
Classes End	August 2
Final Examination conducted during the last scheduled meeting of each course	

5 Week Sessions

First Five Week Session

Classes Begin	May 22
Holiday (College Closed)	May 29
Classes End	June 26
Final Examinations conducted during the last scheduled meeting of each course	

Second Five Week Session

Classes Begin	June 27
Holiday	July 4
Classes End	August 2
Final Examinations conducted during the last scheduled meeting of each course	

president's welcome letter

Congratulations on choosing Lord Fairfax Community College to pursue your career goals. At Lord Fairfax Community College, we focus on you, listening carefully and advising you on achieving your goals. We provide the resources you need to be successful here: from excellent and experienced faculty and supportive staff and learning resources to tutoring, financial aid and first-rate college and employment contacts.



Utilize our developing job placement services for all full and part-time students seeking employment. Be here as we establish a transfer center with appropriate resources to ensure increased opportunities for LFCC students transferring to four-year institutions. Join over 100,000 LFCC graduates/students/professionals who have learned firsthand what a difference attending community college made in their lives.

At Lord Fairfax Community College, Your Future is Our Focus.

Inside these pages are literally hundreds of opportunities to pursue your interests while you earn an associate, bachelor and master's degree, acquire new skills, enhance your employability, solidify your credentials, and establish a solid academic background to transfer to four-year colleges and universities.

Be with us as LFCC expands traditional and non-traditional offerings at our Middletown and Fauquier campuses and various off-campus locations with online degree programs, increased course offerings on weekends, and through other accelerated options serving more high school dual-enrolled students. We will continue to add apprenticeship, internship, and certification programs. For the most current listings of courses, programs, and schedules, visit our student pages at www.lfcc.edu.

The Catalog has much of the information you need to plan your studies through sequential course work. The Lord Fairfax Community College Catalog of academic and certification programs in effect at the time of your enrollment comprises graduation-completion requirements for the program you choose. You need to retain the relevant copy of the Catalog for guidance on requirements throughout your course of studies.

You are joining Lord Fairfax Community College at a crucial and exciting time in the college's history. Established in 1970, Lord Fairfax Community College has always been a respected institution of higher learning, with faculty and staff focused on the educational needs and desires of our students and the communities we serve. Now we're expecting to help you achieve even more.

Virginia's Community College System has challenged all community colleges to respond to the Commonwealth's most pressing needs in the areas of access to higher education, workforce development, and economic opportunity. The VCCS pledge is to become world-class by 2009. Lord Fairfax Community College pledges to achieve much of its world-class status by 2007.

You could not find a better choice than LFCC to achieve your goals. We will help you accomplish your future. You are our No. 1 focus.

A handwritten signature in cursive script that reads "John J. Sygielski". The signature is written in dark ink and is positioned above the printed name and title.

John J. "Ski" Sygielski
President

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general information



- History of the College
- General Information
- Goals
- Approval & Accreditation
- Location & Facilities
- Programs
- Educational Foundation

History of the College

Lord Fairfax Community College is located in an historic cultural area of Virginia. The community college was named for Thomas 6th Lord Fairfax who in 1747 established his residence, Greenway Court, at nearby White Post. For 34 years, Lord Fairfax managed his vast property of more than five million acres that extended from Virginia's Northern Neck to Fort Duquesne, now Pittsburgh.

Born at Leeds Castle in 1693, Lord Fairfax graduated from Oxford College and first came to America in 1735 to inspect his inheritance from his grandfather, Lord Culpeper. The Fairfax landholdings included thousands of acres in the Shenandoah Valley encompassing the present counties of Clarke, Frederick, Page, Shenandoah and Warren, as well as a substantial portion of West Virginia.

Lord Fairfax was a respected force in the formation of the new America. He befriended many including George Washington, his surveyor. He supported General Braddock and was known and respected by "King" Carter, William Byrd, and Governors Gooch, Dinwiddie and Dunmore. Lord Fairfax died at age 88 in 1781 at Greenway Court and was buried at Christ Church in Winchester. Lord Fairfax Community College pays homage to his respected name and legacy.



Thomas Lord Fairfax VI

Lord Fairfax Community College opened its doors in September 1970 to 577 students. The College held its first graduation in June 1972 with 92 students receiving their degrees. The college received accreditation from the Southern Association of Community and Junior Colleges on December 18, 1972.

The first College President was Dr. William H. McCoy, who remained in this position until 1987. Dr. Marilyn C. Beck became the second President of Lord Fairfax Community College in 1988 and served until 2003. Dr. John J. "Ski" Sygielski became the College's third president in August 2003 and oversees the administration of the educational needs of over 5,000 credit and over 6,000 non-credit students who attend Lord Fairfax Community College annually.

General Information

Lord Fairfax Community College is a comprehensive, nonresidential, two-year public institution of higher education. It is part of a statewide system of community colleges serving Clarke, Fauquier, Frederick, Page, Rappahannock, Shenandoah and Warren Counties, and City of Winchester citizens.

The College is governed by policies set by the State Board for Community Colleges with support and guidance from the Lord Fairfax Community College Board. Financed primarily with state funds, the college supplements funding with contributions from the participating localities and tuition fees. As the vision statement, mission and goals reflect, Lord Fairfax Community College is committed to excellence in all its programs and services while maintaining flexibility, accessibility and responsiveness. Helping each student achieve his or her future goals is the focus of Lord Fairfax Community College.

Mission

By 2007, LFCC will be a prominent comprehensive community college of exceptional quality.

Vision

LFCC enriches communities as we provide exemplary educational opportunities based on our core values.

Values

LFCC embraces the following core values:

Learning

We foster an environment that ignites and sustains a passion for lifelong learning.

High Performance

We are focused, responsive, collaborative and accountable.

Integrity

We exemplify honesty, character and respect for our communities.

Positive Spirit

We value creativity, enthusiasm and a “can-do” attitude.

Diversity

We honor the uniqueness of individuals and communities.

Our Goals

In support of the VCCS’s pledge to become world-class by 2009, LFCC has set its course to be a prominent comprehensive community college of exceptional quality by 2007. By being strategic, we will fulfill this vision by accomplishing the following goals:

Teaching and Learning

Focus on Quality by:

- Providing relevant professional development for all employees, including a mentoring program for new adjunct faculty, a Summer Faculty Development Institute, and Leadership Training for Administrators.
- Setting high standards for and implementing stringent evaluation measures for all teaching faculty, full-time classified employees, and administrators.
- Ensuring that technology and facilities are sufficient for a world-class teaching and learning environment.

Serve More Students by:

- Expanding our traditional and non-traditional offerings by adding at least two online degree programs, by increasing the number of courses offered on weekends and through other accelerated options, by serving more dual-enrolled students, and by adding apprenticeship, internship, and certification programs.

Student Success

Enhance Students’ Chances for Success by:

- Increasing retention and graduation rates by helping students set and accomplish individual educational goals through an effective advising system on campus and virtually and enhancing support services, establishing structured learning communities, and adding academic, cultural, and wellness activities.

- Offering job placement services to all full and part-time students seeking employment and increasing successful job placement of students.
- Developing a transfer center with appropriate resources and ensuring that LFCC will increase student transfer rates to four-year institutions.

Partnerships and Outreach

Connect with our Communities by:

- Identifying needs of various groups in the communities we serve and providing programs and services conveniently located to them.
- Increasing the number of individuals served through workforce training programs by 20 percent.
- Providing customized training to at least 20 new companies.
- Raising the image and awareness of LFCC by executing a formal marketing plan that will promote the College’s programs and services to all of its constituents.

Resource Development

Increase Resources to Support the College’s Mission by:

- Establishing an alumni association and a faculty endowment program.
- Implementing successfully a fully integrated fundraising plan that includes annual, corporate, in-kind, planned giving, capital, grant writing, and political action programs.

Approval and Accreditation

Lord Fairfax Community College operates as part of the Virginia Community College System governed by the State Board of Community Colleges. The State Council of Higher Education approves the associate degree curricula of the College for Virginia. Lord Fairfax Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097, telephone 404.679.4501) to award associate degrees. An institutional member of the American Association of Community Colleges, Lord Fairfax Community College is approved by the U. S. Department of Education for various federal funding programs.

Location and Facilities



Fauquier Campus

The Fauquier Campus of Lord Fairfax Community College offers a full range of associate degree and certificate programs, as well as continuing education, workforce training, dual enrollment, and community services. Lord Fairfax Community College is committed to serving lifelong learning needs of the community through both credit and non-credit educational opportunities.

In December 1988, Fauquier County Executive Bob G. Sowder donated 2.5 acres of property to establish a community college campus. The renovated barn on this property became the Fauquier Campus of Lord Fairfax Community College, which was later expanded when the General Assembly appropriated \$7.2 million in 1996 to construct the current 60,000 square foot classroom and administrative building.

On October 22, 1999, the College community celebrated the dedication of the new campus building, located on U. S. Route 29, just south of Warrenton. The Wolk Hall classroom and administrative building is named for Paul and Sheila Wolk, whose generosity to Lord Fairfax Community College has made quality educational opportunities available to many students on both campuses.

Bob G. Sowder Library

The Bob G. Sowder Library contains books, computers and a wide range of media to support College programs and personal interests. The Fauquier campus library is home to a growing collection of resources. Materials move between the College's two campuses daily by courier. Special facilities include 11 study rooms, nine for one or two persons and three large group study/library instruction rooms. Experienced library staff provide reference and research services.

The Rose Loeb Student Center is a dramatic space where students share activities, meals, and study time. Students also receive special assistance with study skills and assistive technologies in the Learning Assistance Center.



Middletown Campus

The Lord Fairfax Community College Middletown Campus is on a 120-acre tract in the northern Shenandoah Valley approximately 10 miles south of Winchester, Virginia. Nestled among the Blue Ridge, Massanutten, and Allegheny Mountains, with Interstate highways 66 and 81 and U. S. Route 11 adjacent, the campus is easily accessible. The original College building includes classrooms, laboratories, administrative and faculty offices, a business office, the William M. Dietel Bookstore, and the Fredy and Klara Kumkli Student Center.

In 1985, Lord Fairfax Community College built a technology center on the Middletown Campus to add a Special Events Center, computer labs, classroom and faculty offices. During the 1993 Commencement Exercises, the building was officially named the Alson H. Smith, Jr. Technology Center. In 1994, the Learning Resources Center construction was completed and the facility was dedicated in April 1995 in honor of benefactor Paul Wolk of Fauquier County. Outside facilities include two Quonset style double polyfilm greenhouses, providing laboratory space for the Horticulture program and a regulation 400-meter Olympic-size track and fitness trail. A mobile computer classroom provides an innovative source of delivery for instructional purposes.

Libraries and Learning Resources

The libraries of Lord Fairfax Community College are open to the public without charge. The collection of more than 65,000 cataloged items supports the College's academic programs and student interests. The collection consists of books, journals, video recordings, DVDs, compact discs, computer programs, newspapers, electronic books and a host of other print-based materials. The library catalog is accessible through the Internet at www.lfcc.edu.

Materials not available in the libraries can be obtained through Interlibrary Loan from other

libraries worldwide. The libraries participate in a statewide academic consortium called VIVA, providing access to electronic databases of all kinds, including over 8,000 full text journals. Off-campus access to all of these resources are available to students, faculty and staff. The libraries also provide high-speed access to the Internet.

The highly skilled library staff is dedicated to providing the highest quality service possible. They assist students in the use of the Internet and library research databases.

Paul Wolk Library

Most of the Lord Fairfax Community College collection of materials is housed in the Paul Wolk Library. The library's Audio-Visual Services support faculty in their use of the most modern teaching methods and materials and provide technical support for the College's distance learning services. The library houses the Bill Remington Archives Room and the Jesse and Rose Loeb Learning Assistance Center.

Programs

Lord Fairfax Community College is a comprehensive institution of higher education offering programs of instruction generally extending not more than two years beyond high school level.

Student Success

The student success program enhances the educational experience of the student. Student Success facilitates personal growth and development through special course offerings as well as many kinds of social, cultural, and recreational student activities.

Occupational-Technical Education

LFCC students are prepared to meet the increasing demand for technicians, semi-professional workers, skilled craftsmen and artisans, supervisors and managers for employment in industry, business, the professions, and government. The occupational-technical curricula at Lord Fairfax Community College are planned primarily to meet these needs in the communities the College serves.

College Transfer-University Parallel Education

The College Transfer-University Parallel program focuses on college freshmen and sophomore courses in arts and sciences and pre-professional programs meeting standards acceptable for transfer to

baccalaureate degree programs in four-year colleges and universities. To ease the transfer process, students are urged to work with an LFCC advisor and maintain contact with four-year college representatives before selecting courses. Admission and graduate requirements vary widely and sometimes change over time.

Workforce Services and Continuing Education

Lord Fairfax Community College provides workforce development opportunities for all residents of the College service region. Programs help to continue general education interests and update knowledge and skills.

These programs include:

- Apprenticeship course work;
- Business and industry educational partnerships;
- Credit certificate programs;
- Non-credit vocational offerings; pharmacy tech, security, plumbing, computer training, leadership, building trades, servsafe, OSHA, autocad, optician, and online programs;
- Work Keys;
- Workshops, seminars, cultural events, public lectures, forums, conferences, institutes and meetings;
- Command Spanish.

Special Training Programs

Lord Fairfax Community College, in cooperation with the Special Training Division of the Virginia Department of Economic Development, provides instruction for new and expanding industries.

This program incorporates job analysis, instructor recruiting and/or training and financial support for employee instruction. New industries planning to locate in the area or industries planning expansion interested in this training should contact the Office of Workforce Services and Continuing Education on either campus of Lord Fairfax Community College or the Department of Business Assistance, Richmond, Virginia.

Developmental Studies

Developmental courses help prepare individuals for admission to the occupational-technical program and to the college transfer-university parallel program in the community college.

Specialized Regional and Community Services

The facilities and personnel of the College are available to provide specialized services for meeting the needs of the region. This service includes non-classroom and non-credit programs, cultural events, workshops, meetings, lectures, conferences, and seminars. Special community projects at LFCC provide cultural and educational opportunities for area residents.

LFCC Educational Foundation, Inc.

The Lord Fairfax Community College Educational Foundation, Inc. was formed in 1979 to foster the growth, progress, and general welfare of LFCC. It is a tax-exempt, not-for-profit organization whose purpose is to generate resources and support for the College. The Lord Fairfax Community College Educational Foundation assists Lord Fairfax Community College in the following ways:

- Providing scholarships for students at the College;
- Fundraising and contributing funds to support the programs, activities, and goals of the College;
- Accepting and disbursing special gifts to the College; and
- Sponsoring fundraising and friend-raising events at the College such as the Annual Fall Shrimp Feast, Cash Party, Dollars for Scholars Celebration, a reception honoring scholarship recipients and donors, local art exhibits, and book signings.

Gifts to the Lord Fairfax Community College Educational Foundation, Inc. can be made in many ways, each of which is important to the growth and development of the College. Undesignated gifts enable the Educational Foundation to meet the needs of the College in an area of particular interest to the donor. Examples of opportunities for giving include:

- Donating gifts of cash, securities, real estate, and personal property;
- Providing gifts of equipment, materials, and service;
- Deferring gifts through estate planning, bequests, and insurance;
- Establishing memorial gifts;
- Matching corporate gifts;
- Endowing a scholarship, faculty chair, program, and/or general operating expense;
- Attending friends/fundraising events;
- Volunteering time and services;
- Supporting the College through goodwill and strong community relations; and
- Participating in the Learning Tree Scholarship Program.

The Foundation is registered with the State Corporation Commission of Virginia and all donations are fully deductible under Section 501 of the Internal Revenue Code.

administrative information



- Admission Requirements
- Expenses
- Academic Information
- Classification of Students
- Credits
- Continuing Education
- Academic Recognition
- Graduation
- Degrees & Certificates
- Transfer Credit Policy

Admission Requirements

General Admission to the College

Any person who has a high school diploma, its equivalent, or is 18 years of age, and is able to benefit from a program at the College may be admitted to Lord Fairfax Community College as a curricular or non-curricular student. To do so, a completed application must be submitted to the Office of Admissions and Records. The College evaluates special cases for acceptance.

All curricular students must provide:

- Completed official application for admission with applicant's Social Security number included, and
- Unless otherwise specified, official transcripts from all high schools, colleges, and universities attended. (Not needed for Career Studies Certificate option.)

All non-curricular students must complete an official application for admission and provide the applicant's Social Security number. The College may require additional information for admission.

Minors are considered for admission with signed consent from a parent/legal guardian and approval from the minor's public school. Home-schooled minors or their parents should contact the Admissions and Records Office for admission requirements.

After a person has been admitted to Lord Fairfax Community College, the student is encouraged to meet with one of the College counselors to:

- Discuss educational interests,
- Determine curricular needs, and
- Plan admission to a specific curriculum or program at the College.

Please direct all inquiries concerning application to:

Admissions and Records Office
 Lord Fairfax Community College
 173 Skirmisher Lane
 Middletown, VA 22645
 540.868.7105
 800.906.5322, extension 7105 Toll Free
 540.868.7005 Admissions Fax
 Website Address: www.lfcc.edu

Admission to Specific Degree or Certificate Program

A student must formally request admission to, and receive approval for, each program (curriculum) in

which he or she plans to graduate. Advisors are available to assist students in their application.

In addition to general admission requirements, specific requirements are prescribed for each curriculum of the College. These requirements are listed in the Instructional Programs Information section of the College Catalog.

For admission to associate degree programs, a person must be a high school graduate, or possess a General Education Development Certificate (GED), or complete an approved Developmental Studies program to satisfy prerequisites and be eligible. Students not initially meeting admission requirements for a specific program may qualify to be placed in another curriculum or be considered non-curricular until requirements are satisfied and they are granted admission to the curriculum of their choice.

Admission to Health Professions Programs (Practical Nursing, Nursing, Surgical Technology, and Dental Hygiene)

Students must apply for admission to Health Professions Programs as well as apply for admission to the College. Admission requirements and application materials are available through the Health Professions Services Office and specific requirements are in this catalog for each program.

Admission to Courses

Students may enroll in courses only when prerequisites for the courses are met.

Note: Not all courses have prerequisites. See Course Description section and the semester schedule of courses.

Admission Priorities

When enrollment must be limited, first priority is given to all qualified applicants who are residents of the political subdivisions supporting the College and to Virginia residents not having access to a given program at their local community college. Such students must apply for admission to the program prior to registration or 120 days prior to the term. Selected programs may have specific earlier deadlines. In addition, residents of localities where the College has clinical-site or other agreements receive equal consideration.

Special Admission Enrollment

High School Dual Enrollment

High school juniors or seniors who are 16 years old or older and have the approval of their principal, may

be considered for enrollment in selected Lord Fairfax Community College courses through the Dual Enrollment Program. The College grants semester hour credit for successfully completed courses and the credit may also be used to meet high school graduation requirements. Dual enrollment courses are taught at the high school — day or evening — or at the College as part of its normal campus schedule.

Students interested in dual enrollment should contact their high school counselor or principal and the Lord Fairfax Community College Admissions and Records Office regarding eligibility and available courses. Lord Fairfax Community College works in cooperation with all public high schools in its region to establish and grow its Dual Enrollment courses.

High School Tech – Prep Articulation

Recent local high school graduates may be eligible to receive credit for certain high school courses. The Office of Dual Enrollment and Tech-Prep maintains a list of eligible courses. Students are encouraged to contact the Coordinator of Dual Enrollment and Tech-Prep to receive credit for their courses in vocational/technical subjects.

Advanced Placement (AP) Program

Lord Fairfax Community College awards credit for completion of selected AP examinations on which a score of 3, 4, or 5 is attained. To receive credit, students must:

- Be admitted to the College;
- Be admitted to a program;
- Submit an official AP score report to the Educational Testing Service (ETS); and
- Submit a signed request to be awarded credit.

Eligible students should contact the Admissions and Records Office. Credits awarded by Lord Fairfax may or may not be accepted at other institutions.

Students are encouraged to contact the college or university to which transfer is anticipated to determine whether credit is granted for completion of AP courses.

Transfer of Credit from Other Postsecondary Institutions

Credits earned elsewhere either before or after admission to the College are reviewed and evaluated on a case-by-case basis. Generally, the institution must be accredited, the student must have been in good standing, and only courses with a grade of “C” or better are considered. Requests must be submitted to the Admissions and Records Office to have an evaluation completed. Transfer of credit does not

guarantee curriculum substitution of specific course requirements. Students are urged to meet with a counselor to determine specific curriculum requirements.

College Level Examination Program (CLEP)

The College recognizes most general and subject examinations. College policy is periodically reviewed; therefore, students should request current information from counselors and faculty. Students should also consult colleges and universities where they plan to transfer.

The Learning Assistance Center (LAC) is an open CLEP center, providing convenient test administration to students of LFCC and other colleges.

Defense Activity for Non-Traditional Education Support (DANTES)

The College recognizes some DSSTS (DANTES subject standardized tests). College policy is periodically reviewed; therefore, students can obtain current information from counselors and faculty. Students should also consult colleges and universities where they plan to transfer.

The Learning Assistance Center (LAC) is an open DANTES test center, providing convenient test administration to students of LFCC and other colleges.

Service Members Opportunity College (SOC)

Lord Fairfax Community College has been designated an institutional member of SOC, a group of colleges and universities providing voluntary post-secondary education to members of the military worldwide.

Lord Fairfax recognizes the unique nature of the military lifestyle and eases the transfer of relevant course credits, providing flexible academic residency requirements, and crediting learning from appropriate military training and experience as well as other non-traditional sources. Those interested should contact the Admissions and Records Office.

Admission Policy for International Students

LFCC is authorized by the United States Immigration and Naturalization Service (INS) to enroll non-immigrant international students. It is the policy of the College to admit qualified international students already residing in the service area. If an applicant requires a student visa status (F1), the prerequisites listed below must be met to issue a certificate of eligibility for student visa status (I-20 form).



An applicant must:

- Be in the United States at the time of application to the College;
- Submit documentation of eligibility for admission, including the following items:
 - a) The equivalent of an American high school diploma;
 - b) Official transcripts and records of previous educational experiences translated into English and certified by the institution attended;
 - c) Verification of financial support;
 - d) An “official” TOEFL score of at least 500 (173 on computerized version); and
 - e) Documentation of possessing, or be in the process of obtaining, personal health insurance coverage for the period of time the applicant expects to be enrolled at the College.

Students who are I-20 applicants must insure that all required documents and test scores arrive at least 60 days prior to the beginning of classes for the semester. A form I-20 is issued when:

- The required documentation is received,
- The student is admitted for full-time enrollment, and
- The student is placed in a degree program.

If an individual already has F-1 status but wishes to transfer to LFCC, the applicant must first complete one satisfactory term at the school issuing the I-20. If individuals hold another type of visa, or need further information about student visas, they should contact the Admissions and Records Office.

Senior Citizens Higher Education Program

Eligible Virginia senior citizens (residents 60 years of age or older who have had their legal domicile in Virginia for one year or more) may audit credit courses or enroll in non-credit courses. No tuition or fees apply except those for course materials, such as laboratory fees. Eligible Virginia senior citizens may enroll in courses for academic credit, full or part-time, and pay no tuition if their Virginia taxable income for the preceding year did not exceed \$15,000.

For professional development courses, a percentage of the tuition may be charged.

Senior citizens are required to complete an Application for Admission. They will be accepted in a course after all full and part-time students paying regular tuition fees have been accommodated, on a space-available basis unless they have completed 75 percent of the requirements necessary for a degree. At such time senior citizens can enroll in courses at the same time as other tuition-paying students.

Interested persons should contact the Admissions and Records Office.

Students Transferring from Other Colleges

Usually, transfer students eligible for readmission at the last college attended are also eligible for admission to Lord Fairfax Community College.

Lord Fairfax Community College commits resources to help students succeed in their program of study. Generally, if a transfer student is ineligible to return to a particular curriculum in a previous college, he or she is not allowed to enroll in the same curriculum for at least one semester or until after the completion of an approved preparatory program. The Admissions and Retention Committee of the College decides on each case and can impose special conditions for admittance.

Transfer students are asked to consult the Admissions and Records Office at LFCC for an assessment of credits to determine their standing before registering for courses. For transfer credit to be awarded, the courses must have been completed at an accredited institution. Generally no credit is given for courses with grades lower than "C." A transfer student may be advised to repeat a course in order to make satisfactory progress in the curriculum.

Expenses

The Virginia Community College System is dedicated to giving individuals an opportunity for the continuing development and extension of skills and knowledge, along with the prospect to increase an awareness of his or her role and responsibility to society.

In an effort not to exclude any Virginia resident from the opportunities offered by Lord Fairfax Community College, the State Board for Community Colleges has consistently maintained tuition and fees at the lowest possible level. LFCC realizes that any tuition or fee may represent a barrier to those wishing to pursue further education. The College has funds available to help students needing financial assistance. (See the section entitled "Financial Assistance.") The College may be able to assist in providing funds for tuition, books and other expenses for students who qualify.

Eligibility for In-State Tuition

To be eligible for in-state tuition, a person (or in the case of an unemancipated minor or dependent student, the parent or legal guardian) must be and have been legally domiciled in Virginia for a period of at least one year prior to the term for which such

tuition rate is sought. Domicile means "the present home of an individual where he or she returns from temporary absences and where he or she intends to stay indefinitely." The student must establish eligibility by clear and convincing evidence.

Anyone not eligible through his or her own domicile or that of a parent or legal guardian, or spouse, may be eligible under the military exception, the military spouse or dependent exception, the nonresident taxpayer's exception or a special arrangement contract. Those interested should contact the Admissions and Records Office for additional information.

Any applicant denied in-state tuition has a right to appeal according to College policy and must submit a written appeal to the Vice President of Student Success within ten calendar days of denial notification. A copy of the full appeal policy is available in the Admissions and Records Office.

Tuition

Tuition fees are set by the State Board for Community Colleges and are subject to change. Consult the College website for current fee information: www.lfcc.edu.

Tuition may be paid with cash, checks, money orders, and MasterCard or Visa credit cards. Online credit card payment using Visa or MasterCard is available. Tuition paid by check or credit card must be for the exact amount. The College is not permitted to cash checks or give change for checks written for an amount greater than that due for tuition and fees. Students enrolling in two or more community colleges simultaneously pay tuition at each college based on their status at either college.

Separate payment is required for bookstore purchases; one payment cannot be accepted for both tuition and books.

Additional Expenses

Payment of tuition and fees enables students to use the library, bookstore, parking lot, student lounge and other facilities of the College. Students are required to pay charges for any College property they damage or lose (such as laboratory or shop equipment, supplies, library books and materials).

Books and Materials

Students are expected to obtain their books, supplies and consumable materials needed in their studies.

Student Activity Fee

A Student Activity Fee supports student events and programs. Funds in this account are spent only for student activities, subject to the review of the

College administration. The College Board is responsible for the operation and control of these funds under the specific methods and procedures established by the State Board of Community Colleges and approved by the State Auditor.

A Student Activity Fee of \$0.65 per credit hour due at the time of registration is charged each semester for all students taking up to twelve credit hours in on-campus classes for a maximum of \$7.80. The Student Activity Fees fund various student activities and events throughout the school year. This fee is subject to change.

Parking Facilities Maintenance Fee

The College charges a Parking Maintenance Fee of \$7 per semester to maintain and repair existing parking facilities and construct new parking facilities. Parking maintenance includes parking lot paving, painting, lighting repairs, security and other associated costs. A parking facilities maintenance fee will be charged to all on-campus students. The parking fee is subject to change.

Technology Fee

A Technology Fee of \$3.15 per credit hour is charged to all students to support technology initiatives within the Commonwealth of Virginia. The technology fee is subject to change.

Additional Fees

Specific programs or courses may have additional fees. Students should consult specific program or course documents for details.

Transcript Requests

There is no fee charged for sending transcripts. This policy is subject to change. Any request for a transcript must include the signature and student identification number/Social Security number of the student.

The College does not provide copies of transcripts from other schools. Such copies must be obtained from the originating source. Any student desiring to have his or her transcript picked up by someone else must include written authorization to do so with the request for the transcript.

Accounts

Each student who enrolls at Lord Fairfax Community College is expected to meet his or her financial obligations to the College before such services as transcripts, certificates, diplomas or degrees will be performed or issued to the student. A student with delinquent accounts may be withdrawn, refused admittance to classes, precluded from registering for

a course(s), or subject to civil court action. All of these are usually preventable if students discuss their situations with the Financial Aid Officer or the Budget and Financial Services Director to correct the situation.

The College is responsible for handling all student organizations' financial accounts. Policies and procedures are described in the current Student Handbook which is available online at www.lfcc.edu.

Administration and Collection Charges

Past due accounts are charged a 1% per month, 12% per year, administrative and collection fee. The College utilizes a collection agency to assist in the collection of past due amounts. Costs of all collection efforts are passed to the debtor. Past due accounts sent to a collection agency are assessed an additional collection charge. This charge is calculated to provide the normal collection fee to the collection agency and to provide the full amount due the College.

LFCC participates in the Set-Off Debt Collection Program which permits the College to collect past due amounts from its debtors' individual Virginia tax refunds and lottery winnings.

Dishonored or Nonsufficient Funds Checks

A service charge of \$20 is assessed for any check dishonored by a student's bank. Student accounts must be cleared immediately in order for the College to continue to provide service.

Refunds

Students are eligible for a refund for the credit hours dropped during the add/drop period of the standard or nonstandard session of the course(s). The refund will be at the per-credit rate, but no refund will exceed the student's tuition charges. A refund is given for the difference between:

- The student's tuition charges and
- Revised tuition charges using the per-credit rate calculated from the number of credit hours for which the student remains enrolled.

Determination of Refund

To be eligible for refund under any of the above circumstances, a student must complete the drop procedure within the student information system. Eligibility for a refund is determined by the date the drop transaction is completed. The number of times a course has met is not used in determining eligibility for a refund. Questions regarding refunds should be directed to the Business Office.

The college has a military emergency refund policy that complies with state and federal regulations.

Academic Information

Academic Renewal

The purpose of academic renewal is to adjust the cumulative grade point average (GPA) of students who earned grades of "F" or "D" previously. Students who return to the College after a separation of five (5) consecutive years or more AND earn a 2.5 GPA in the first 12 semester hours completed after re-enrollment may petition for academic renewal.

Contact the Office of Admissions and Records to obtain additional information and a petition form.

Attendance

Attendance regulations limit class absences. Students are expected to attend all of their regularly scheduled classes. The College has no system of recognized cuts. Faculty are responsible for attendance records and all matters related to attendance in their classes.

Change of Registration (Withdrawal and Adding Courses)

Students must follow established procedures for making any changes in their program after registration. Failure to do so could place their college records in jeopardy.

Withdrawal (From a Course or the College)

A registration withdrawal form must be signed by the student. The withdrawal request becomes effective the date received in the Admissions and Records Office. Students cannot rely on a verbal statement as evidence of withdrawal. After the refund eligibility date, withdrawals require the course professor's signature.

If a student's request to withdraw from a course is received by the last date to qualify for a refund for the course, the student is removed from the class roll and no grade is assigned.

Generally, the College does not withdraw a student from a course because of a lack of attendance. Withdrawing is the responsibility of the student. Failure to officially withdraw will usually result in a grade of "F" being recorded on the student's permanent academic record.

A student may withdraw from a course without academic penalty during the period equivalent to the first 60% of a term (session) and receive a grade of "W." After that time, the student receives a grade of

"F." An exception can be considered when the following two conditions exist:

- There are serious mitigating circumstances such as medical emergencies or other extreme conditions (as determined by the College), and
- The student is passing at the time of the effective date of withdrawal.

The mitigating circumstances must be documented by the student and presented with the request to withdraw. If approved, the student may receive a grade of "W". A copy of the documentation will be filed in the Admissions and Records Office and retained according to records retention policy.

* Financial Aid Students are strongly advised to meet with a financial aid officer prior to requesting a withdrawal.

Adding Courses

Students are allowed to register late or add courses only through the end of the add period. An exception occurs when a student enrolled in a math course is recommended by that math faculty member to:

- Add developmental math, or
- Drop the credit math and add developmental math, or
- Change to a higher or lower level math course.

Such an exception is permitted through the last day of classes of the fourth week of each semester. A similar practice is used for English courses.

Cancellation of a Course/Section by the College

A student must contact the Admissions and Records Office to receive a refund and/or add another course to replace the cancelled section.

Academic Warning

Any student who fails to make a grade point average (GPA) of 2.0 or higher for any one semester, or who fails any course, receives the statement "Academic Warning" on the respective semester academic record.

Academic Probation

Any student who fails to maintain a cumulative GPA of 1.5 is placed on academic probation. The statement, "Academic Probation," is placed on the student's academic record. A student on academic probation is required to consult with a faculty advisor or counselor and may be required to take less than the normal academic load in the next semester of attendance. Students are placed on probation only after they have attempted 12 semester credit hours. A person on probation is ineligible for appointive or elective office in student organizations, unless the

Vice President of Student Success or designee grants special permission.

Academic Suspension

The student on academic probation who fails to attain a semester GPA of 1.5 for the next semester in attendance is subject to academic suspension. Academic suspension normally lasts one semester unless the student reapplies and is accepted for readmission to another curriculum of the College. The statement "Academic Suspension" is placed on the student's academic record. A student who has been informed of the Academic Suspension may submit an appeal in writing to the Chair of the Admissions and Retention Committee for reconsideration. Suspended students may be readmitted after the suspension period by submitting a written request for readmission. Students are placed on suspension only after they have attempted 24 semester credit hours.

A student who is reinstated to the College after having been academically suspended must achieve a semester GPA of 2.0 or better for the semester of reinstatement or be academically dismissed.

Academic Dismissal

A student on academic suspension who does not maintain at least a 2.0 GPA for the semester of reinstatement will be academically dismissed. A student on academic suspension who achieves a 2.0 GPA for the semester of reinstatement must maintain at least a 1.5 GPA in each subsequent semester of attendance. A student remains on probation until the cumulative GPA is raised to a minimum of 1.5. Failure to attain a 1.5 GPA in each subsequent semester until the cumulative GPA reaches 1.5 results in academic dismissal.

Academic dismissal normally is permanent unless, with good cause, the student reapplies and is accepted under special consideration by the Admissions and Retention Committee of the College. The statement "Academic Dismissal" is placed on the student's academic record.

Examinations

All students are expected to take their examinations at regularly scheduled times. No exceptions will be made without the permission of the Vice President of Learning or another appropriate academic administrator and the instructor of the course.

Normal Academic Load

The normal academic load for students is 15–17 credits. The minimum full-time load is 12 credits and the normal maximum full-time load is 18 credits

excluding College Success Skills (STD/SDV 100). A student wishing to carry an academic load of more than 18 credits must have the signed approval of a counselor/faculty advisor.

Course Substitutions for Program Requirements

All courses listed for a program are considered required courses. Substitutions for required courses must be approved in writing by the student's faculty advisor and the appropriate Dean. The Admissions and Records Office provides course substitution forms.

Repeating a Course

Any attempted course that is a repeat of a course previously attempted under the semester system, is used in the calculation of the cumulative grade point average (GPA). The previous semester system attempts of the repeated course appear on the academic record, but are not used in the cumulative GPA calculation or to satisfy graduation requirements. All courses attempted under the quarter system appear on the academic record and are included in the calculation of the GPA. Questions concerning the repeat policy should be directed to the Admissions and Records Office.

A student may repeat a course previously taken but should normally be limited to two enrollments of the same course. Requests to enroll in the same course more than twice must be documented and approved by the Vice President of Learning or designee. This policy does not apply to General Usage courses numbered in the 90s, 95s, 96s, 97s, 98s or 99s.

Classification of Students

Student classification categories:

Curricular Students: Students who have a high school diploma, GED, or its equivalent, or are otherwise determined qualified for admission are designated curricular students. Files in the Office of Admissions and Records must contain all of the information required for general admission to the College as curricular students, and students must have formally requested and been admitted to one of the curricula of the College.

Non-curricular Student: A student who has not been formally admitted to one of the curricula of the College.

Full-time Student: A student enrolled for 12 or more credits in a term.

Part-time Student: A student enrolled for fewer than 12 credits in a term.

Freshman: A student is classified as a freshman until 30 semester credits have been completed.

Sophomore: A student is considered a sophomore after successfully completing 30 semester credits.

Credits

A credit is equivalent to one collegiate semester hour credit. Each semester hour of credit given for a course is based upon approximately one academic hour (50 minutes) of formalized, structured instructional time weekly for 15 weeks (or equivalent) by each student. In addition to instructional time, a scheduled evaluation or examination period is given for each semester hour of credit. Courses may consist of lectures, out-of-class study, laboratory and shop study, or their combinations.

Grading System

The grades of A, B, C, D, and P are passing grades. Grades of F and U are failing grades. R and I are interim grades. Grades W and X are final grades carrying no credit.

Explanation of Grades

The quality of performance in any academic course is reported by a letter grade, assigned by the instructor. These grades denote the character of study and are assigned quality points as follows:

A	Excellent 4 grade points per credit
B	Good 3 grade points per credit
C	Average 2 grade points per credit
D	Poor 1 grade point per credit
F	Failure 0 grade point per credit
I	Incomplete

No credit, used for verifiable, unavoidable reasons. Requirements for satisfactory completion are established through student/faculty consultation. Courses for which the grade of "I" (incomplete) is awarded must be completed by the end of the subsequent semester or another grade (A, B, C, D, F, W, P, R, S and U) is awarded by the instructor based upon completed course work. In the case of "I" grades earned at the end of the Spring Semester, students have through the end of the following Fall Semester to complete the requirements. In exceptional cases, extensions of time needed to complete course work

for "I" grades may be granted beyond the subsequent semester, with the written approval of the Vice President of Learning.

An "I" grade can change to a "W" grade only under documented mitigating circumstances. The Vice President of Learning or another appropriate academic administrator must approve the grade change. A copy of this documentation is filed in the Admissions and Records Office and retained according to records retention policy. The student is responsible for initiating the removal of the incomplete. If the College does not employ the faculty member who assigned the incomplete during the semester following its issuance, the appropriate Dean must be contacted.

P Pass

No grade point credit. Applies only to non-developmental studies courses. Pass grades carry academic credit but are not included within grade point average calculations. A maximum of seven (7) semester credit hours from courses for which the "P" grade has been awarded may be applied toward completion of a degree, diploma or certificate.

R Re-enroll

No credit. Student must re-enroll in the course in order to complete the course objectives.

S Satisfactory

No grade point credit. Indicating satisfactory completion of course objectives, this is used only for developmental studies courses numbered 01–09 and ESL courses numbered 11–16.

U Unsatisfactory

No grade point credit (applies to developmental studies courses numbered 01–09 and ESL courses numbered 11–29).

W Withdrawal

No credit. A grade of withdrawal indicates an official withdrawal from a course after the last date to be eligible for a refund.

X Audit

(D) Academic Renewal

(F) Academic Renewal

No credit.

Grade Point Average

Grade point average (GPA) is determined by dividing the total number of grade points earned in courses by the total number of credits attempted. The cumu-

lative GPA includes all courses attempted. When students repeat a course, only the last grade earned is counted in the computation of the cumulative GPA and for satisfying curricular requirements.

Grading—Developmental Studies Courses

A grade of “S” (Satisfactory) is assigned for satisfactory completion of developmental studies courses numbered 01–09 and ESL courses numbered 11–29. “S” grades are not included in grade point average calculation.

Students making satisfactory progress but not completing all of the instructional objectives for a developmental studies course or an ESL course will be graded with an “R” (Re-enroll) and must re-enroll to complete the course objectives.

Students not making satisfactory progress in a developmental studies course or an ESL course will be graded “U” (Unsatisfactory). Students should consult with the instructor to determine the subsequent sequence of courses for students receiving a grade of “U.”

Grade Reports

Grade reports are available to students by the published date each semester. Students must access the student information system to view their grade report.

Grade Appeal Policy

Evaluation of student performance, reflected in the final course grade, becomes a part of the permanent student record of the College and is recorded on the College transcript for the student. Based upon factors relating to the achievement of course objectives, this grade is assessed by the instructor according to the policies of the College, and is considered final, unless a student files an appropriate appeal in a timely manner.



If a student is dissatisfied with a course grade issued by the instructor, and the student has reason to believe the grade issued is incorrect, the following appeal provisions, and no other, should be followed by such student:

The student will, within ten (10) working days following the issuance (published posted date) of the grade in question, confer with the instructor who issued such grade and present a written outline of the reason(s) that it is felt the grade has been incorrectly issued. The instructor will, within three (3) working days following such conference, advise such student in writing what change, if any, is being made as a result of the conference; or, should such instructor believe the grade was correctly issued, the instructor will communicate this decision in writing to the student.

If the student’s dissatisfaction persists, a written request must be submitted within three (3) working days that the case be reviewed at an informal hearing involving the Vice President of Learning, the instructor who issued the grade, the Dean of the division involved, and the student who is making the appeal. The request should be directed to the Vice President of Learning. The review conference will be held within ten (10) working days thereafter. The Vice President of Learning and the Dean of the division will thereafter, and within three (3) working days, render a decision and notify the student and the President of such decision in writing. The President reserves the right to further review as deemed appropriate.

Credit by Examination (CBE)

The College provides a means to earn credit by examination for some courses. Students whose previous educational studies, training programs, or work experience may entitle them to an adjustment in the course requirements for a particular curriculum should contact the course professor to determine whether a course is available for CBE.

Credits earned through the examination method may or may not be transferable to other institutions. Students should determine transferability of credits earned through CBE with the institution to which transfer is planned.

Continuing Education Unit

The Continuing Education Unit (CEU) recognizes an individual’s participation in selected noncredit activities. One CEU is equivalent to ten contact hours of participation in a noncredit seminar or class that



meets specific criteria as set forth by the student's governing professional organization.

Satisfactory completion of noncredit activities awarding CEUs is based on some predetermined level of attendance or on a combination of attendance and performance. The College maintains a permanent record for each participant who successfully completes a program or activity.

Continuing Education Units and such academic credit units as semester or quarter hours are separate and distinct units of measure and may not be interchanged.

Academic Recognition

President's List

This recognition is given to students who achieve a GPA of 3.8 or above without "F" or "U" grades in any academic semester with 12 or more credits completed.

Dean's List

This recognition is given to students who achieve a GPA of 3.2 or above without "F" or "U" grades in any academic semester with 12 or more credits completed.

Graduation

The College holds a formal commencement ceremony each year. Students completing graduation requirements in the summer term may receive their diploma in August. Students who graduate at the end of the summer or fall terms are considered graduates of the class the following May. Applications for graduation and additional information are available from the Admissions and Records Office.

Graduation Requirements

The catalog in effect on the date a student is formally admitted to a curriculum/program is used to determine course and credit requirements for graduation. The new catalog for each academic year becomes effective on the first day of June. The College reserves the right to make changes in the curriculum requirements when necessary. Students are encouraged to keep up with changes to their curriculum as listed in new Catalogs. In cases where a student discontinues enrollment at the College for two consecutive semesters, (excluding summer), graduation requirements are determined by the Catalog in effect during the semester a student re-enrolls.

Graduation Honors

A student who has fulfilled the applicable program of study requirements is eligible for graduation honors. Appropriate honors based upon scholastic achievements are recorded on the student's permanent record as follows:

Cumulative Grade Point Average (GPA) Honor

- 3.2 Cum laude (with honor)
- 3.5 Magna cum laude (with high honor)
- 3.8 Summa cum laude (with highest honor)

Degrees and Certificates

The College offers the following degrees, diplomas or certificates for students who successfully complete approved programs at the College:

- The Associate in Arts and Sciences Degree (AA&S) is awarded to students majoring in the liberal arts and specialized curricula such as business administration, pre-teacher education, and other professional programs who plan to transfer

to a four-year college or university after completing their Lord Fairfax Community College program.

- The Associate in Applied Science Degree (AAS) is awarded to students majoring in one of the occupational-technical curricula who plan to seek full-time employment upon graduation from the College.
- The Certificate is awarded to students who complete one of the approved, non-degree curricula usually less than two years in length.

Associate Degree Requirements

To be eligible for graduation with an Associate Degree from the College, a student must:

1. Fulfill all course and credit-hour requirements of the degree curriculum with at least 25 percent of the credit semester hours acquired at the College;
2. Be certified by the appropriate College official for graduation;
3. Earn a grade point average of at least 2.0 in all applicable studies attempted toward graduation in his or her curriculum;
4. File an application for graduation in the Office of Admissions and Records;
5. Resolve all financial obligations to the College and return all library and College materials;
6. Take the exiting student profile test the semester before graduation.

Certificate Requirements

To be eligible for graduation with a Certificate from the College, a student must:

1. Fulfill all course and credit-hour requirements of the Certificate curriculum as specified in the

College Catalog with a minimum of 25 percent of the credits acquired at the College;

2. Be certified for graduation by the appropriate College official;
3. Earn a grade point average of at least 2.0 in all applicable courses attempted toward graduation in his or her curriculum;
4. File an application for graduation in the Office of Admissions and Records;
5. Resolve all financial obligations to the College and return all library and other College materials.

Transfer Credit Policy

Credit Awarded for Certain Vocational Courses or Competencies Earned in High School

College credit may be awarded for certain high school or vocational courses for competencies gained in high school. Students should check with their vocational high school instructors, the Vice President of Learning, College counselors, or the Admissions and Records Office for further details.

Transfer Credit for Military Experience

Lord Fairfax Community College awards credit for military experience/schooling. Those interested should contact the Admissions and Records Office.

Transfer Credit for Professional Legal Secretaries

Lord Fairfax Community College awards transfer credit to those who have successfully completed the Professional Legal Secretaries Examination (PLS), upon certification of completion of the exam. Those interested should contact the Admissions and Records Office.

Transfer Credit for Certified Professional Secretaries

Lord Fairfax Community College awards transfer credit to persons who have successfully completed the Certified Professional Secretaries Examination (CPS), upon certification of completion of the exam. Those interested should contact the Admissions and Records Office.



Special Academic Policies

Auditing a Course

Students desiring to attend a course without taking examinations or receiving credit for the course do so by registering to audit that course during the add/drop period. Students pay the regular tuition. Permission of the faculty member and appropriate Dean is required to audit a course.

Audited courses carry no credit and do not count as a part of the student's course load. Students desiring to change status in a course from audit to credit must do so by the last date to be eligible for a refund for the course. Changes from credit to audit must be made by the official last day for students to withdraw from a course without penalty.

Waiver of Requirements

Several programs allow the waiving of a course requirement under specific conditions. The credit requirement must be satisfied with other credits. Any student planning to take advantage of an allowable course waiver must meet the Catalog stated conditions. Students are advised to consult with a faculty advisor or counselor in selecting suitable alternative credits.

Transfer Between Curricula

As students proceed in their studies, they may decide to change their program or curriculum. Students are encouraged to make an appointment with a counselor or academic advisor for assistance.

Annual Notice: Family Educational Rights and Privacy Act

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights include:

1. The right to inspect and review the student's education records within 45 days of the day the College receives a request for access. Students should submit to the Admissions and Records Officer, or other appropriate official, written requests that identify the record(s) they wish to inspect. The College official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the College official to whom the request was submitted does not maintain the records, that official will advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student's education records that the student believes are inaccurate or misleading. Students may ask the College to amend a record they believe is inaccurate or misleading by writing the Admissions and Records Officer. Students need to clearly identify the part of the record requested to be changed and specify its inaccuracy or misrepresentation. If the College decides not to amend the record as requested by the student, it will notify the student and advise the student of the right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent. One exception, which permits disclosure without consent, is disclosure to school officials with legitimate educational interests.

A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

A school official is a person employed by the 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 the College has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the College to comply with the requirements of FERPA.

Student Directory Information

As provided for by FERPA, the College may disclose "directory information" relating to students as follows:

1. Name
2. Address
3. E-mail address
4. Telephone listing
5. Date and place of birth

6. Major field of study
7. Dates of attendance
8. Participation in officially recognized activities
9. Degrees and awards received
10. The most recent previous educational agency or institution attended.

Any student who objects to having any or all of the directory information disclosed without his/her written consent must notify the Admissions and Records Office in writing each semester by the first day of classes.

Student Education Records

The student's permanent official education record is kept in the Admissions and Records Office. To protect the student's right to confidentiality, the Admissions and Records Office exercises strict control over these records. The Admissions and Records Officer is responsible for education records and requests for information regarding them should be filed with this office.

Student Records Retention Policy

The permanent academic record is the only official document of a student's academic history and the only official document used for record reconciliation. All other student documents are subject to disposal by the College in accordance with Virginia Community College System policy.

Non-Discrimination Statement

Lord Fairfax Community College promotes equal opportunity in educational programs and activities, admission and employment without regard to race, color, sex or age except where sex or age is a bona fide occupational qualification, religion, handicap, national origin or other non-merit factors. Inquiries concerning the affirmative action policy should be addressed to Lord Fairfax Community College's Affirmative Action Officer or made by calling 540.868.7000.

Academic Honesty

The Lord Fairfax Community College experience depends on the absolute integrity of the work completed by each student. Students maintain a high standard of honor in their coursework. Academic honesty is essential to develop students' full intellectual potential and self-esteem. Academic dishonesty involves, but is not limited to, one of the following: giving or receiving, offering or soliciting unauthorized assistance on any exam or assignment; plagiarism; and collusion. Procedures in cases of academic dishonesty are outlined in the Lord Fairfax Community College Student Handbook.

Student Conduct—Discipline

Each college student is considered a responsible adult who maintains appropriate standards of conduct. Failure to meet standards of conduct acceptable to the College may result in disciplinary probation or dismissal, depending upon the nature of the offense.

All students are required to familiarize themselves with the College's Rules and Regulations as printed in the Student Handbook, and particularly with the "LFCC Code of Student Rights, Responsibilities and Conduct." The Student Handbook is available at www.lfcc.edu.

Disruptive Classroom Behavior

All students are expected to be in compliance with the College's "Code of Student Rights, Responsibilities and Conduct." This policy and procedure clarifies the portion defined as disruptive conduct.

Proscribed Conduct: Generally, institutional discipline is limited to conduct which adversely affects the institutional community's pursuit of its educational objectives. The following misconduct is subject to disciplinary action:

- A. All forms of dishonesty including cheating, plagiarism, knowingly furnishing false information to the institution, and forgery, alteration, or use of institutional documents or instruments, or identification with intent to defraud.
- B. Intentional disruption or obstructions of teaching, research, administration, disciplinary proceedings, or other College activities.
- C. Failure to comply with college policies and direction of officials acting in performance of their duties.
- D. Abusive language, fighting, obscene conduct, or public profanity.
- E. Possession of illegal or dangerous weapons (e.g., knives, guns).

Disciplinary Proceedings: Any academic or administrative official, faculty member, or student may file charges against any student for misconduct. In extraordinary circumstances, the student may be suspended pending consideration of the case. Such suspension will not exceed a reasonable time. Extensive information regarding reporting and disciplinary proceedings are included in the College's "Code of Students Rights, Responsibilities and Conduct."

Student Grievance Procedure

Any student dissatisfied with any aspect of the College should direct correspondence to the Vice President of Student Success, the Vice President of Learning, or the Vice President of Financial and Administrative Services. Students dissatisfied with a grade should follow procedures outlined in the Grade Appeal Policy located in the Lord Fairfax Community College Catalog. Concerns regarding discipline or sexual harassment should be reported as described in the College Catalog and Student Handbook. Both publications are available in the Office of Student Success.

Academic Apparel

All students participating in graduation exercises are required to obtain and wear appropriate academic apparel as determined by the College.

Other Administrative Information and Policies



Campus Bookstore

Textbook purchases will be fully refunded within 15 calendar days from the start of classes or within 2 days if purchased thereafter. During short, interim or summer terms, refunds will be given within 7 calendar days from the start of classes or within 2 days if purchased thereafter. Within these time periods, new textbooks are fully refundable when returned in the same condition as purchased. Any book purchased during the last week of classes or during exams is not fully refundable, but may be sold back at the end of the term during book buyback. The original receipt must accompany all returns.

All major credit cards are accepted. Personal checks need the following information: address, phone number, and ID or driver's license number.

Bulletin Boards and Official Notices

Bulletin boards are placed throughout the College and official notices are posted on them. Students are expected to read all posted official notices. Each student has an individual email address through the college, and the College will also use this email address to provide important and timely communications to students.

College Information

The Office of Student Success publishes a weekly information sheet. Any member of the College community may place an announcement in this information sheet by submitting it in writing to the Office of Student Success. All announcements must be signed and received by 4:00 p.m. on Thursday prior to publication. No telephone messages will be printed. If space is limited, preference will be given to announcements dealing with College matters. All announcements are subject to the approval of the Vice President of Student Success.

Campus Safety

Safety rules are established to protect the individual from injury or death and must be observed at all times. Posted speed limits, traffic patterns and fire access lane regulations are rigidly enforced.

Personal attention and care is required by all students for their own safety and the safety of others whether in the classroom, hall, laboratory, library, lounge, or parking area. Specific safety precautions and the exercise of common sense and courtesy are key elements of the College safety program.

Drug and Alcohol Policy

The unlawful possession, use, or distribution of illicit drugs and alcohol by students on school property (including buildings, grounds and parking facilities) violates the College's Substance Abuse Policy and the "LFCC Code of Student Rights, Responsibilities and Conduct." The sale or distribution of alcohol is not permitted at any Student Activity or College sponsored club/organization event.

The College is committed to uphold rules and regulations as stated in the "Substance Abuse Policy" and "Code of Student Rights, Responsibilities and Conduct." Depending on the severity of the violation of the code and the result of a disciplinary hearing, one or more of the following penalties can be imposed: admonition, warning probation, disciplinary probation, restitution, suspension, or expulsion.

Individuals who violate this policy may also be subject to legal sanctions under applicable County, Commonwealth of Virginia or federal law regarding the unlawful possession or distribution of illicit drugs and alcohol. Such sanctions may include fines and/or imprisonment.

A variety of community and state agencies provide the LFCC service area with special programs dealing with illicit drug and alcohol use. Any student seeking information regarding drug or alcohol counseling, treatment or rehabilitation programs should contact the Office of Student Success.

HIV/AIDS Policy

Lord Fairfax Community College strives to educate its constituency of HIV/AIDS awareness and prevention measures, the importance of eliminating behaviors associated with risk, coping strategies, and related issues. The comprehensive education program includes distribution of information regarding prevention and risk reduction and the development of the skills and support needed to change risk behaviors. LFCC makes available to all students, faculty and staff information about the transmission of HIV and the means of minimizing the risk of developing AIDS. Information is also available to members of the community.

In addition, LFCC ensures the protection of the individual rights of all members of the campus community, and the preparation of individuals to act in a responsible manner. Discrimination of persons who are HIV positive or who may have AIDS is not tolerated.

Members of the Lord Fairfax community who need assistance in dealing with HIV/AIDS issues are encouraged to seek the confidential services of the College’s Student Success staff and a variety of community agencies.

Eating, Drinking, Smoking, and Use of Tobacco Products

Eating and drinking are restricted to the student lounge and are not permitted in the halls or instructional areas. Use of alcoholic beverages, smoking and use of tobacco products are not permitted inside the College facilities. There are, however, sheltered smoking areas designated on both campuses.

Sexual Misconduct

Sexual harassment and sexual assault violate the policy of the State Board of Community Colleges. Procedures for reporting and resolving sexual misconduct complaints are listed in the College’s Student Handbook.

Sexual harassment is defined as unwelcome sexual advances, requests for sexual favors, or other verbal

or physical conduct or written communications of a sexual nature that are intimidating, hostile or offensive. Violation of this policy is considered to have occurred when:

- Accepting or tolerating such conduct is made a term or condition of a student’s status either explicitly or implicitly;
- Accepting or rejecting such conduct is used as the basis for academic or other decisions affecting the student; or
- The conduct creates an unwelcome intimidating, hostile or offensive environment that interferes with a student’s educational experience.

All students at Lord Fairfax Community College are covered by this policy.

Complaints of sexual harassment or sexual assault may be handled through established student grievance procedures or complaints may be discussed or filed in writing with the College’s Equal Employment Opportunity (EEO) Officer or the appropriate Vice President. More information about the College’s policy is in the Student Handbook. Student Success Counselors are available to help students with these complaints.

Emergency Information

Fire/Ambulance—Local Volunteer Fire and Rescue Company—911.

Weather—When severe weather or emergencies (snow, ice, power failure) exist or require reduced operations or closure, announcements are made by local radio and television stations, through telephone weather announcements and on the College’s web site www.lfcc.edu.

The College will notify the media; however, LFCC cannot control whether the announcement is broadcast. If a student is in doubt, contact the College’s Announcement Line: Middletown – 540.868.7230; Fauquier – 540.351.1505, or access the College’s web page for special weather information at www.lfcc.edu.

If it is not announced that the “College is closed” or that “classes are cancelled,” then it may be assumed that the College is open and classes are being held.

Classes held at off-site locations will follow the inclement weather provisions of the governing agency that owns the facility. For example, classes taught at a high school will follow the inclement weather decisions for that school.

educational support



Counseling & Advisement
Financial Assistance

Counseling and Advisement

The College offers a number of services and activities that complement academic programs to support the development of each student.

Counseling

As a service to students and the College community, the College maintains a staff of professional counselors who provide many special services to facilitate the academic development of students.

Counselors are available to assist students make informed decisions regarding their personal, vocational, or educational goals.

Academic Placement

Full-time and part-time students registering for classes requiring specific skill levels in writing, mathematics, or reading must take appropriate placement tests or the identified prerequisite college course. If placement test scores indicate a need for developmental education, this coursework must be satisfactorily completed before enrollment in the college level course.

A student who presents SAT scores of at least 500 verbal and 500 math, from testing within the last five years, is not required to take placement testing and may register for college level courses. SAT scores must be forwarded to the College's Learning Assistance Center (173 Skirmisher Lane, Middletown, VA 22645 or 6480 College Street, Warrenton, VA 20187) directly from the College Board.

Part-time students must have an academic assessment completed before registering for more than nine cumulative credits at Lord Fairfax Community College.

New Student Registration Workshops

New Student Registration Workshops acquaint new students with the purposes and programs of the College, registration and curriculum requirements, and College services and personnel. New students planning to register for a program of study should participate in a New Student Registration Workshop where they will be assigned an academic advisor, discuss future educational goals, and register for classes.

College Success Skills

Students are encouraged to enroll in the STD/SDV 100 (or equivalent) course within the first 12 credits of their program of study at the College. The course is designed to help students succeed in their coursework.

Students with Special Needs

The College supports the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. The College's policy is a commitment to provide reasonable accommodations to students who are physically handicapped or learning disabled as they seek educational or employment goals. Students clinically diagnosed with accommodations prescribed by a licensed professional are urged to make their special needs known. All such students identifying themselves to the College are served under the Section 504 program. To start the process of accommodation, students should see the Learning Assistance Coordinator, their academic advisor, any faculty member, or a counselor. The earlier students initiate the process by notifying the College of special needs, the sooner accommodations can be developed to provide equal opportunities for achieving success in educational goals.

TRIO Student Support Services Program

TRIO provides academic and personal support services to eligible students to assist them in successfully completing their programs of study and achieving their personal and career goals. The Program offers a wide variety of services and activities – including advising, counseling, tutoring, mentoring, transfer assistance, and social/cultural activities – designed to meet the individual needs of each student. Students may qualify by demonstrating an academic need and by meeting one or more of the following criteria:

First Generation Students: Neither of the student's parents graduated from college with a bachelor's degree;

Low Income Students: Students who are eligible to receive financial aid or meet federal low-income guidelines;

Students with Disabilities: Any student with a physical, emotional, or learning disability who requires academic assistance.

Contact the TRIO Program office for further information.

Financial Assistance

Lord Fairfax Community College is committed to using all available funds to help students gain access to a college education. Financial aid is usually awarded based on financial need, but can be awarded based on merit or a combination of factors. Assistance is available through a variety of federal, state and institutional programs. Lord Fairfax Community College promotes equal educational

opportunity without regard to race, color, sex, age, religion, national origin, or other non-merit factors. For a complete list of financial aid currently available, check online at www.lfcc.edu.

Need-Based Programs of Assistance

Pell Grant

The Pell Grant is an entitlement program based on financial need. It is the foundation of all assistance programs and all students are encouraged to apply.

Federal Supplemental Educational Opportunity Grant (FSEOG)

The FSEOG is an entitlement program awarded to Pell eligible students based on federal guidelines. Funds for FSEOG are limited and awarded on an annual basis.

Federal Work-Study (FWS)

This program provides part-time employment for students demonstrating financial need and minimum enrollment (6 credits). Student class schedules, curriculum, and job skills are considered in assigning jobs.

College Scholarship Assistance Program (CSAP)

This entitlement program, administered by the State Council of Higher Education of Virginia, is reserved for Virginia residents. Preference is given to full-time students with the greatest need. Funds are limited and awarded annually with a priority deadline of May 1.

Commonwealth Award (COMA)

State-funded program for legal residents of Virginia in need of financial assistance. This grant assists students who are enrolled in six or more credit hours with tuition and fees. Funds are limited and awarded on an annual basis with a priority deadline of May 1.

Virginia Guaranteed Assistance Program (VGAP)

Full-time Virginia domiciled dependent students who graduated from a Virginia high school with at least a 2.5 grade point average may apply for this state grant program. Students must be first-time freshman and may qualify for renewal awards up to three additional years. VGAP provides financial assistance for tuition and books.

Part-time Tuition Assistance Program (PTAP)

State tuition grant for Virginia residents who enroll for 3-5 credits. Funding is limited and awarded early each year.

Lord Fairfax Community College Local Board Scholarship Program

Scholarships are sufficient to cover full-time tuition for one academic year.

Principal's Scholarships

One scholarship is named in honor of the principal at each high school. This scholarship recognizes high academic achievers who will attend LFCC. Each high school selects the recipient.

College Board Scholarships

One scholarship per high school is awarded in honor of the Local College Board. This scholarship is competitive based on academic achievement, leadership as demonstrated through extra-curricular activities, and citizenship.

Tech Prep Consortium Scholarships

One scholarship per service area jurisdiction is awarded to recognize exemplary high school students enrolled in Tech Prep Programs. The award is for full-tuition for one academic year at LFCC.

Cultural Diversity Scholarships

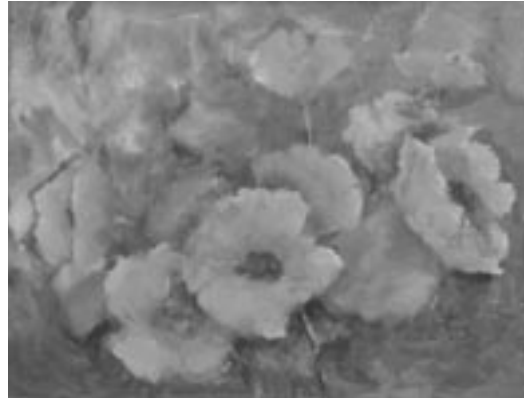
Four scholarships that consider race or national origin a plus factor in order to assist in assembling a student body with a variety of opinions, backgrounds, cultures, and experiences.

Lord Fairfax Community College Educational Foundation, Inc. Scholarships

Scholarships are awarded on the basis of need and/or merit, as determined by the donor.

- The Automotive Industries, Inc. Scholarship is awarded annually to a student enrolling full- or part-time at LFCC.
- Marilyn C. Beck Scholarship was endowed through the Lord Fairfax Community College Educational Foundation and College Board in honor of Dr. Beck's exemplary service to the college during her 15 years as President. The applicant must be a full-time LFCC student and demonstrate the need for financial aid.
- James L. Bowman Business Scholarship endowed by Beverly Shoemaker in memory of her father. The applicant must be a full-time student at LFCC, demonstrate a need for financial assistance, and be enrolled in the Business Administration program.
- The Mary Jane Bowman Nursing Scholarship is awarded annually to a full-time student from Frederick County or the City of Winchester enrolled in the College's nursing program. Selection is based on academic potential and financial need.
- The William E. Bridgeforth, Jr. Family Scholarship is awarded annually to a full-time LFCC student. The scholarship was established in honor and memory of William E. Bridgeforth, Jr. by his family and friends.

- The C.A. and Helen Powers Brill Scholarship is awarded to a full- or part-time LFCC student. First preference is given to participants of the Dental Hygiene Program.
- Awarded annually, the James G. Brumfield Scholarship was established in his memory and honor. Mr. Brumfield served on the Board of Supervisors of Fauquier County and was a faithful supporter of the growth and development of the Fauquier Campus.
- The Teresa Evans Callahan Scholarship was established in honor of Teresa Evans Callahan by her husband, a professor at LFCC. Applicant must be a single parent and demonstrate financial need. Preference is given to a student enrolled in an IT Program at LFCC.
- The Clarke County Educational Fund Scholarship is awarded annually to a Clarke County resident enrolling full-time at LFCC.
- The Felicia and Myles Cogan Scholarship was established in memory of Dr. Myles and Mrs. Felicia Cogan, a former professor of English at LFCC, by family and friends. The applicant must be enrolled in English 111-112, possess excellent writing skills, and submit a sample of writing to the English Department.
- The Command Technologies Scholarship was created by Mr. Donald E. Rose, President and CEO of Command Technologies in Warrenton, Virginia. This scholarship benefits Fauquier and Rappahannock County residents attending LFCC at the Fauquier Campus.
- "Dollars for Scholars" Scholarship Fund awards are given to students residing in Rappahannock and Fauquier Counties who enroll as full-time students at the Fauquier Campus.
- The Maurice J. Duffey Business Administration Scholarship is available for a full- or part-time student enrolling in the College's Business Administration degree program or a business related field.
- The Fauquier Business and Professional Women's Club Scholarship provides assistance to women re-entering the work force; expanding their employment skills for higher paying jobs; or, planning to pursue a non-traditional career. First preference is given to women residents of Fauquier County.
- The First Bank Scholarship was established by First Bank of Strasburg to provide financial assis-



By Dolores Sekel, former college patron

- tance for full-time students who wish to attend LFCC.
- The Fisher Diagnostics Scholarship is awarded annually to a student enrolled full- or part-time at LFCC. Preference is given to employees of Fisher Diagnostics and their dependents.
- The Front Royal BPW Scholarship, established by the Front Royal Business and Professional Women, is awarded to a Warren County High School female student upon graduation.
- The Katherine Carter Fussell Scholarship, established in 1998, is awarded annually to a Warren County student who demonstrates financial need.
- Global Stone Chemstone Corporation Scholarships are available for full-time students who indicate a need for financial assistance, are residents of Frederick or Shenandoah Counties and desire to reside and work in the Northern Shenandoah Valley. Preference is given to Chemstone employees and their dependents.
- The Mills E. Godwin, Jr. Scholarship is awarded annually to a full-time LFCC student demonstrating a need for financial assistance.
- The John P. Good, Jr. Scholarship was established to provide financial assistance for LFCC students.
- The Health Occupation Students of America (HOSA) Scholarship for Practical Nursing/RN Transition was established by HOSA in 2000. To be eligible, the student must be enrolled in the Nursing program and have a desire to continue his/her education toward an ADN degree.
- The Mary M. Henkel Scholarship was endowed in 1994 to assist students in achieving their educational goals. Mrs. Henkel was a member of the LFCC Educational Foundation Board until her death in November 2001.

- The Wilkie W. Hunt Memorial Scholarship is awarded annually to a full or part-time student at the College.
- The Kumli Family Scholarship is awarded annually to a student enrolling at LFCC. Applicants from Rappahannock County are given first preference for this award.
- The Joan Kushnir GED Scholarship Fund was established by family and friends in memory of Joan E. Kushnir. To be eligible, the applicant must be a GED graduate entering LFCC.
- The Ladies of Harley-Winchester Virginia Chapter Scholarship was established to assist students in continuing their education at Lord Fairfax Community College.
- The Learning Tree Scholarship is available for a student enrolled at the College pursuing a career in real estate.
- The Jesse and Rose Loeb Scholarship is available for a full-time student who is a resident of Fauquier County.
- The Luray Caverns Scholarship is awarded annually to a graduating senior from Luray High School.
- The McKinley Chapter #19 Order of the Eastern Star Scholarship is awarded to a graduating high school senior enrolled full-time at the Middletown Campus of LFCC intending to transfer to a four-year institution after completing two years of academic studies at LFCC.
- The Tim Melton Memorial Scholarship is available for a full-time LFCC student in a science curriculum. Applicants must commit to a Northern Shenandoah Valley Audubon Society (NSVAS) activity.
- The Dorothy C. Moseley Scholarship was established by Carolyn Majors, an employee of LFCC, to honor the memory of her mother. The annual scholarship is awarded to a graduating senior of Warren County High School, enrolled at Lord Fairfax Community College, and pursuing a career in education, human services or health/allied care.
- The National Fruit Product Company Scholarship is awarded annually to a full- or part-time student. Preference is given to employees of the National Fruit Product Company and their dependents.
- The Page County Scholarship Fund was endowed by a resident of Page County. This scholarship benefits full-time students residing in Page County.
- The Paul J. Paige, Sr. Memorial Scholarship is awarded annually to a student enrolled full- or part-time at the College.
- The Perry-Judd's, Inc. Scholarship is awarded annually to a full- or part-time student at the College. First preference is given to a child of a Judd's employee.
- The Irene Renee Deoudes Piper Memorial Scholarship was established in honor and loving memory of Irene Renee Deoudes Piper. The scholarship is awarded annually to a full- or part-time LFCC student.
- The Marion Poynter Scholarship is awarded annually to a full-time student enrolled at the College who resides in Rappahannock or Fauquier Counties.
- The William B. Remington Scholarship award provides financial assistance to full-time students who continue their education at LFCC.
- The San Antonio Area Foundation Scholarship is given to a student currently working with, or planning to work with, autistic children and their families.
- The Saul Robinson Scholarship is awarded annually to a full- or part-time student who is in need of financial assistance. First preference is for residents of Page County.
- The Alson H. and Margarete Smith Scholarship is awarded annually to a student enrolling full-time in banking, finance or business two-year degree programs who intends to transfer to Shenandoah University after graduation.
- The David M. Smith Memorial Scholarship is awarded annually to a full- or part-time student at the College. Preference is given to first generation College students.
- The Gerald F. Smith Scholarship is awarded annually to two students enrolling full- or part-time at LFCC.
- The Southern Fauquier Business Owners Association Scholarship provides assistance to a resident of Fauquier County who resides in the Lee or Cedar Run Districts.
- The Bob G. Sowder Scholarship is awarded annually to a full-time student enrolled at LFCC from Fauquier County.
- The Rance Lee Spellman (1946–1982) Memorial Award Scholarship is awarded annually to a student who demonstrates financial need, possesses

a commitment to learning skills necessary to farming, and is enrolled full- or part-time in the College's Agriculture, Horticulture, Environmental Science, or Natural Resources program.

- The Sergeant Ricky Timbrook Memorial Scholarship was established in 1999 and is awarded annually to assist any active or retired law enforcement officer to continue their education at LFCC.
- The Tire Distributors, Inc. Scholarship is awarded annually to a student enrolling full- or part-time at the College.
- The Valley Masonic Scholarship Fund is awarded to a student deemed eligible for financial aid, enrolled in a curriculum leading to an Associates Degree in at least one of the following courses: physics, chemistry, mathematics, biology, microbiology, or ethics.
- The Warren County Endowed Scholarship is awarded annually to a Warren County resident enrolled full- or part-time at LFCC.
- The Alfred and Dottie Whitt Scholarship is available for a student possessing academic potential and financial need who is a resident of the Henry and William Evans Children's Home.
- The Winchester Area Society for Human Resource Management Scholarship is available for a full-time student wishing to pursue a career in Human Resource Management.
- The Winchester Exchange Club Scholarship is awarded annually to a student from Frederick County or the City of Winchester enrolling at LFCC.
- The Winchester Frederick County Rotary Scholarship was endowed to promote higher education in the community. The applicant must be a full- or part-time student; a resident of Frederick/Clarke Counties, or the City of Winchester, and show academic potential and financial need. Children of Rotarians are not eligible for this scholarship.
- The Winchester Medical Center Scholarship was established to enhance the educational opportunities of residents in the College's service region, either as a full- or part-time student.
- The Paul Wolk Scholarship is awarded annually to a student enrolling full-time at the College. Preference is given to a resident of Fauquier County.

- The Alexander Yurgaitis Family Scholarship is awarded annually to students enrolled full-time at the College as residents of Fauquier or Rappahannock Counties.

Information and applications are available from the Educational Foundation Office or the Financial Aid Programs Office.

How To Apply For Financial Assistance

Students may apply for aid by completing the "Free Application for Federal Student Aid" (FAFSA) form. This form can be mailed and takes four to six weeks to process. Electronically submitted, the application takes two to four weeks to process. The web address for electronic filing is: <http://www.fafsa.ed.gov>. The student and the student's listed colleges receive a Student Aid Report (SAR) from the Central Processing Service. No determination of eligibility can be made until the College receives a valid SAR. Applicants may be required to provide additional information. Applications should be submitted as soon as possible after January 1 of each year. The priority application deadline is May 1. Applications and information concerning financial assistance at Lord Fairfax Community College is available in the Financial Aid Office.

Satisfactory Academic Progress for Financial Aid Recipients

Students who apply for, and are eligible to receive financial assistance from federal and state programs, must make satisfactory academic progress determined by the enrollment status, credit hours completed, and cumulative grade point average. Students receiving financial assistance who fail to meet these institutional academic standards will have all aid terminated until the standards are achieved. Complete information is available in the Financial Aid Office and the College's website at www.lfcc.edu.

Return of Title IV Funds (PELL, FSEOG)

All students receiving federal financial aid (Pell, FSEOG) will be required to repay all or part of any aid received to the appropriate federal program if they withdraw from all classes before the 60% time period each semester. Complete information is available in the Financial Aid Office and the College's website at www.lfcc.edu.

Veterans Educational Benefits

Veterans who have served in the military or children, wives, and widows of veterans may be eligible for educational assistance through the Veterans Administration (VA). For information concerning the VA and Educational Assistance, contact the Admissions and Records Office.

Virginia War Orphans Education Program (VWO)

The VWO provides educational assistance for children, or surviving children, of certain veterans. To be eligible for assistance under this program, an applicant must meet the following basic eligibility requirements:

- One of the applicant's parents must have served in the armed forces of the United States; and must be permanently and totally disabled due to war or other armed conflict; or must have died as a result of war or other armed conflict; or must be listed as a prisoner of war (POW) or missing in action (MIA).
- The applicant's parent, on which eligibility is based, must have been a resident of the Commonwealth of Virginia at the time of entry into active military service; or must have been a resident of the Commonwealth of Virginia for at least ten (10) consecutive years immediately prior to the date of application or death; or the surviving parent must have been a citizen of Virginia for at least ten (10) years prior to marrying the deceased parent, and must have been a citizen of Virginia for at least (10) consecutive years immediately prior to the date on which application was submitted by or on behalf of such child for admission to any educational or training institution in this Commonwealth.
- The applicant must be no less than sixteen (16) years of age, and no more than twenty-five (25) years of age.
- The applicant must use this entitlement to attend either a state supported secondary or post-secondary educational institution.

- Eligible individuals are entitled to a maximum of forty-eight (48) months of tuition-free education and required fees at any state supported secondary or post-secondary educational institution.
- Individuals entitled to this benefit may use it to pursue any vocational, technical, undergraduate or graduate program of instruction. Generally, programs listed in the academic catalogs of institutions are acceptable, provided they have a clearly defined educational objective (e.g., certificate, diploma, or degree).



National "Pandamonium" competition piece by faculty member Ann Currie and student Chad Lewis

instructional program information



- General Education
- The Honors Program
- Developmental Studies
- Cooperative Education
- Tech Prep
- Distance Education
- Workforce Services & Continuing Education
- Old Dominion University

General Education

General Education encompasses the common knowledge, skills and attitudes required by each individual to be effective as a person, worker, consumer and citizen. Students in occupational/technical programs and in transfer curricula strive to achieve with the help of the College the following:

Communication Skills

- Writes and speaks in organized, clear, and grammatically correct English.
- Listens and reads analytically, understanding and interpreting written and oral English.

Critical and Creative Thinking

- Uses the library and other information resources to accomplish objectives.
- Demonstrates a system of thinking, decision making and problem solving which evaluates the accuracy of statements, assesses the reasoning process and appraises the evidence offered in support of arguments, utilizing scientific methods to formulate and test hypotheses, when appropriate.
- Exhibits creativity in modes of thoughts and in aesthetic and affective expression.

Interpersonal Skills and Human Relations

- Demonstrates confidence and consideration when interacting with others.
- Demonstrates understanding of basic ethical issues through mature and professional behavior and values their application in the workplace.

Computational and Computer Skills

- Reads, interprets and analyzes graphs, tables and other data.
- Performs basic mathematics operations, including practical applications and fundamental probability and statistics.
- Demonstrates a fundamental knowledge of computer functions, elements and common applications.

Understanding Culture and Society

- Recognizes individual and cultural differences related to persons, nations and institutions, and recognizes contributions each has made/can make to developing and enriching civilization.
- Understands interactions between individuals and social institutions and demonstrates understanding of these interactions' effects on future civilization.

Understanding Science and Technology

- Understands fundamental principles and methods of science and technology, including their application to practical situations.
- Understands the effects of science and technology on human experience, including attitudes and values which impact the environment.

Wellness

- Demonstrates an awareness of the importance of a healthy body and mind, including attitude, skills and knowledge necessary for coping with stress and maintaining a healthy, satisfying life.

Holistic View of Education

- Understands the relationships among the liberal arts, natural and social sciences, and technologies and their importance in improving the quality of life.

The Honors Program

The Lord Fairfax Community College Honors Program is designed to challenge and reward students who are intellectually motivated and academically able through opportunities for in-depth study and interaction with like-minded students. A student may obtain honors credit by earning credit in an honors section, by fulfilling the honors component in a regular course as specified by the course professor, or by completing a special one-credit honors seminar. A grade of A or B is required in a course or seminar in order to earn honors credit. Faculty recommendation or approval is required for enrollment in an honors seminar.

Honors credit is noted on the student's transcript for each course or seminar in which it is earned. A graduating student with a grade point average (GPA) of 3.2 or higher, who has earned honors credit in at least three courses plus one honors seminar (a minimum of ten honor credits) receives the title "Honors Program Scholar" which is designated on the transcript and diploma.

Developmental Studies

Developmental and Remedial Studies courses are offered to meet these needs:

1. To prepare individuals for admission to occupational/technical and university parallel college transfer programs in the community college.
2. To assist students already pursuing course work who are experiencing difficulties or want to improve their efficiency.

3. To provide an opportunity for individuals interested in improving their skills in particular areas but are not necessarily enrolled in a program.

Students can enroll in courses to meet these three types of needs both during the regular school year and during the summer term.

Cooperative Education

Subject to availability, the Cooperative Education program provides interested, qualified students with supervised work experience related to their course of study. The criteria for acceptance are: at least a 2.0 academic average, formal acceptance in a program of study, and the completion of 15 credit hours (or approval by the Director).

During the semester in which students participate, they are employed on a job providing real and substantial training. Students interested in Cooperative Education may contact the Office of Workforce Services and Continuing Education for further information.

Tech Prep

Lord Fairfax Community College has worked intensively with public schools and business/industry partners to develop programs of study that lead stu-

dents to high-paying/high-skill careers. These programs have been developed with particular attention to careers expected to grow in this region.

Tech Prep students may be eligible to earn credit for course work completed in high school under existing articulation agreements. (See section on Special Admissions: Recognition of Prior Learning.) Students are encouraged to work with their advisors to avoid duplication of course work completed in high school. Tech Prep career clusters are developed with transfer options in mind. Tech Prep opportunities are a concentration available in the following career areas:

- Administrative Support Technology
- Administrative Support Technology/Administrative Assistant
- Administrative Support Technology/Desktop Publishing
- General Engineering/Mechanical Engineering Technology
- General Engineering/Civil Engineering Technology
- General Engineering/Computer-Aided Drafting
- Information Technology/Network Engineer
- Telecommunication/CISCO Technologies

Distance Education

Lord Fairfax Community College offers various forms of distance education course work. The delivery of distance education courses has been designed to meet the College's mission statement and long-range goals as well as goals and purposes identified by the Virginia Community College System.

Specifically, the College strives to:

1. Assure and extend access to all students to educational programs presented in a variety of instructional modes and
2. Extend equitable student access to quality programs and courses.

With these goals in mind, the College offers a variety of distance education opportunities including interactive video network, interactive compressed video network, correspondence and web-based courses. Lord Fairfax Community College shares an interactive compressed video network with other institutions in the Virginia Community College System. These credit courses are both originated and received from other locations at the Middletown or Fauquier Campuses.





Students can review the College course schedule to determine which courses are available each semester through the distance learning formats. LFCC offers numerous courses in a web-based learning format. With access to the World Wide Web and e-mail, students complete course work while working around personal and professional schedules. Support services and interactive opportunities with faculty members and other students are provided through technology to enhance overall student success.

Workforce Services and Continuing Education Division

Lord Fairfax Community College's Division of Workforce Services and Continuing Education assists new business and entrepreneurs and addresses their training and educational needs. Customized and technical training, apprenticeship related instruction, Work Keys profiles and assessments, on-site computer training via the mobile computer classroom, computer-based training (CBT), small business assistance, and pre-employment assessment are some of the many services provided. The Coordinators of Business and Industry Training, Small Business Development Centers, and Work-Based Learning, the Dean of Workforce Services and Continuing Education, and the Deans of Learning and Student Success work together to serve business and industry.

Old Dominion University – TELETECHNET

Lord Fairfax Community College Middletown and Fauquier Campuses serve as hosts for Old Dominion University's TELETECHNET program. The TELETECHNET program is an interactive distance education program. The TELETECHNET program enables students throughout Virginia to earn undergraduate and master's degrees from a fully accredited university without leaving their areas of residence.

TELETECHNET students complete their first two years of college through the host site, Lord Fairfax Community College, and then transfer to Old Dominion University to complete the remaining course work required of a bachelor's degree. Courses are broadcast live from the main campus of Old Dominion University and are received through satellite technology at Lord Fairfax Community College campuses. Students interested in taking TELETECHNET courses may consult with the Old Dominion University Site Directors at the Middletown and Fauquier Campuses.

instructional programs



Approved Electives

Core Computer Competency Requirements

Classification of Programs

Instructional Programs

Students planning to transfer to a four-year institution may select Humanities or Social Science electives from any of the following lists of courses. Transfer students should determine which of the following courses the transfer institution will accept. (Some courses may require prerequisites.)

Approved Electives

Approved Humanities Transfer Electives

ART 100	Art Appreciation
ART 101-102	History and Appreciation of Art I and II
ART 111-112	Introduction to the Arts I and II
ART 283-284	Computer Graphics I and II
ENG 241-242	Survey of American Literature I and II
ENG 243-244	Survey of English Literature I and II
ENG 251-252	Survey of World Literature I and II
ENG 255	Major Writers in World Literature
ENG 295	Studies in American Literature
FRE 101-102	Beginning French I and II
FRE 201-202	Intermediate French I and II
GER 101-102	Beginning German I and II
GER 201-202	Intermediate German I and II
HUM	All courses with this prefix
HIS 295	Studies in United States History
ITA	All courses with this prefix
MUS 121-122	Music Appreciation I and II
PHI	All courses with this prefix
REL	All courses with this prefix
SPA 101-102	Beginning Spanish I and II
SPA 201-202	Intermediate Spanish I and II

Students not planning to transfer to a four-year college or university may select Humanities electives from the list above or from the list below:

ART	All courses with this prefix
ENG	All courses with this prefix
MUS	All courses with this prefix
PHT	All courses with this prefix
SPD 100/110	Principles of Public Speaking (Unless otherwise required)
SPD	All other courses with this prefix

Approved Social Science Transfer Electives

ECO 120	Survey of Economics
ECO 201-202	Principles of Economics I and II
GEO 210	People and the Land: An Introduction to Cultural Geography
GEO 221-222	Regions of the World I and II
HIS 111-112	History of World Civilization I and II
HIS 121-122	United States History I and II
PLS 211-212	United States Government I and II
PSY	All courses with this prefix
SOC	All courses with this prefix

Courses Requiring Reading Prerequisites

The courses listed below all require a reading level prerequisite. Students' placement test scores may indicate the need to satisfactorily complete developmental reading instruction before enrolling in these courses.

ART 101-102	
ART 211-212	
BIO 101, 102, 141, 142, 150	
CHM	All courses with this prefix
CSC 201, 202, 205, 206	
ECO	All courses with this prefix
ENG 111, 115	
FIN 215	
GOL 105, 106	
HIS	All courses with this prefix
HUM	All courses with this prefix
ITD	All courses with this prefix
ITE	All courses with this prefix
ITN	All courses with this prefix
ITP	All courses with this prefix
PHI	All courses with this prefix
PHY	All courses with this prefix
PLS	All courses with this prefix
PSY	All courses with this prefix
REL	All courses with this prefix
SOC	All courses with this prefix

Core Computer Competency Requirements

Overview

A minimum level of proficiency in the use of computers and various software applications is essential in today's technological world. Therefore, the Virginia Community College System (VCCS) requires that all students demonstrate proficiency in specific core computer competencies. Each VCCS college must provide "...means by which students may acquire basic competencies in the use of computers." For these reasons, Lord Fairfax Community College requires each degree-seeking student to demonstrate proficiency in using a Windows-based operating system, along with components of an integrated productivity software package, including word processing, spreadsheet, database, presentation and/or communication applications.

Requirements

The majority of the College's Associate Degrees require that students complete a computer course such as CSC 155 (Computer Concepts and Applications), ITE 115 (Basic Computer Literacy), or equivalent. In lieu of completing a basic computer proficiency course, students may demonstrate proficiency in the core computer competencies. Students who successfully demonstrate proficiency in using a Windows-based operating system along with word processing, spreadsheet, database, presentation, and communications applications may then select an

appropriate elective to complete the required credit hours for their degree.

Computer Competency Testing

The College provides a set of computer competency exams in its Testing Center. Students wishing to demonstrate proficiency in the required core computer competencies may take these exams. In order to demonstrate proficiency, a student must pass (with a 60% or better) six separate exams. The six exams are set up to test the following:

- Computer Management (use of a Windows-based operating system to manage computer settings and files)
- Internet/Web Sites (ability to access information using a Web browser)
- Word Processing
- Electronic Spreadsheets
- Database Management Software
- Presentation Graphics

(Note: A detailed list of the skills tested is available in the College's Testing Center.)

It is recommended that the student allocate a minimum of 2.5 hours to complete the exams. To schedule an appointment to take the exams, visit the Testing Center's home page at <http://www.lfcc.edu/testingCenter/>.

General Education:

Minimum Number of Semester Hour Credits

	AA	AS	AA&S	AAA/AAS
I. English Composition	6	6	6	3
II. Humanities / Fine Arts	6	6	6	3
Foreign Language (Intermediate Level)	6	0	0	0
III. Social / Behavioral Sciences	12	9 ^(b)	12	6 ^(a)
IV. Natural Sciences /	8	8	8	0-3 ^(a)
Mathematics	6	6 ^(c)	6 ^(c)	0-3 ^(a)
V. Wellness	2 ^(d)	2 ^(d)	2 ^(d)	2 ^(d)
Other Requirements for Associate Degrees:				
VI. Student Development	1	1	1	1
VII. Major field courses and electives (columns 1-3)				
Occupational/technical courses (column 4)	13	22	19	47 ^(a)
Minimum Total for Degree =	60-63	60-63	60-63	65-69

Notes: The VCCS Policy Manual, Section 2-IV-C, defines general education within the VCCS. Accreditation eligibility criteria of the Southern Association of Colleges and Schools (SACS) specify general education requirements and provide additional guidance regarding reading, writing, oral communication, and fundamental mathematical skills. Within the framework of Table 5-1 above, Section 2-IV-C, Section 5.2.0.1, and SACS criteria, colleges must provide "... means by which students may acquire basic competencies in the use of computers." In addition to meeting the semester hour requirements listed above, each college must develop goal statements which include the eight elements found in the General Education statement in Section 2-IV-C of the VCCS Policy Manual.

- ^(a) While general education courses other than those designed for transfer may be used to meet portions of these requirements, SACS criteria require that general education courses be general in nature and not "... narrowly focused on those skills, techniques, and procedures peculiar to a particular occupation or profession."
- ^(b) Only 6 semester hours of social/behavioral sciences are required for engineering majors who plan to transfer to a baccalaureate degree engineering program that requires 6 or fewer hours in this category, provided that the college/university publishes such requirements in its transfer guide.
- ^(c) Only 3 semester hours of mathematics are required for the General Studies major.
- ^(d) Health, physical education, or recreation courses which promote physical and emotional well being.
- ^(e) AAA/AAS degree students should plan to take at least 30 hours in the major; the remaining hours will be appropriate to the major.
- ^(f) Credit range for programs in the Health Technologies - 65-72 semester hour credits; for nursing the credit range is 65-69 semester hour credits.
- ^(g) All college-level course prerequisites must be included in the total credits required for each program.

Classification of Programs

Programs offered by the College may be classified both by their purpose and by the degree or certificate to which they lead. College-parallel transfer programs lead to an Associate in Arts and Sciences (AA&S) degree. They are intended to prepare students for transfer to four-year baccalaureate programs.

Occupational-technical programs, intended to prepare students for specific occupations, lead to an Associate in Applied Science (AAS) degree, a Certificate (C), or a Career Studies Certificate (CSC). Whether students go to work following the completion of these programs, additional education or training is always an option.

The College reserves the right to withdraw program offerings if there is not sufficient demand or for other appropriate reasons.

Here are the programs of study offered at Lord Fairfax Community College:

College Transfer Two-Year Degree Programs, *pg. 53*

- Associate in Arts and Sciences Degree in Business Administration, *pg. 55*
- Associate in Arts and Sciences Degree in Education, *pg. 56*
- Associate in Arts and Sciences Degree in General Studies, *pg. 57*
- Associate in Arts and Sciences Degree in Liberal Arts, *pg. 58*
- Associate in Arts and Sciences Degree in Liberal Arts: Communications Specialization, *pg. 59*
- Associate in Arts and Sciences Degree in Liberal Arts: Fine Arts Specialization, *pg. 60*
- Associate in Arts and Sciences Degree in Liberal Arts: Philosophy and Religion Specialization, *pg. 61*
- Associate in Arts and Sciences Degree in Science, *pg. 62*

Business Subject Area Degrees and Certificates, *pg. 63*

- Associate in Arts and Sciences Degree in Business Administration, *pg. 65*
- Associate in Applied Science Degree in Accounting, *pg. 66*
- Associate in Applied Science Degree in Management, *pg. 67*

Associate in Applied Science Degree in Management, Business Information Technology Specialization, *pg. 68*

Associate in Applied Science Degree in Management, Marketing Specialization, *pg. 69*

Certificate in Electronic Commerce, *pg. 70*

Certificate in Technical Writing, *pg. 71*

Career Studies Certificate, General Business, *pg. 72*

Career Studies Certificate, Real Estate Sales, *pg. 72*

Career Studies Certificate, Sales Management and Marketing, *pg. 72*

Career Studies Certificate, Small Business Management, *pg. 72*

Career Studies Certificate, Supervision, *pg. 72*

Information Systems Technology Subject Area Degrees and Certificates, *pg. 73*

Associate in Applied Science Degree in Information Systems Technology/Programming/Systems Analysis, *pg. 75*

Associate in Applied Science Degree in Information Systems Technology/Programming/Systems Analysis, End-User Support Specialization, *pg. 76*

Associate in Applied Science Degree in Information Systems Technology/Programming/Systems Analysis, Network Engineer Specialization, *pg. 77*

Career Studies Certificate, Computer Technology, *pg. 78*

Career Studies Certificate, Geographic Information Systems, *pg. 78*

Career Studies Certificate, Information/Network Security, *pg. 78*

Career Studies Certificate, Internetworking Engineer, *pg. 78*

Career Studies Certificate, Network Specialist, *pg. 78*

Career Studies Certificate, Web Publishing, *pg. 78*

Engineering, Construction, and Industrial Degrees and Certificates, *pg. 79*

Engineering, Engineering Transfer Program, *pg. 81*

Associate in Applied Science Degree in General Engineering Technology, Mechanical Engineering Technology, *pg. 82*

Associate in Applied Science Degree in General Engineering Technology, Civil Engineering Technology Specialization, *pg. 83*

Associate in Applied Science Degree in General Engineering Technology, Computer-Aided Drafting Specialization, *pg. 84*

Associate in Applied Science Degree in General Engineering Technology, Industrial Electricity and Controls Technology Specialization, *pg. 85*

Career Studies Certificate, Construction Technology, *pg. 86*

Career Studies Certificate, Drafting, *pg. 86*

Career Studies Certificate, Electrical Technician, *pg. 86*

Career Studies Certificate, HVAC, *pg. 86*

Career Studies Certificate, Industrial Design, *pg. 86*

Career Studies Certificate, Industrial Maintenance Mechanic, *pg. 86*

Administrative Support Technology Degrees and Certificates, *pg. 87*

Associate in Applied Science Degree in Administrative Support Technology, *pg. 89*

Associate in Applied Science Degree in Administrative Support Technology, Administrative Assistant Specialization, *pg. 90*

Associate in Applied Science Degree in Administrative Support Technology, Desktop Publishing Specialization, *pg. 91*

Certificate in Graphic Design Office Assistant, *pg. 92*

Certificate in Legal Assistant/Paralegal Studies, *pg. 93*

Certificate in Medical Billing/Coding, *pg. 94*

Certificate in Medical Secretary/Transcription, *pg. 95*

Certificate in Office Systems Assistant, *pg. 96*

Career Studies Certificate, Desktop Publishing Technician, *pg. 97*

Career Studies Certificate, Information Processing Technician, *pg. 97*

Health Professions Degrees and Certificates, *pg. 99*

Associate in Applied Science Degree in Nursing, *pp. 101-102*

Associate in Applied Science Degree in Dental Hygiene (VWCC), *pp. 103-105*

Certificate in Medical Billing/Coding, *pg. 106*

Certificate in Medical Secretary/Transcription, *pg. 107*

Certificate in Practical Nursing, *pp. 108-109*

Certificate in Surgical Technology (PVCC), *pp. 110-111*

Career Studies Certificate, Emergency Medical Technology, *pg. 112*

Career Studies Certificate, Emergency Medical Training, *pg. 112*

Career Studies Certificate, Nursing Assistant, *pg. 112*

Career Studies Certificate, Psychological Services Aide-Basic, *pg. 112*

Agriculture Business/ Agriculture Business Management, Natural Resources and Horticulture Degrees and Certificates, *pg. 113*

Associate in Applied Science Degree in Agriculture Business/Agriculture Business Management, *pg. 115*

Associate in Applied Science Degree in Agriculture Business, Horticulture Specialization, *pg. 116*

Associate in Applied Science Degree in Agriculture Business, Natural Resources Management Specialization, *pg. 117*

Certificate in Nursery and Landscape Management, *pg. 118*

Career Studies Certificate, Floral Design and Interior Plantscaping, *pg. 119*

Career Studies Certificate, Greenhouse Production, *pg. 119*

Career Studies Certificate, Horse Science, *pg. 119*

Career Studies Certificate Veterinary Assisting, *pg. 119*

Fine Arts, *pg. 121*

Associate in Arts and Sciences Degree in Liberal Arts, Fine Arts Specialization, *pg. 123*

Certificate in Fine Arts, *pg. 124*

Career Studies Certificate, Ceramic Arts, *pg. 125*

Career Studies Certificate, Fine Arts, *pg. 125*

Career Studies Certificate, Nature and Outdoor Photography, *pg. 125*

Career Studies Certificate, Photography, *pg. 125*

Other Career Certificates, *pg. 127*

Career Studies Certificate, Child Development, *pg. 129*

Career Studies Certificate, Instructional Assistant, *pg. 129*

Career Studies Certificate, Interior Design, *pg. 129*

Career Studies Certificate, Kitchen and Bath Design, *pg. 129*

Career Studies Certificate, Police Science, *pg. 129*

Career Studies Certificate, Sign Communications, *pg. 129*

college transfer two-year degree programs



- Associate in Arts and Sciences Degree in Business Administration
- Associate in Arts and Sciences Degree in Education
- Associate in Arts and Sciences Degree in General Studies
- Associate in Arts and Sciences Degree in Liberal Arts
- Associate in Arts and Sciences Degree in Liberal Arts: Communications Specialization
- Associate in Arts and Sciences Degree in Liberal Arts: Fine Arts Specialization
- Associate in Arts and Sciences Degree in Liberal Arts: Philosophy and Religion Specialization
- Associate in Arts and Sciences Degree in Science

Length:

Four semesters (two-year) program

Purpose:

There is great demand for qualified personnel in business administration to promote leadership and facilitate economic growth in Virginia business and industry. The Associate in Arts and Sciences Degree in Business Administration is designed for students who plan to transfer to a four-year college or university to complete a baccalaureate degree in business administration, accounting, management, marketing, economics, or finance.

Transfer Guidelines:

The Associate in Arts and Sciences Degrees (AA&S) offered by Lord Fairfax Community College are designed to provide freshman and sophomore level coursework towards the completion of a bachelor's degree. The AA&S degree programs require students to take essentially the same courses as required by their university/four-year college counterparts in the areas of mathematics, English, science, humanities, social science, and health/physical education.

To help facilitate the transfer process, each state-supported college and most private colleges in Virginia produce a "Virginia Community College Transfer Guide." These transfer guides provide specific information about the transferability of courses and/or programs to their respective institutions. Transfer guides can be obtained directly from the college of interest or can be referenced in the Student Success office of both the Middletown and Fauquier Campuses. Students may also download many Virginia transfer guides online at the following address: <http://www.so.cc.va.us/transfer.htm>.

Students should begin preparing for transfer as early as possible. Steps in this process include: making a career decision, identifying colleges which offer the intended program of study, examining available transfer guides and college catalogs, talking with transfer representatives, identifying program prerequisites, researching the academic competitiveness of the institutions and program under consideration, attending open house events offered by the colleges, and exploring financial aid and housing opportunities.

Lord Fairfax Community College offers many services and programs to assist the transfer student. Students are encouraged to seek the assistance of their faculty advisor or counselor to gain additional information to plan a successful transfer experience.

Course #	Title	Credits
First Semester		
ENG 111	College Composition I	3
HIS 111	History of World Civilization I (or HIS 121) ¹	3
MTH 163	Pre-Calculus I ⁵ (or MTH 271)	3
STD 100	College Success Skills Science with Laboratory ²	1 4
	Elective	3
	Total	17
Second Semester		
ENG 112	College Composition II	3
HIS 112	History of World Civilization II (or HIS 122) ¹	3
MTH 271	Applied Calculus I ⁵ (or MTH 272 or 241)	3
PED/HLT	Physical Education (or Health) ⁶ Science with Laboratory ²	2 4
	Total	15
Third Semester		
ACC 211	Principles of Accounting I	3
ECO 201	Principles of Macroeconomics	3
ENG	Literature I ⁷ (ENG 241, 243, or 251)	3
SPD 100/110	Principles of Public Speaking Approved Humanities Elective ³	3 3
	Total	15
Fourth Semester		
ACC 212	Principles of Accounting II	3
ECO 202	Principles of Microeconomics	3
ENG	Literature II ⁷ (ENG 242, 244, or 252)	3
	Approved Elective ³	3
	Elective	3
	Total	15
	Program Total	62

¹A full-year sequence of History of World Civilization or US History is required.

²A one-year sequence of Biology, Chemistry, Geology, or Physics is recommended; however, depending on the requirements of the four-year institutions two one-semester courses in different sciences may be substituted with advisor approval.

³Students may select Humanities electives from the approved list found on page 47.

⁴ITE 115 or CSC 155 will satisfy this requirement. Students are required to 1) complete a computer course such as CSC 155, ITE 115, or equivalent or 2) demonstrate proficiency in using a windows based operating system along with word processing, spreadsheet, database management, presentation and communication software by passing a LFCC Computer Competency exam (see page 48). Students eligible for Option 2 may select any appropriate elective. Please consult your academic advisor.

⁵Business Administration students are advised to take MTH 241. Approved math sequences are MTH 163-271, MTH 271-272, or MTH 271-241.

⁶Students are encouraged to determine, with advisor help, transferability of health courses to specific four-year institutions.

⁷A one-year sequence of literature is required.

Associate in Arts and Sciences Degree

Length:

Four semesters (two-year) program

Purpose:

With the rapid development and emphasis on education and the human services professions in Virginia, the demand is growing for qualified specialists to help provide leadership and service for the schools and other human services locations. The Associate in Arts and Sciences Degree program in Education provide freshman and sophomore level coursework towards the completion of a bachelor's degree in education, social work, physical education, or human services.

Transfer Guidelines:

The Associate in Arts and Sciences Degrees (AA&S) offered by Lord Fairfax Community College provide freshman and sophomore level coursework towards the completion of a bachelor's degree. The AA&S degree programs require students to take essentially the same courses as required by their university/four-year college counterparts in the areas of mathematics, English, science, humanities, social science, and health/physical education.

To help facilitate the transfer process, each state-supported college and most private colleges in Virginia produce a "Virginia Community College Transfer Guide." These transfer guides provide specific information about the transferability of courses and/or programs to their respective institutions. Transfer guides can be obtained directly from the college of interest or can be referenced in the Student Success office of both the Middletown and Fauquier Campuses. Students may also download many Virginia transfer guides online at the following address: <http://www.vccs.edu/vccsasr/vccstran.htm>.

Students should begin preparing for transfer as early as possible. Steps in this process include: making a career decision, identifying colleges which offer the intended program of study, examining available transfer guides and college catalogs, talking with transfer representatives, identifying program prerequisites, researching the academic competitiveness of the institutions and program under consideration, attending open house events offered by the colleges, and exploring financial aid and housing opportunities.

Lord Fairfax Community College offers many services and programs to assist the transfer student. Students are encouraged to seek the assistance of their faculty advisor or counselor to gain additional information to plan a successful transfer experience.

Course #	Title	Credits
First Semester		
ENG 111	College Composition I	3
HIS	Approved History Elective ¹	3
MTH	Approved Math Elective ²	3
PSY 200	Principles of Psychology	3
STD 100	College Success Skills	1
	Science with Laboratory ³	4
	Total	17
Second Semester		
ENG 112	College Composition II	3
HIS	Approved History Elective ¹	3
MTH 241	Statistics I	3
GEO	Approved Geography Elective ⁴	3
	Science with Laboratory ³	4
	Total	16
Third Semester		
ENG	Literature Elective ⁵ (ENG 241, 242, 243, 244 or 255)	3
PSY 230	Developmental Psychology	3
	Approved Elective ⁵	3
PED	Physical Education Elective	2
	Approved Humanities Elective ⁷	3-4
	Total	15
Fourth Semester		
EDU 200	Introduction to Teaching as a Profession	3
ENG	Literature Elective ⁵ (ENG 241, 242, 243, 244, or 255)	3
	Elective	3
SPD 100/110	Principles of Public Speaking	3
	Approved Humanities Elective ⁷	3-4
	Total	16
	Program Total	62-64

¹ Depending on the requirements of four-year institutions, two one-semester courses in different histories may be appropriate. Contact your advisor and four-year institution representative.

² To be selected from the following: MTH 151, MTH 152, MTH 163, MTH 173, MTH 271.

³ Depending on the requirements of four-year institutions, two one-semester courses in different sciences may be appropriate. It is recommended that students take BIO 101, BIO 102, CHM 101, CHM 102. Contact your advisor and four-year institution representative.

⁴ To be selected from the following: GEO 200, GEO 210 or GEO 220.

⁵ Depending on the requirements of four-year institutions, two one-semester courses in American, English, or World literature may be appropriate. Contact your advisor and four-year institution representative (may be taken out of sequence).

⁶ ITE 115 or CSC 155 will satisfy this requirement. Students are required to 1) complete a computer course such as CSC 155, ITE 115, or equivalent or 2) demonstrate proficiency in using a windows based operating system along with word processing, spreadsheet, database management, presentation and communication software by passing a LFCC Computer Competency exam (see page 48). Students eligible for Option 2 may select any appropriate elective. Please consult your academic advisor.

⁷ Depending on the requirements of four-year institutions, six to eight credit hours of a single foreign language may be appropriate. Spanish is strongly recommended. Contact your LFCC advisor and four-year institution representative.

Associate in Arts and Sciences Degree

Length:

Four semesters (two-year) program

Purpose:

A significant number of college undergraduate students desire a more comprehensive two-year general degree program than the conventional curriculum. No declaration of a specialized major subject field in the General Studies curriculum is required.

The General Studies curriculum is flexible. Some graduates satisfy their goals by completing the two-year program of general academic studies. Most General Studies students plan to transfer to a four-year college or university as more specialized academic interests and aptitudes develop during the program of studies. The framework of academic standards for the Associate in Arts and Sciences Degree makes this possible.

Transfer Guidelines:

The Associate in Arts and Sciences Degrees (AA&S) offered by Lord Fairfax Community College provide freshman and sophomore level coursework towards the completion of a baccalaureate degree. The AA&S degree programs require students to take essentially the same courses as required by their university/four-year college counterparts in the areas of mathematics, English, science, humanities, social science, and health/physical education.

To help facilitate the transfer process, each state-supported college and most private colleges in Virginia produce a "Virginia Community College Transfer Guide." These transfer guides provide specific information about the transferability of courses and/or programs to their respective institutions. Transfer guides can be obtained directly from the college of interest or can be referenced in the Student Success office of both the Middletown and Fauquier Campuses. Students may also download many Virginia transfer guides online at the following address: <http://www.vccs.edu/vccsasr/vccstran.htm>.

Students should begin preparing for transfer as early as possible. Steps in this process include: making a career decision, identifying colleges which offer the intended program of study, examining available transfer guides and college catalogs, talking with transfer representatives, identifying program prerequisites, researching the academic competitiveness of the institutions and program under consideration, attending open house events offered by the colleges, and exploring financial aid and housing opportunities.

Lord Fairfax Community College offers many services and programs to assist the transfer student. Students are encouraged to seek the assistance of their faculty advisor or counselor to gain additional information to plan a successful transfer experience.

Course #	Title	Credit
First Semester		
ENG 111	College Composition I	3
HIS 111	History of World Civilization I (or HIS 121) ¹	3
MTH 151	Mathematics for the Liberal Arts I (or MTH 163 or 271) ²	3
STD 100	College Success Skills	1
	Science with Laboratory ³	4
	Approved Elective ⁴	3
	Total	17
Second Semester		
ENG 112	College Composition II	3
HIS 112	History of World Civilization II (or HIS 122) ¹	3
MTH 152	Mathematics for the Liberal Arts II (or MTH 164 or 272) ²	3
	Science with Laboratory ³	4
	Elective	3
	Total	16
Third Semester		
ENG	Literature I ⁵ (ENG 241, 243, or 251)	3
	Approved Social Science Elective ⁶	3
PED/HLT	Physical Education (or Health) ⁷	2
	Approved Humanities Electives ⁸	6
	Total	14
Fourth Semester		
ENG	Literature II ⁵ (ENG 242, 244, or 252)	3
	Approved Social Science Elective ⁶	3
SPD 100/110	Principles of Public Speaking	3
	Approved Humanities Electives ⁸	6
	Total	15
	Program Total	62

¹ A full-year sequence of History of World Civilization or US History is required.

² General Studies is a transfer curriculum for students who are undecided about their major program of study. Students considering careers in information systems technology, business administration or science should satisfy the mathematics requirement with precalculus or higher level of math.

³ A one-year sequence of Biology, Chemistry, Geology, or Physics is recommended; however, depending on the requirements of the four-year institutions, two one-semester courses in different sciences may be substituted with advisor approval.

⁴ ITE 115 or CSC 155 will satisfy this requirement. Students are required to 1) complete a computer course such as CSC 155, ITE 115, or equivalent or 2) demonstrate proficiency in using a windows based operating system along with word processing, spreadsheet, database management, presentation and communication software by passing a LFCC Computer Competency exam (see page 48). Students eligible for Option 2 may select any appropriate elective and should consult academic advisors.

⁵ A one-year sequence of literature is recommended.

⁶ Students may select Social Science electives from the approved list found on page 47.

⁷ Students are encouraged to determine, with advisor help, transferability of health courses to specific four-year colleges.

⁸ Students may select Humanities electives from the approved list found on page 47.

Associate in Arts and Sciences Degree

Length:

Four semesters (two-year) program

Purpose:

The Associate in Arts and Sciences Degree program in Liberal Arts is designed for students who plan to transfer to a four-year college or university to complete a baccalaureate degree program, usually the Bachelor of Arts degree, in the liberal arts or social sciences. Students in the program may wish to major in the following fields: American Studies, Anthropology, Art, Communication, Economics, English, Geography, Government, History, Humanities, Journalism, Library Science, Literature, Music, Philosophy, Pre-Law, Psychology, Religion, Sociology, Theatre Arts.

Transfer Guidelines:

The Associate in Arts and Sciences Degrees (AA&S) offered by Lord Fairfax Community College are designed to provide freshman and sophomore level coursework towards the completion of a baccalaureate degree. The AA&S degree programs require students to take essentially the same courses as required by their university/four-year college counterparts in the areas of mathematics, English, science, humanities, social science, and health/physical education.

To help facilitate the transfer process, each state-supported college and most private colleges in Virginia produce a "Virginia Community College Transfer Guide." These transfer guides provide specific information about the transferability of courses and/or programs to their respective institutions. Transfer guides can be obtained directly from the college of interest or can be referenced in the Student Success area of both the Middletown and Fauquier Campuses. Students may also download many Virginia transfer guides online at the following address: <http://www.vccs.edu/vccsasr/vccstran/htm>.

Students should begin preparing for transfer as early as possible. Steps in this process include: making a career decision, identifying colleges which offer the intended program of study, examining available transfer guides and college catalogs, talking with transfer representatives, identifying program prerequisites, researching the academic competitiveness of the institutions and program under consideration, attending open house events offered by the colleges, and exploring financial aid and housing opportunities.

Lord Fairfax Community College offers many services and programs to assist the transfer student. Students are encouraged to seek the assistance of their faculty advisor or counselor to gain additional information to plan a successful transfer experience.

Course #	Title	Credits
First Semester		
ENG 111	College Composition I	3
HIS	History I' (HIS 111, 112, 121, 122)	3
MTH 151	Mathematics for the Liberal Arts I (or MTH 163 or 271)	3
STD 100	College Success Skills	1
PED/HLT	Physical Education (or Health) ²	2
	Approved Humanities Elective ³	3
	Total	15
Second Semester		
ENG 112	College Composition II	3
HIS	History II' (HIS 111, 112, 121,122)	3
MTH 152	Mathematics for the Liberal Arts II (or MTH 164, 241 or 272)	3
	Approved Humanities Elective ³	3
	Approved General Elective	3
	Total	15
Third Semester		
ENG	Literature I' (ENG 241, 243, or 251)	3
SPD 100/110	Principles of Public Speaking (or SPD 110)	3
	Approved Humanities Elective ³	3
	Science with Laboratory ⁵	4
	Approved Social Science Elective ⁶	3
	Total	16
Fourth Semester		
ENG	Literature II' (ENG 242, 244, or 252)	3
PHI	Ethics Elective	3
	Science with Laboratory ⁵	4
	Approved Social Science Elective ⁶	3
	Approved Elective ⁷	3
	Total	16
	Program Total	62

¹Two semesters of US History or World History are required; however, depending on the requirements of the four-year colleges, two one-semester courses in different fields may be substituted with advisor approval.

²Students are encouraged to determine, with their advisor's help, transferability of health courses to specific four-year colleges. In addition, foreign languages are strongly suggested by four-year colleges. Contact advisor for assistance.

³Students may select Humanities electives from the approved list found on page 47. Depending on the requirements of four-year institutions, six to eight credit hours of a single foreign language may be appropriate. Spanish is strongly recommended. Contact your advisor and four-year institution representative.

⁴Two semesters of American, British, or World literature are recommended; however, depending on the requirements of the four-year institution, two one-semester courses in different fields may be substituted with advisor's approval.

⁵A one-year sequence of Biology, Chemistry, Geology, or Physics is recommended; however, depending on the requirements of the four-year institutions, two one-semester courses in different sciences may be substituted with advisor approval.

⁶Students may select Social Science electives from the approved list found on page 47.

⁷ITE 115 or CSC 155 will satisfy this requirement. Students are required to 1) complete a computer course such as CSC 155, ITE 115, or equivalent or 2) demonstrate proficiency in using a windows based operating system along with word processing, spreadsheet, database management, presentation and communication software by passing a LFCC Computer Competency exam (see page 48). Students eligible for Option 2 may select any appropriate elective. Please consult your academic advisor.

Communications Specialization Associate in Arts and Sciences Degree

Length:

Four semesters (two-year) program

Purpose:

The Associate in Arts and Sciences Degree program in Communications is designed for students who plan to transfer to a four-year college or university to complete a baccalaureate degree program, usually the Bachelor of Arts degree, in Communications or related fields. Students in the Communications specialization may wish to major in the following fields: Communications, Creative Writing, Journalism, Mass Media, Popular Culture, Radio & Telecommunications, Speech, or Theatre Arts.

Transfer Guidelines:

The Associate in Arts and Sciences Degrees (AA&S) offered by Lord Fairfax Community College provide freshman and sophomore level coursework towards to completion of a baccalaureate degree. The AA&S degree programs require students to take essentially the same courses as required by their university/ four-year college counterparts in the areas of mathematics, English, science, humanities, social science, and health/physical education.

To help facilitate the transfer process, each state-supported college and most private colleges in Virginia produce a "Virginia Community College Transfer Guide." These transfer guides provide specific information about the transferability of courses and/or programs to their respective institutions. Transfer guides can be obtained directly from the college of interest or can be referenced in the Student Success office of both the Middletown and Fauquier Campuses. Students may also download many Virginia transfer guides online at the following address: <http://www.vccs.edu/vccsacr/vccstran.htm>.

Students should begin preparing for transfer as early as possible. Steps in this process include: making a career decision, identifying colleges which offer the intended program of study, examining available transfer guides and college catalogs, talking with transfer representatives, identifying program prerequisites, researching the academic competitiveness of the institutions and program under consideration, attending open house events offered by the colleges, and exploring financial aid and housing opportunities.

Lord Fairfax Community College offers many services and programs to assist the transfer student. Students are encouraged to seek the assistance of their faculty advisor or counselor to gain additional information to plan a successful transfer experience.

Course #	Title	Credits
First Semester		
ENG 111	College Composition I	3
ENG 120	Survey of Mass Media or Approved Communications Elective ³	3
HIS 111	History of World Civilization I (or HIS 121)	3
MTH 151	Mathematics for the Liberal Arts I (or MTH 163 or 271) Science with Laboratory ¹	3 4
STD 100	College Success Skills	1
	Total	17
Second Semester		
ENG 112	College Composition II	3
HIS 112	History of World Civilization II (or HIS 122)	3
MTH 152	Mathematics for the Liberal Arts II (or MTH 271 or 272) Science with Laboratory ¹	3 4
SPD 100	Principles of Public Speaking	3
	Total	16
Third Semester		
ENG	Literature I ⁷ (ENG 241, 243, or 251)	3
ENG, SPD	Approved Communications Elective ³ Approved Humanities Elective ²	3 3
PED/HLT	Approved Social Science Elective ⁴ Physical Education (or Health) ⁵	3 2
	Total	14
Fourth Semester		
ENG	Literature II ⁷ (ENG 242, 244, or 252)	3
ENG, SPD	Approved Communications Electives ³ Approved Elective ⁶ Approved Social Science Elective ⁴	6 3 3
	Total	15
	Program Total	62

¹A one-year sequence of Biology, Chemistry, Geology, or Physics is recommended; however, depending on the requirements of the four-year institutions, two one-semester courses in different sciences may be substituted with advisor approval.

²Students may select Humanities electives from the approved list found on page 47.

³To be selected from the following: ENG 121-122; ENG 211-212; SPD 116; SPD 136; SPD 233-234; SPD 131-132.

⁴Students may select Social Science electives from the approved list found on page 47.

⁵Students are encouraged to determine, with their advisors' help, transferability of health courses to specific four-year institutions.

⁶ITE 115 or CSC 155 will satisfy this requirement. Students are required to 1) complete a computer course such as CSC 155, ITE 115, or equivalent or 2) demonstrate proficiency in using a windows based operating system along with word processing, spreadsheet, database management, presentation and communication software by passing a LFCC Computer Competency exam (see page 48). Students eligible for Option 2 may select any appropriate elective. Please consult your academic advisor.

⁷A one-year sequence of literature is recommended.

Fine Arts Specialization

Associate in Arts and Sciences Degree

Length:

Four semesters (two-year) program

Purpose:

The Associate in Arts and Sciences Degree in Liberal Arts with a Fine Arts Specialization is designed for students who plan to transfer to a four-year college or university to complete a baccalaureate degree program, usually the Bachelor of Arts degree, in Visual Arts or related fields that would necessitate a studio art experience.

Transfer Guidelines:

The Associate in Arts and Sciences Degrees (AA&S) offered by Lord Fairfax Community College provide freshman and sophomore level coursework towards a completion of a baccalaureate degree. The AA&S degree programs require students to take essentially the same courses as required by their university/four-year college counterparts in the areas of mathematics, English, science, humanities, social science, and health/physical education. In addition to required coursework, students seeking admission into a Fine Arts program prepare a portfolio of their work to showcase their artistic skills.

To help facilitate the transfer process, each state-supported college and most private colleges in Virginia produce a "Virginia Community College Transfer Guide." These transfer guides provide specific information about the transferability of courses and/or programs to their respective institutions. Transfer guides can be obtained directly from the college of interest or can be referenced in the Student Success area of both the Middletown and Fauquier campuses. Students may also download many Virginia transfer guides online at the following address: <http://www.vccs.edu/vccsaser/vccstran.htm>.

Students should begin preparing for transfer as early as possible. Steps in this process include: making a career decision, identifying colleges which offer the intended program of study, examining available transfer guides and college catalogs, talking with transfer representatives, identifying program prerequisites, researching the academic competitiveness of the institutions and program under consideration, attending open house events offered by the colleges, and exploring financial aid and housing opportunities.

Lord Fairfax Community College offers many services and programs to assist the transfer student. Students are encouraged to seek the assistance of their faculty advisor or counselor to gain additional information to plan a successful transfer experience.

Course #	Title	Credits
First Semester		
ART 101	History and Appreciation of Art I	3
ART 121	Drawing I	3
ENG 111	College Composition I	3
HIS 111	History of World Civilization I	3
MTH 151	Mathematics for the Liberal Arts ⁶	3
STD 101	Orientation to the Visual Arts	1
Total		16
Second Semester		
ART 102	History and Appreciation of Art II	3
ART 122	Drawing II ¹	3
ENG 112	College Composition II	3
HIS 112	History of World Civilization II	3
MTH 152	Mathematics for the Liberal Arts ⁶	3
	Approved Elective	3
Total		18
Third Semester		
ART 131	Fundamentals of Design I (includes one credit lab)	4
SPD 100/110	Principles of Public Speaking	3
	Approved Social Science Elective ²	3
	Science with Laboratory ³	4
	Physical Education (or Health)	2
Total		16
Fourth Semester		
ART 132	Fundamentals of Design II ¹ (includes one credit lab)	4
ART EEE	Art Elective ⁵	3
	Approved Social Science Elective ²	3
	Science with Laboratory ³	4
ART 287	Portfolio and Resume Preparation	1
Total		15
Program Total		62-66

¹ Prerequisite: ART 121

² Students may select Social Science electives from the approved list found on page 47.

³ A one-year sequence of Biology, Chemistry, Geology, or Physics is recommended; however, depending on the requirements of the four-year institutions, two one-semester courses in different sciences may be substituted with advisor approval.

⁴ Prerequisite: ART 131

⁵ Approved Art Electives: ART 111, ART 125, ART 153, ART 231, ART 243, ART 283, and ART 284.

⁶ Students may elect to take MTH 163, 164, 173, 241 or 271 in place of MTH 151 and MTH 152.

⁷ ITE 115 or CSC 155 will satisfy this requirement. Students are required to 1) complete a computer course such as CSC 155, ITE 115, or equivalent or 2) demonstrate proficiency in using a windows based operating system along with word processing, spreadsheet, database management, presentation and communication software by passing a LFCC Computer Competency exam (see page 48). Students eligible for Option 2 may select any appropriate elective. Please consult your academic advisor. Students are encouraged to determine, with their advisor's help, transferability of health courses to specific four-year institutions.

Philosophy and Religion Specialization

Associate in Arts and Sciences Degree

Length:

Four semesters (two-year) program

Purpose:

The Associate in Arts and Sciences Degree in Philosophy and Religion is designed for students who plan to transfer to a four-year college, a university, or a seminary for advanced studies. Philosophy and Religion offers an excellent foundation as either a major (or a minor) concentration supporting a wide diversity of life career fields including General Philosophy, Ethics, Religious Studies, Pre-Theology, and Liberal Studies.

Transfer Guidelines:

The Associate in Arts & Sciences Degrees (AA&S) offered by Lord Fairfax Community College provide freshman and sophomore level coursework towards the completion of a baccalaureate degree. The AA&S degree programs require students to take essentially the same courses as required by their university/four-year college counterparts in the areas of mathematics, English, science, humanities, social science, and health/physical education.

To help facilitate the transfer process each state-supported college and most private colleges in Virginia produce a "Virginia Community College Transfer Guide." These transfer guides provide specific information about the transferability of courses and/or programs to their respective institutions. Transfer guides can be obtained directly from the college of interest or can be referenced in the Student Success office of both the Middletown and Fauquier campuses. Students may also download many Virginia transfer guides online at the following address: <http://www.vccs.edu/vccsacr/vccstran.htm>.

Students should begin preparing for transfer as early as possible. Steps in this process include: making a career decision, identifying colleges which offer the intended programs of study, examining available transfer guides and college catalogs, talking with transfer representatives, identifying program prerequisites, researching the academic competitiveness of the institutions and program under consideration, attending open house events offered by the colleges, and exploring financial aid and housing opportunities.

Lord Fairfax Community College offers many services and programs to assist the transfer student. Students are encouraged to seek the assistance of their faculty advisor or counselor to gain additional information to plan a successful transfer experience.

Course #	Title	Credits	
First Semester			
ENG 111	College Composition I	3	
HIS 111	History of World Civilization I (or HIS 121)	3	
MTH 151	Mathematics for the Liberal Arts I (or MTH 163 or 271)	3	
PHI 100	Introduction to Philosophy	3	
STD 100	College Success Skills Science with Laboratory ¹	1 4	
Total		17	
Second Semester			
ENG 112	College Composition II	3	
HIS 112	History of World Civilization II (or HIS 122)	3	
MTH 152	Mathematics for the Liberal Arts II (or MTH 164 or 272)	3	
PED/HLT	Physical Education (or Health) ⁵ Science with Laboratory	2 4	
Total		15	
Third Semester			
ENG	Literature I ⁶ (ENG 241, 243, or 251)	3	
PHI 220	Ethics	3	
PHI 265	Philosophy of Religion or REL 230, Religions of the World Approved Social Science Elective ⁴	3 3	
		Approved Humanities Elective ²	3
Total		15	
Fourth Semester			
ENG	Literature II ⁶ (ENG 242, 244, or 252) Approved Elective ³	3 3	
SPD 100/110	Principles of Public Speaking Approved Social Science Elective ⁴ Approved Humanities Elective ²	3 3 3	
Total		15	
Program Total		62	

¹ A one-year sequence of Biology, Chemistry, Geology, or Physics is recommended; however, depending on the requirements of the four-year institutions, two one-semester courses in different sciences may be substituted with advisor approval.

² Students may select Humanities electives from the approved list found on page 47.

³ ITE 115 or CSC 155 will satisfy this requirement. Students are required to 1) complete a computer course such as CSC 155, ITE 115, or equivalent or 2) demonstrate proficiency in using a windows based operating system along with word processing, spreadsheet, database management, presentation and communication software by passing a LFCC Computer Competency exam (see page 48). Students eligible for Option 2 may select any appropriate elective. Please consult your academic advisor.

⁴ Students may select Social Science electives from the approved list found on page 47.

⁵ Students are encouraged to determine, with their advisors' help, transferability of health courses to specific four-year institutions.

⁶ A one-year sequence of literature is recommended.

Associate in Arts and Sciences Degree

Length:

Four semesters (two-year) program

Purpose:

With the tremendous emphasis on scientific discoveries and technological developments in today's society, great demand exists for scientists, and scientifically-oriented persons in business, government, industry, and the professions. The Associate in Arts and Sciences Degree Program in Science is designed for persons interested in pre-professional scientific programs who plan to transfer to a four-year college or university to complete a baccalaureate or higher degree program with a major in one of the following fields: Agriculture, Astronomy, Biology, Biochemistry, Biotechnology, Botany, Chemistry, Computer Science, Dentistry, Engineering, Entomology, Environmental Science, Forestry, Genetics, Geology, Home Economics, Horticulture, Marine Biology, Mathematics, Meteorology, Medicine, Occupational Therapy, Nuclear Science, Nursing, Pre-Pharmacy, Physical Therapy, Physics, Respiratory Therapy, Science Education, Veterinary Medicine, Wildlife Biology or Zoology.

Transfer Guidelines:

The Associate in Arts and Sciences Degrees (AA&S) offered by Lord Fairfax Community College provide freshman and sophomore level coursework towards the completion of a baccalaureate degree. The AA&S degree programs require students to take essentially the same courses as required by their university/four-year college counterparts in the areas of mathematics, English, science, humanities, social science, and health/physical education.

To help facilitate the transfer process, each state supported college and most private colleges in Virginia produce a "Virginia Community College Transfer Guide." These transfer guides provide specific information about the transferability of courses and/or programs to their respective institutions. Transfer guides can be obtained directly from the college of interest or can be referenced in the Student Success office of both the Middletown and Fauquier Campuses. Students may also download many Virginia transfer guides online at the following address: <http://www.vccs.edu/vccsavr/vccstran.htm>.

Students should begin preparing for transfer as early as possible. Steps in this process include making a career decision, identifying colleges which offer the intended program of study, examining available transfer guides and college catalogs, talking with transfer representatives, identifying program prerequisites, researching the academic competitiveness of the institutions and programs under consideration, attending open house events offered by the colleges, and exploring financial aid and housing opportunities.

Lord Fairfax Community College offers many services and programs to assist the transfer student.

Students are encouraged to seek the assistance of their faculty advisor or counselor to gain additional information to plan a successful transfer experience.

Course #	Title	Credits
First Semester		
ENG 111	College Composition I	3
HIS 111	History of World Civilization I (or US History I)	3
MTH	Math 163, 173, 241 or 271	3-5
STD 100	College Success Skills	1
PED/HLT	Science with Laboratory ²	4
	Physical Education (or Health) ³	2
Total		16-18

Second Semester

ENG 112	College Composition II	3
HIS 112	History of World Civilization II (or US History II) ¹	3
MTH	Math 164, 174, 241, or 272	3-5
	Science with Laboratory ²	4
	Approved Elective ⁴	3
Total		16-18

Third Semester

ENG	Literature I	3
SPD 100/110	Principles of Public Speaking	3
	Approved Science, Math, or Computer Science elective ⁷	3-5
	Approved Social Science Elective ⁵	3
	Science with Laboratory ²	4
Total		16-18

Fourth Semester

	Approved Science, Math, or Computer Science elective ⁷	3-5
	Science with Laboratory ²	4
	Approved Humanities Elective ⁶	3
	Approved Social Science Elective ⁵	3
Total		13-15

Program Total 61-67

¹A full-year sequence of History of World Civilization or US History is required. Consult Transfer guides and advisor for requirements of transfer institution.

²A full-year sequence of Science with Lab is required each year, one of which must be Chemistry or Physics.

³Students are encouraged to determine, with advisor help, transferability of health/physical education courses to specific four-year institutions.

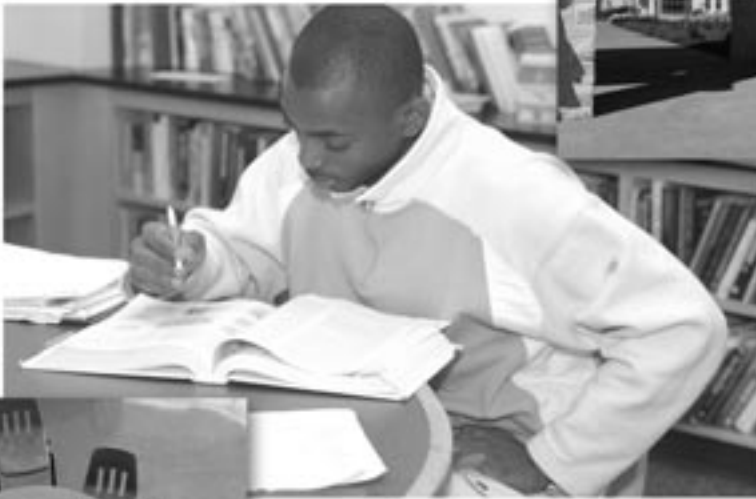
⁴ITE 115 or CSC 155 will satisfy this requirement. Students are required to 1) complete a computer course such as CSC 155, ITE 115, or equivalent or 2) demonstrate proficiency in using a windows based operating system along with word processing, spreadsheet, database management, presentation and communication software by passing a LFCC Computer Competency exam (see page 48). Students eligible for Option 2 may select any appropriate elective. Please consult your academic advisor.

⁵Students may select Social Science electives from the approved list found on page 47.

⁶Students may select Humanities electives from the approved list found on page 47.

⁷May be BIO, CHM, CSC, GOL, MTH, NAS or PHY.

**business
subject area
degrees
and certificates**



- Associate in Arts and Sciences Degree in Business Administration
- Associate in Applied Science Degree in Accounting
- Associate in Applied Science Degree in Management
- Associate in Applied Science Degree in Management, Business Information Technology Specialization
- Associate in Applied Science Degree in Management, Marketing Specialization
- Certificate in Electronic Commerce
- Certificate in Technical Writing
- Career Studies Certificate, General Business
- Career Studies Certificate, Real Estate Sales
- Career Studies Certificate, Sales Management and Marketing
- Career Studies Certificate, Small Business Management
- Career Studies Certificate, Supervision

business administration

Associate in Arts and Sciences Degree

Length:

Four semesters (two-year) program

Purpose:

There is great demand for qualified personnel in business administration to promote leadership and to facilitate economic growth in Virginia business and industry. The Associate in Arts and Sciences Degree curriculum in Business Administration is designed for students who plan to transfer to a four-year college or university to complete a baccalaureate degree in business administration, accounting, management, marketing, economics, or finance.

Transfer Guidelines:

The Associate in Arts and Sciences Degrees (AA&S) offered by Lord Fairfax Community College are designed to provide freshman and sophomore level coursework towards the completion of a bachelor's degree. The AA&S degree programs require students to take essentially the same courses as required by their university/four-year college counterparts in the areas of mathematics, English, science, humanities, social science, and health/physical education.

To help facilitate the transfer process, each state-supported college and most private colleges in Virginia produce a "Virginia Community College Transfer Guide." These transfer guides provide specific information about the transferability of courses and/or programs to their respective institutions. Transfer guides can be obtained directly from the college of interest or can be referenced in the Student Success office of both the Middletown and Fauquier Campuses. Students may also download many Virginia transfer guides online at the following address: <http://www.so.cc.va.us/transfer.htm>.

Students should begin preparing for transfer as early as possible. Steps in this process include: making a career decision, identifying colleges which offer the intended program of study, examining available transfer guides and college catalogs, talking with transfer representatives, identifying program prerequisites, researching the academic competitiveness of the institutions and program under consideration, attending open house events offered by the colleges, and exploring financial aid and housing opportunities.

Lord Fairfax Community College offers many services and programs to assist the transfer student. Students are encouraged to seek the assistance of their faculty advisor or counselor to gain additional information to plan a successful transfer experience.

Course #	Title	Credits
First Semester		
ENG 111	College Composition I	3
HIS 111	History of World Civilization I (or HIS 121) ¹	3
MTH 163	Pre-Calculus I ⁵ (or MTH 271)	3
STD 100	College Success Skills	1
	Science with Laboratory ²	4
	Elective	3
	Total	17
Second Semester		
ENG 112	College Composition II	3
HIS 112	History of World Civilization II (or HIS 122) ¹	3
MTH 271	Applied Calculus I ⁵ (or MTH 272 or 241)	3
PED/HLT	Physical Education (or Health) ⁶ Science with Laboratory ²	2
		4
	Total	15
Third Semester		
ACC 211	Principles of Accounting I	3
ECO 201	Principles of Macroeconomics	3
ENG	Literature I ⁷ (ENG 241, 243, or 251)	3
SPD 100	Principles of Public Speaking Approved Humanities Elective ³	3
		3
	Total	15
Fourth Semester		
ACC 212	Principles of Accounting II	3
ECO 202	Principles of Microeconomics	3
ENG	Literature II ⁷ (ENG 242, 244, or 252)	3
	Approved Elective ⁴	3
	Elective	3
	Total	15
	Program Total	62

¹A full-year sequence of History of World Civilization or US History is required.

²A one-year sequence of Biology, Chemistry, Geology, or Physics is recommended; however, depending on the requirements of the four-year colleges two one-semester courses in different sciences may be substituted with advisor approval.

³Students may select Humanities electives from the approved list found on page 47.

⁴ITE 115 or CSC 155 will satisfy this requirement. Students are required to 1) complete a computer course such as CSC 155, ITE 115, or equivalent or 2) demonstrate proficiency in using a windows based operating system along with word processing, spreadsheet, database management, presentation and communication software by passing a LFCC Computer Competency exam (see page 48). Students eligible for Option 2 may select any appropriate elective. Please consult your academic advisor.

⁵Business Administration students are advised to take MTH 241.

Approved math sequences are MTH 163-271, MTH 271-272, or MTH 271-241.

⁶Students are encouraged to determine, with advisor help, transferability of health courses to specific four-year colleges.

⁷A one-year sequence of literature is required.

Associate in Applied Science Degree

Accounting

Length:

Four semesters (two-year) program

Purpose:

There is a great demand for qualified personnel to assist business management in dealing with rapid development of business and industry in Virginia. The Associate in Applied Science Degree curriculum in Accounting is designed for persons who seek full-time employment in the accounting field immediately upon completion of the community college curriculum. Persons who are seeking their first employment in an accounting position and those presently in accounting who are seeking a promotion may benefit from this curriculum.

Occupational Objectives:

Industry Accountant, Service Business Accountant, Retail Business Accountant, Bank Tellers and Managers, Self-employed Accounting and Tax Services, Accounts Receivable and Accounts Payable Clerks.

Program Requirements:

The first two semesters of the Accounting program are similar to other curricula in business. In the second year each student will pursue a specialty in accounting. The curriculum includes technical courses in accounting and related areas, general education, and electives. Instruction includes both the theoretical concepts and practical and computer applications needed for future success in accounting. Students must consult with their faculty advisor to plan their program and select electives. Upon satisfactory completion of the program, the graduate will be awarded the Associate in Applied Science Degree in Accounting.

Transfer opportunities for Associate of Applied Science degrees, if existing, are very specific in nature. Students enrolling in an Applied Science degree with plans to transfer should explore opportunities with their faculty advisor.

Course #	Title	Credits
First Semester		
ACC 211	Principles of Accounting I	3
ECO 201	Principles of Macroeconomics	3
ENG 111	College Composition I	3
ITE 115	Basic Computer Literacy	4
MTH 120	Introduction to Mathematics	3
STD 100	College Success Skills	1
Total		17
Second Semester		
ACC 212	Principles of Accounting II	3
ECO 202	Principles of Microeconomics	3
ENG 112	College Composition II	3
ITE 140	Spreadsheet Software	4
	Approved Elective ¹	3
Total		16
Third Semester		
ACC 221	Intermediate Accounting I	3
ACC 231	Cost Accounting	3
ACC 261	Principles of Federal Taxation I	3
BUS 241	Business Law I	3
PED/HLT	Physical Education (or Health)	2
SPD 100/110	Principles of Public Speaking	3
Total		17
Fourth Semester		
ACC 222	Intermediate Accounting II	3
ACC 225	Managerial Accounting	3
ACC 262	Principles of Federal Taxation II	3
ACC 298	Accounting Principles Applications	3
BUS 242	Business Law II	3
Total		15
Program Total		65

¹Approved elective is to be selected from courses with the following prefixes ACC, BUS, ECO, FIN and ITE.

Associate in Applied Science Degree Management

Length:

Four semesters (two-year) program

Purpose:

There is great demand for qualified personnel to assist management in dealing with the rapid growth of Virginia business and industry. The Associate in Applied Science Degree in Management is designed for persons who ultimately seek full-time employment in management. Persons who are seeking their first employment on the management ladder and those presently in management who are seeking promotion may benefit from this program.

Occupational Objectives:

Management Trainee, Supervisor, Office Manager, Manager of Small Business, Branch Manager.

Program Requirements:

The first two semesters of the curriculum in Management are similar to other curricula in business. However, in the second year each student will pursue her/his specialty in management. The curriculum includes technical courses in management, courses in related areas, general education, and electives. Instruction consists of both the theoretical concepts and practical applications needed for future success in management. Students are urged to consult with their faculty advisor to plan their program and select electives. Upon satisfactory completion of the program, the graduate will be awarded the Associate in Applied Science Degree in Management.

Transfer opportunities for Associate of Applied Science degrees, if existing, are very specific in nature. Students enrolling in an Applied Science degree with plans to transfer should explore opportunities with their faculty advisor.

Tech Prep Students:

Tech Prep students may be eligible to earn credit for work completed in high school under existing articulation agreements. Students are encouraged to work with their advisors to avoid duplication of course work completed in high school. Students wishing to graduate with all Tech Prep competencies should select MKT 228 as a technical elective.

Students planning to transfer to a baccalaureate program are urged to consider the Business Administration program to earn an Associate in Arts and Sciences Degree.

Course #	Title	Credits
First Semester		
ACC 211	Principles of Accounting I	3
BUS 100	Introduction to Business	3
ENG 111	College Composition I	3
ITE 115	Basic Computer Literacy	4
MTH 120	Introduction to Mathematics	3
STD 100	College Success Skills	1
Total		17
Second Semester		
ACC 212	Principles of Accounting II	3
BUS 200	Principles of Management	3
BUS 205	Human Resource Management	3
ENG 112	College Composition II	3
FIN 107	Personal Finance	3
PED/HLT	Physical Education (or Health)	2
Total		17
Third Semester		
BUS 236	Communications in Management	3
BUS 241	Business Law I	3
ECO 201	Principles of Macroeconomics	3
FIN 215	Financial Management	3
MKT 100	Principles of Marketing	3
	Approved Humanities Elective ¹	3
Total		18
Fourth Semester		
BUS 111	Principles of Supervision I	3
BUS 285	Current Issues in Management	3
MKT 282	Principles of E-Commerce	3
ECO 202	Principles of Microeconomics	3
	Elective	3
Total		15
Program Total		67

¹Students may select Humanities electives from the approved list found on page 47.

Business Information Technology Specialization

Associate in Applied Science Degree

Length:

Four semesters (two-year) program

Purpose:

The Associate in Applied Science Degree in Management is designed for persons who seek full-time employment in management positions upon completion of the community college curriculum. Persons who are seeking their first employment in the managerial field and those presently in management who are seeking promotion may benefit from this curriculum. The Business Information Technology Specialization is designed for those preparing to enter the management area of computer information systems as a career field.

Occupational Objectives:

MIS Manager Trainee, Programmer Trainee, Information Processing Assistant/Liaison.

Program Requirements:

The curriculum in Management is similar to other curricula in business and includes technical courses in information systems technology, courses in related areas, general education, and electives.

Instruction includes both the theoretical concepts and practical (hands-on) applications needed for future success in management. Students are urged to consult with their faculty advisor to plan their program and select electives. Upon satisfactory completion of the program, the graduate will be awarded the Associate in Applied Science Degree in Management with a Business Information Technology specialization.

Transfer opportunities for Associate of Applied Science degrees, if existing, are very specific in nature. Students planning to transfer to a baccalaureate program are urged to consider the Business Administration Program to earn an Associate in Arts and Sciences Degree.

Course #	Title	Credits
First Semester		
ACC 211	Principles of Accounting I	3
BUS 100	Introduction to Business	3
BUS 111	Principles of Supervision	3
ENG 111	College Composition I	3
MTH 120	Introduction to Mathematics	3
STD 100	College Success Skills	1
Total		16
Second Semester		
ACC 212	Principles of Accounting II	3
ENG 112	College Composition II	3
FIN 107	Personal Finance	3
ITE 115	Basic Computer Literacy	4
ITP 100	Software Design	4
Total		17
Third Semester		
ECO 201	Principles of Macroeconomics	3
FIN 215	Financial Management	3
ITE 150	Desktop Database Software	4
MKT 282	Principles of E-Commerce	3
	Approved Humanities Elective ¹	3
Total		16
Fourth Semester		
BUS 200	Principles of Management	3
BUS 285	Current Issues in Management	3
ECO 202	Principles of Microeconomics	3
	Approved Elective ²	3-4
PED/HLT	Physical Education (or Health) Elective	2 3
Total		17-18
Program Total		66-67

¹Students may select Humanities electives from the approved list found on page 47.

²Students may select from ITD, ITE, ITN and ITP courses.



Marketing Specialization
Associate in Applied Science Degree

Length:

Four semesters (two-year) program

Purpose:

With the rapid development of business and industry, there is a growing demand for marketing personnel. The Associate in Applied Science Degree in Marketing is designed for persons who seek full-time employment in areas involving the marketing of goods and services to consumers and organizational buyers. Persons who are seeking their first employment in marketing and those presently in marketing who are seeking promotions may benefit from this program.

Occupational Objectives:

Marketing Trainee, Marketing Research Assistant, Sales Representative, Advertising Representative, Sales Supervisor, Sales Technician.

Program Requirements:

The first two semesters of the curriculum in Marketing are similar to other curricula in business. However, in the second year each student will pursue her/his specialty in marketing. The curriculum includes technical courses in marketing, courses in related areas, general education, and electives. Instruction includes both the theoretical concepts and practical applications needed for future success in marketing. Students are urged to consult with their faculty advisors, plan their program, and select electives. Upon satisfactory completion of the program, the graduate will be awarded the Associate in Applied Science Degree in Management with a Marketing specialization.

Transfer opportunities for Associate of Applied Science degrees, if existing, are very specific in nature. Students enrolling in an Applied Science degree with plans to transfer should explore opportunities with their faculty advisor.

Tech Prep Students:

Tech Prep students may be eligible to earn credit for work completed in high school under existing articulation agreements. Students are encouraged to work with their advisors to avoid duplication of course work completed in high school. Students planning to transfer to a baccalaureate program in business are urged to consider the Business Administration program to earn an Associate in Arts and Sciences degree.

Course #	Title	Credits
First Semester		
BUS 100	Introduction to Business	3
ENG 111	College Composition I	3
ITE 115	Basic Computer Literacy	4
MKT 100	Principles of Marketing	3
MTH 120	Introduction to Mathematics	3
STD 100	College Success Skills	1
Total		17
Second Semester		
BUS 200	Principles of Management	3
BUS 205	Human Resource Management	3
ENG 115	Technical Writing	3
MKT 282	Principles of E-Commerce	3
PED/HLT	Approved Physical Education or Health Elective	2
	Approved Humanities Elective ¹	3
Total		17
Third Semester		
ITD 110	Web Page Design I	3
BUS 241	Business Law I	3
ECO 201	Principles of Macroeconomics	3
FIN 215	Financial Management	3
MKT 229	Marketing Research	3
ACC 211	Principles of Accounting I	3
Total		18
Fourth Semester		
BUS 285	Current Issues in Management	3
ECO 202	Principles of Microeconomics	3
MKT 228	Promotion	3
MKT 271	Consumer Behavior	3
ACC 212	Principles of Accounting II	3
Total		15
Program Total		67

Recommendation: Students are also encouraged to take ITE 150, Desktop Database Software.

¹ Students may select Humanities electives from the approved list found on page 47.

electronic commerce

Certificate

Length:

Two semesters (one-year program)

Purpose:

This certificate is designed to provide students with skills in integrating and supporting e-commerce solutions in their organizations. Individuals who seek employment in the field of electronic commerce and entrepreneurs who want to move their business to the Internet will also benefit from this certificate. Organizations taking advantage of new Internet technologies must have qualified employees to fill positions in this field.

Occupational Objectives:

E-Business Analyst, Web Sales Support Staff, Website Development and Maintenance Specialist, E-Channel Management Specialist, and E-Business Account Manager.

Program Requirements:

The curriculum is designed to integrate courses in information systems technology, marketing, and business. This program provides the student the skills and knowledge needed to develop, support, and maintain an e-commerce website for their organization. The program may be completed on a part-time basis since courses are offered during the day, evening, or online. Upon satisfactory completion of the program, the graduate will receive a Certificate in Electronic Commerce.

Course #	Title	Credits
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First Semester

BUS 100	Introduction to Business	3
ITD 110	Web Page Design I	3
MKT 100	Principles of Marketing	3
ENG 115	Technical Writing	3
BUS 200	Principles of Management	3
STD 100	College Success Skills	1

Total 16

Second Semester

MKT 282	Principles of E-Commerce	3
ITD 210	Web Page Design II	3
ITE 150	Desktop Database Software	4
ITN 260	Network Security Basics	3
	Approved Social Science Elective ¹	3

Total 16

Program Total 32

Recommendation: Electronic Commerce Students are also encouraged to take MKT 271 – Consumer Behavior.

¹Students may select a Social Science elective from the appropriate list found on page 47.

Special Note: (Bridge Courses) This program is designed for those students who have completed a variety of keyboarding and introductory computer application courses at the high school level. A student who has not completed the recommended high school courses may enroll in this program by taking courses designed to bridge the gap. These courses are to be selected by consulting with a IST advisor and may include one or more of the following:

AST 101	Keyboarding 1	3
CSC 155	Computer Concepts and Applications	3
ITE 115	Basic Computer Literacy	4



YOUR FUTURE. OUR FOCUS.

Length:

Two semesters and one summer session (one year) program

Purpose:

The Technical Writing Certificate responds to the current and projected high demand for technical writers in business services or engineering and management services; government; and printing and publishing. Nationwide the employment of technical writers is expected to increase faster than average (i.e. 21% to 35%) for all occupations through 2010, and in Northern Virginia the growth rate is even higher. Technical writers rank number 24 in the Virginia Employment Commission's list of occupations with the largest increase in employment growth between 1998 and 2008 (74%).

Occupational Objectives:

Technical Writer, Technical Writer/Editor, Writer, Writer/Editor, and all specialized fields requiring the support of a technical writer/editor.

Program Requirements:

The curriculum integrates courses in technical writing/editing, desktop publishing, and web page design – the three special skills areas needed to give participants an edge in technical writing and to help them become effective technical writers. It is geared toward those already working in a technical field who wish to develop their technical writing expertise; those who have an educational background already in English and who wish to develop a specialization in technical writing; or those who want to explore a technical writing career.

This program provides students the specific skills and knowledge needed for technical communication, prepares them for the challenges facing today's technical communicator, and takes them through formal coursework designed to enhance career opportunities in the technical writing field. The program includes, as its final component, an internship that may consist of (1) on-the-job training in approved businesses, industrial and service firms or government agencies; (2) career orientation and training in selected businesses, industrial and service firms or government agencies; or (3) a special project/research study relevant to the field.

Course #	Title	Credits
First Semester		
AST 253	Advanced Desktop Publishing I ¹	3
ENG 115	Technical Writing ²	3
ENG 193	Technical Editing	3
ITD 110	Web Page Design I ³	3
STD 100	College Success Skills	1
	Approved Social Science Elective ⁴	3
	Total	16
Second Semester		
AST 254	Advanced Desktop Publishing II ⁵	3
ITD 210	Web Page Design II ⁶	3
ENG 280	Writing User Manuals	3
ENG 293	Special Studies in Technical Writing (e.g. Grant Proposals, Standard Operating Procedures, Government Documents)	3
SPD 110	Intro to Speech Communication	3
	Total	15
Summer Session		
ENG 297	Internship in Technical Writing ⁷	3
	Total	3
	Program Total	34

¹Students must have keyboarding skills. Bridge courses of AST 101 or AST 102 may be required to gain keyboarding skill levels.

²Students are required to complete ENG 111 or to demonstrate equivalent skills before entering this program.

³Students must have computer competency skills. A bridge course of ITE 115 or CSC 155 may be required to gain those skills.

⁴Students may select Social Science electives from the approved list found on page 47.

⁵Prerequisite AST 253

⁶Prerequisite ITD 110

⁷Students may substitute ENG 296 (On-Site Training in Technical Writing) or ENG 298 (Seminar and Project in Technical Writing).

career studies certificates

General Business

Program Head: Prof. James Guiliano

ACC 211	Principles of Accounting I	3
BUS 100	Introduction to Business	3
BUS 205	Human Resources Management	3
BUS 241	Business Law I	3
ITE 115	Basic Computer Literacy	4
MTH 120	Introduction to Mathematics	3
	Total	19

Real Estate Sales

Program Head: Nancy Lloyd

REA 100	Principles of Real Estate	4
	Electives	6
	Total	10

Sales Management and Marketing

Program Head: Prof. Lesley Casula

BUS 236	Communications in Management	3
MKT 100	Principles of Marketing	3
MKT 282	Principles of E-Commerce	3
MKT 228	Promotion	3
MKT 271	Consumer Behavior	3
	Total	15

Small Business Management

Program Head: Prof. James Guiliano

ACC 211	Principles of Accounting I	3
ACC 262	Principles of Federal Taxation II	3
BUS 165	Small Business Management	3
BUS 236	Communication in Management	3
BUS 241	Business Law I	3
MKT 100	Principles of Marketing	3
ITE 115	Basic Computer Literacy	4
	Total	22

Supervision

Program Head: Prof. James Guiliano

BUS 100	Introduction to Business	3
BUS 111	Principles of Supervision I	3
BUS 200	Principles of Management	3
BUS 205	Human Resource Management	3
BUS 236	Communication in Management	3
BUS 241	Business Law I	3
	Total	18



information systems technology subject area degrees and certificates



- Associate in Applied Science Degree in Information Systems Technology/Programming/Systems Analysis
- Associate in Applied Science Degree in Information Systems Technology/Programming/Systems Analysis, End-User Support Specialization
- Associate in Applied Science Degree in Information Systems Technology/Programming/Systems Analysis, Network Engineer Specialization
- Career Studies Certificate, Computer Technology
- Career Studies Certificate, Geographic Information Systems
- Career Studies Certificate, Information/Network Security
- Career Studies Certificate, Internetworking Engineer
- Career Studies Certificate, Network Specialist
- Career Studies Certificate, Web Publishing

information systems technology/programming/systems analysis

Associate in Applied Science Degree

Length:

Four semester (two-year) program

Purpose:

This curriculum is designed to provide skills to students in analyzing, designing, developing, administering, and maintaining information systems.

Occupational Objectives:

This Associate in Applied Science Degree in Information Systems Technology/Programming/Systems Analysis is designed for students who wish to seek full-time employment in the design, analysis, development, deployment, and maintenance of information systems and computer applications.

Program Requirements:

An Information Systems Programmer/Analyst must possess a combination of business administration, keyboarding, accounting, and computer-related skills. These skills are an integral part of the Information Systems Technology (IST) curriculum. The curriculum includes technical courses in information technology, business-related areas, general education, and electives. Instruction is centered on theoretical concepts and practical hands-on applications key to success in the programmer/analyst field. Students are strongly encouraged to consult with their faculty advisor to plan their program and select electives. Upon satisfactory completion of the program the graduate will be awarded the Associate in Applied Science Degree in Information System Technology/Programming/ Systems Analysis.

Transfer Opportunities for Associate of Applied Science degrees, if existing, are very specific in nature. Students enrolling in an Applied Science degree with plans to transfer to a four-year college or university should explore opportunities with their faculty advisor.

Special Note: (bridge courses)

This program is designed for those students who have completed a variety of keyboarding and introductory computer application courses at the high school level. A student who has not completed the recommended high school courses may enroll in the IST program by taking courses designed to bridge the gap. These courses are to be selected by consulting with an IST advisor and may include one or more of the following:

AST 101	Keyboarding I	3 credits
CSC 155	Computer Concepts and Application	3 credits
	or	
ITE 115	Basic Computer Literacy	4 credits

Course #	Title	Credits
First Semester		
ACC 211	Principles of Accounting I	3
ENG 111	College Composition I	3
ITN 106	Microcomputer Operating Systems	3
MTH 151/152	Math for Liberal Arts ¹	3
	Approved ITP/CSC course ²	4
STD 100	College Success Skills	1
	Total	17
Second Semester		
ENG 112	College Composition II	3
	Approved Social Science Elective ³	3
ECO 201/202	Principles of Economics	3
	Approved Humanities Elective ⁴	3
	Approved IT Elective ⁵	3
	Total	15
Third Semester		
ITE 150	Desktop Database Software	4
ITP 112	Visual Basic.NET I	4
ITP 251	Systems Analysis and Design	4
	Approved IT Elective ⁵	4
	Total	16
Fourth Semester		
ENG 115	Technical Writing	3
ITP 258	Systems Development Project	4
PED/HLT	Physical Education (or Health)	2
	Approved IT Elective ⁵	4
	Approved IT Elective ⁵	4
	Total	17
	Program Total	65

¹Students planning to transfer to a four-year college are encouraged to take MTH 163 or MTH 271.

²Students may select ITP 100 or CSC 201 as an introductory computer program design course. Students planning to transfer to a four-year college are encouraged to take CSC 201.

³Students may select a Social Science elective from the approved list found on page 47.

⁴Students may select a Humanities elective from the approved list found on page 47.

⁵To be selected from the following: ITP 120, ITP 132, ITP 136, ITP 140, ITP 212, ITP 220, ITP 232, ITP 236, ITP 240, ITP 242, CSC 201, CSC 202, ITD 110, ITD 210.

Note: Students must complete at least one two-semester sequence of a programming language (Visual Basic, C++, Java, or C#).

End-User Support Specialization

Associate in Applied Science Degree

Length:

Four semesters (two-year) program

Purpose:

This curriculum is designed to provide skills to students in configuring, managing, and maintaining information systems with an emphasis on end-user support and help desk operations.

Occupational Objectives:

This Associate in Applied Science Degree in Information Systems Technology with a Microcomputer Specialization is CompTIA A+ preparatory and is designed for students who wish to seek full-time employment as End-User Support and/or Help Desk Specialists.

Program Requirements:

An End-User Support/Help Desk Specialist must possess a combination of business administration, keyboarding, accounting, and computer-related skills. These skills are an integral part of the Information Systems Technology (IST) curriculum. The curriculum includes technical courses in information technology, business-related areas, general education, and electives. Instruction is centered on theoretical concepts and practical hands-on applications key to success in the end-user support field. Students are strongly encouraged to consult with their faculty advisor to plan their program and select electives. Upon satisfactory completion of the program the graduate will be awarded the Associate in Applied Science Degree in Information Systems Technology with an End-User Support Specialization.

Transfer opportunities for Associate of Applied Science degrees, if existing, are very specific in nature. Students enrolling in an Applied Science degree with plans to transfer to a four-year college or university should explore opportunities with their faculty advisor.

Special Note: (Bridge Courses)

This program is designed for those students who have completed a variety of keyboarding and introductory computer application courses at the high school level. A student who has not completed the recommended high school courses may enroll in the IST program by taking courses designed to bridge the gap. These courses are to be selected by consulting with an IST advisor and may include one or more of the following:

AST 101	Keyboarding I	3 credits
CSC 155	Computer Concepts and Applications	3 credits
ITE 115	Basic Computer Literacy	4 credits

Course #	Title	Credits
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First Semester

ACC 211	Principles of Accounting I	3
ENG 111	College Composition I	3
ITN 106	Microcomputer Operating Systems	3
ITD 110	Web Page Design I	3
MTH 151/152	Mathematics for the Liberal Arts ¹	3
STD 100	College Success Skills	1
Total		16

Second Semester

ENG 112	College Composition II	3
ITE 215	Advanced Computer Literacy	4
ITD 210	Web Page Design II	3
ITN 107	PC Hardware and Troubleshooting	3
	Approved Humanities Elective ²	3
Total		16

Third Semester

	Approved ITP/CSC course ³	4
ECO 201/202	Principles of Economics	3
ITE 150	Desktop Database Software	4
ITP 251	Systems Analysis and Design	4
PED/HLT	Physical Education (or Health)	2
Total		17

Fourth Semester

ENG 115	Technical Writing	3
ITP 258	Systems Development Project	4
	Approved IT Elective ⁴	4
	Approved IT Elective ⁴	3
	Approved Social Science Elective ⁵	3
Total		17

Program Total **66**

¹ Students planning to transfer to a four-year institution are encouraged to take MTH 163 or MTH 271.

² Students may select a Humanities elective from the approved list found on page 47.

³ Students may select ITP 100 or CSC 201 as an introductory computer program design course. Students planning to transfer to a four-year institution are encouraged to take CSC 201.

⁴ Approved electives: GIS 200, GIS 201, ITD 112, ITD 250, ITE 140, ITP 112, ITP 120, ITP 132, ITN 101, ITN 111, ITN 112, ITP 242, ITP 140, ITN 260.

⁵ Students may select a Social Science elective from the approved list found on page 47.

Network Engineer Specialization Associate in Applied Science Degree

Length:

Four semester (two-year) program

Purpose:

This curriculum is designed to provide skills to students in designing, installing, administering, and repairing computer networks.

Occupational Objectives:

This Associate in Applied Science Degree curriculum in Information Systems Technology with a Network Engineer Specialization is designed for students who wish to seek full-time employment as a Network Analyst, Designer, Administrator, or Technician.

Program Requirements:

A Network Specialist must possess a combination of business administration, keyboarding, accounting, and computer-related skills. These skills are an integral part of the Information Systems Technology (IST) curriculum. The curriculum includes technical courses in information technology, business-related areas, general education, and electives. Instruction is centered on theoretical concepts and practical, hands-on applications key to success in the network engineering field. Students are strongly encouraged to consult with their faculty advisor to plan their program and select electives. Upon satisfactory completion of the program the graduate will be awarded the Associate in Applied Science Degree in Information System Technology with a Network Engineer Specialization.

Transfer opportunities for Associate of Applied Science degrees, if existing, are very specific in nature. Students enrolling in an Applied Science degree with plans to transfer to a four-year college or university should explore opportunities with their faculty advisor.

Special Note: (bridge courses)

This program is designed for those students who have completed a variety of keyboarding and introductory computer applications courses at the high school level. A student who has not completed the recommended high school courses may enroll in the IST program by taking courses designed to bridge the gap. These courses are to be selected by consulting with an IST advisor and may include one or more of the following:

AST 101	Keyboarding I	3 credits
CSC 155	Computer Concepts and Applications or	3 credits
ITE 115	Basic Computer Literacy	4 credits

Course #	Title	Credits
First Semester		
ACC 211	Principles of Accounting I	3
ECO 201/202	Principles of Economics	3
ENG 111	College Composition I	3
ITN 106	Microcomputer Operating Systems	3
	Approved ITN course ¹	3
STD 100	College Success Skills	1
	Total	16
Second Semester		
ENG 112	College Composition II	3
MTH 151/152	Mathematics for Liberal Arts ²	3
	Approved Humanities Elective ³	3
ITN 107	PC Hardware and Troubleshooting	3
	Approved Social Science Elective ⁴	3
	Total	15
Third Semester		
ITE 150	Desktop Database Software	4
ITN 111	Windows 2000 Server	4
ITP 251	Systems Analysis and Design	4
PED/HLT	Physical Education (or Health)	2
	Approved ITP/CSC course ⁵	4
	Total	18
Fourth Semester		
ENG 115	Technical Writing	3
	Approved IT Elective ⁶	4
ITN 260	Network Security Basics	3
ITP 258	Systems Development Project	4
	Approved IT Elective ⁶	3
	Total	17
	Program Total	66

¹Students may select ITN 101 or ITN 154.

²Students planning to transfer to a four-year institution are encouraged to take MTH 163 or MTH 271.

³Students may select a Humanities elective from the approved list found on page 47.

⁴Students may select a Social Science elective from the approved list found on page 47.

⁵Students may select ITP 100 or CSC 201 as an introductory computer program design course. Students planning to transfer to a four-year institution are encouraged to take CSC 201.

⁶Approved IT electives: GIS 200, GIS 201, ITD 110, ITD 210, ITD 250, ITE 215, ITP 112, ITP 120, ITN 112, ITP 140, ITN 170, ITN 261, ITN 262, and ITN 263.

career studies certificates

Certificate

Computer Technology

Program Head: Prof. Arthur Lee

ITE 115	Basic Computer Literacy	4
	Approved ITP/CSC course ¹	4
ITE EEE	ITE Application Elective ²	4
ITP/CSC	Programming Elective ³	4
	Total	16

¹Students may select ITP 100 or CSC 201 as an introductory computer program design course. Students planning to transfer to a four-year college are encouraged to take CSC 201.

²ITE 140, ITE 150, or ITE 215 (or other application course as approved by advisor).

³To be selected from the following: ITP 112, ITP 120, ITP 132, ITP 136, CSC 202 (or other programming course as approved by advisor).

Geographic Information Systems

Program Head: Prof. José Nieves, Ph.D.

DRF 231	Computer-Aided Drafting I ¹	2
ENG 115	Technical Writing	3
GIS 200	Geographical Information Systems I ¹	4
GIS 201	Geographical Information Systems II ¹	4
ITE 150	Desktop Database Software ¹	4
ITP 120	Visual Basic.NET I ¹	4
ITD 250	Database Architecture and Administration ¹	4
MTH 241	Statistics I	3
	Total	28

¹Prerequisite course(s) and/or background essential. Please reference Course Descriptions section of this catalog.

Information/Network Security

Program Head: Prof. José Nieves, Ph.D.

ITN 260	Network Security Basics ¹	3
ITN 261	Network Attacks, Computer Crime and Hacking ¹	4
ITN 262	Network Communication, Security and Authentication ¹	4
ITN 263	Internet/Intranet Firewalls and E-Commerce Security ¹	4
	Total	15

¹Prerequisite course(s) and/or background essential. Please reference Course Descriptions section of this catalog.

Internetworking Engineer

Program Head: Prof. Charles Spiro

ITN 154	Networking Fundamentals-Cisco	4
ITN 155	Introductory Routing-Cisco	4
ITN 156	Basic Switching and Routing-Cisco	4
ITN 157	WAN Technologies-Cisco	4
	Total	16

Network Specialist

Program Head: Prof. José Nieves, Ph.D.

ITN 106	Microcomputer Operating Systems ¹	3
	Approved ITN course ²	3
ITN 111	Windows 2000 Server ¹	4
ITN 112	Windows 2000 Network Infrastructure Administration ¹	4
ITN 107	PC Hardware and Troubleshooting ¹	3
	Total	17

¹Prerequisite course(s) and/or background essential. Please reference Course Descriptions section of this catalog.

²Students may select ITN 101 or ITN 154.

Web Publishing

Program Head: Professor Joan J. Osborne

ITE 150	Desktop Database Software ¹	4
	Approved ITP/CSC course ²	4
ITD 110	Web Page Design I ¹	3
	ITD/ART Computer Graphics Elective ³	3
ITD 210	Web page Design II ¹	3
ITP 140	Client Side Scripting ¹	4
	Total	21

¹Prerequisite course(s) and/or background essential. Please reference Course Descriptions section of this catalog.

²Students may select ITP 100 or CSC 201 as an introductory computer program design course. Students planning to transfer to a four-year institution are encouraged to take CSC 201.

³ITD 112 or ART 284.

engineering, construction, and industrial degrees and certificates



- Engineering, Engineering Transfer Program
- Associate in Applied Science Degree in General Engineering Technology/Mechanical Engineering Technology
- Associate in Applied Science Degree in General Engineering Technology, Civil Engineering Technology Specialization
- Associate in Applied Science Degree in General Engineering Technology, Computer-Aided Drafting Specialization
- Associate in Applied Science Degree in General Engineering Technology, Industrial Electricity and Controls Technology Specialization
- Career Studies Certificate, Construction Technology
- Career Studies Certificate, Drafting
- Career Studies Certificate, Electrical Technician
- Career Studies Certificate, HVAC
- Career Studies Certificate, Industrial Design
- Career Studies Certificate, Industrial Maintenance Mechanic

Length:

One year (two-semester) program

Purpose:

This two-semester sequence of courses is designed to fulfill the first year engineering requirements specifically at Virginia Polytechnic Institute and State University. It will also fulfill many, if not all, of the requirements for the first academic year in engineering at many other colleges. It is highly recommended that students confer early with transfer counselors at the institution(s) they wish to attend. Transfer is not guaranteed and is dependent on a space availability basis at all of the transfer colleges including Virginia Polytechnic Institute and State University.

Engineering programs are one of the most academically challenging degree programs. Interested students should make certain they are properly prepared before starting this sequence. Additionally, it is highly recommended that students take this sequence as full-time students. The 18 credits per semester are intended to familiarize the student with the workload they will experience while attending Virginia Polytechnic Institute and State University.

Students interested in this sequence of courses should meet with an advisor or counselor at LFCC. LFCC does not confer any degree or certification upon completion of this sequence

Course #	Title	Credits
First Semester		
MTH 173	Calc with Analytic Geom. I	5
CHM 111	Chemistry I	4
PHY 241	University Physics I ¹	4
ENG 111	College Comp. I	3
EGR 115	Engineering Graphics ²	2
	Total	18
Second Semester		
MTH 174	Calc with Analytic Geom. II	5
CHM 112	Chemistry II	4
PHY 242	University Physics II	4
ENG 112	College Comp. II	3
EGR 120	Intro to Engineering ³	2
	Total	18
	Program Total	36

¹ MTH 173 is a co-requisite for PHY 241

² MTH 173 is a co-requisite for EGR 115

³ EGR 115 is a pre-requisite for EGR 120



general engineering technology/mechanical engineering technology

Associate in Applied Science Degree

Length:

Four semesters (two-year) program

Purpose:

This curriculum provides educational opportunities for those who seek employment in industry, for those who desire to upgrade their knowledge or acquire practical skills in the field, and for those who wish to transfer and complete a Bachelor of Science Degree in Mechanical Engineering Technology.

Occupational Objectives:

Engineering Technician, Engineer's Aide, Draftsman/Designer, Industrial Test Technician, Maintenance Technician, and other related positions.

Transfer Objectives:

Graduates with appropriate course selection may qualify to enter Mechanical Engineering Technology programs at selected universities. Students preparing for transfer must consult with the program advisor. Course selection is very important to assure junior status upon transfer. Potential transfer institutions include Old Dominion University, Rochester Institute of Technology, East Tennessee State, West Virginia Institute of Technology, West Virginia University, and North Carolina State University.

Program Requirements:

The curriculum is designed to integrate courses in mechanical engineering technology, mechanics, physics, general education, drafting, computer information systems, and technical electives.

Students entering the program must have Algebra I and Geometry skills or be willing to improve those skills through developmental studies. The program may be completed on a part-time basis since courses are alternated between day and evening hours.

Technical electives must be selected from an approved list available from the program advisor. Upon satisfactory completion of the four-semester program, the graduate will be awarded the Associate in Applied Science Degree in General Engineering Technology with a Specialization in Mechanical Engineering Technology.

Transfer opportunities for Associate of Applied Science degrees, if existing, are very specific in nature. Students enrolling in an Applied Science degree with plans to transfer should explore opportunities with their faculty advisor.

Tech Prep Students:

Tech Prep students may be eligible to earn credit for work completed in high school under existing articulation agreements. Students are encouraged to work with their advisors to avoid duplication of course work completed in high school. Students planning to

transfer to a baccalaureate program should work with their advisors to select appropriate calculus courses.

Course #	Title	Credits
First Semester		
EGR 110	Engineering Graphics	3
ENG 111	College Composition I	3
MEC 113	Materials and Processes of Industry	3
MTH	Approved Math Elective ¹	3
PED/HLT	Physical Education (or Health)	2
	Approved Social Science Elective ²	3
STD 100	College Success Skills	1
Total		18
Second Semester		
DRF 225	Machine Drawing and Design	3
ENG 115	Technical Writing	3
MEC 120	Principles of Machine Technology	3
MTH	Approved Math Elective ¹	3
	Approved Programming/Computer Elective ³	3
	Approved Social Science Elective ²	3
Total		18
Third Semester		
EGR 135	Statics for Engineering Technology	3
EGR 206	Engineering Economics	3
MEC 116	Jig and Fixture Design	3
PHY 201	General College Physics I	4
	Approved Technical Elective ³	3
Total		16
Fourth Semester		
EGR 136	Strength of Materials	3
EGR 247	Materials Lab	1
ETR 195	Electronics Circuits and Instrumentation	3
PHY 202	General College Physics II	4
	Approved Technical Elective ³	3
	Approved Humanities Elective ⁴	3
Total		17
Program Total		69

¹Approved Math Electives: MTH 115 and MTH 116, or MTH 163 and MTH 164, or MTH 213 and MTH 214 will fulfill the math requirements for the program. Developmental math courses may be required for students to build their math skills before taking any of the approved math electives. Students must take a math placement test to determine their math skill level.

²Students may select Social Science electives from the approved list found on page 47.

³Requires approval of program advisor.

⁴Students may select Humanities electives from the approved list found on page 47.

Civil Engineering Technology Specialization

Associate in Applied Science Degree

Length:

Four semesters (two-year) program

Purpose:

This curriculum provides educational opportunities for those who seek employment in the construction industry, for those who desire to upgrade their knowledge or acquire practical skills in the field, and for those who wish to transfer and complete a Bachelor of Science degree in Civil Engineering Technology.

Occupational Objectives:

Engineering Technician, Engineer's Aide, Draftsman/Designer, Construction/Building Inspector, Construction Estimator, and other related positions.

Transfer Objectives:

Graduates with appropriate course selection may qualify to enter Civil Engineering Technology programs at selected universities. Students preparing for transfer must consult with their program advisors. Course selection is very important to assure junior status upon transfer. Potential transfer institutions include Old Dominion University, Rochester Institute of Technology, East Tennessee State University, West Virginia Institute of Technology, West Virginia University, and North Carolina State University.

Program Requirements:

The curriculum is designed to integrate courses in civil engineering technology, mechanics, physics, general education, drafting, computers, and technical electives. Students entering the program must have Algebra I and Geometry skills or be willing to improve those skills through developmental studies. The program may be completed on a part-time basis since courses are alternated between day and evening hours.

Technical electives must be selected from an approved list available from the program advisor. Upon satisfactory completion of the four-semester curriculum, the graduate will be awarded the Associate in Applied Science Degree in General Engineering Technology with a Specialization in Civil Engineering Technology.

Transfer opportunities for Associate of Applied Science degrees, if existing, are very specific in nature. Students enrolling in an Applied Science degree with plans to transfer should explore opportunities with their faculty advisor.

Tech Prep Students:

Tech Prep students may be eligible to earn credit for work completed in high school under existing articu-

lation agreements. Students are encouraged to work with their advisors to avoid duplication of course work completed in high school. Students wishing to graduate with all Tech Prep competencies should select ARC 121 and ARC 122 as technical electives. Students planning to transfer to a baccalaureate program should work with their advisors to select appropriate calculus courses.

Course #	Title	Credits
First Semester		
ARC 130	Materials and Methods of Construction	3
EGR 110	Engineering Graphics	3
ENG 111	College Composition I	3
PED/HLT	Physical Education (or Health)	2
MTH	Approved Math Elective ¹	3
	Approved Social Science Elective ²	3
STD 100	College Success Skills	1
	Total	18
Second Semester		
ARC 121	Architectural Drafting I	3
CIV 225	Soil Mechanics	2
CIV 226	Soil Mechanics Lab	1
ENG 115	Technical Writing	3
MTH	Approved Math Elective ²	3
	Approved Programming/Computer Elective ³	3
	Approved Social Science Elective ¹	3
	Total	18
Third Semester		
CIV 171	Surveying I	3
EGR 135	Statics for Engineering Technology	3
EGR 206	Engineering Economics	3
PHY 201	General College Physics I	4
	Approved Technical Elective ³	3
	Total	16
Fourth Semester		
CIV 172	Surveying II	3
EGR 136	Strength of Materials	3
EGR 247	Materials Lab	1
PHY 202	General College Physics II	4
	Approved Humanities Elective ⁴	3
	Approved Technical Elective ³	3
	Total	17
	Program Total	69

¹ Approved Math Electives: MTH 115 and 116, or MTH 163 and MTH 164, or MTH 213 and MTH 214 will fulfill the math requirements for the program. Developmental math courses may be required for students to build their math skills before taking any of the approved math electives. Students must take a math placement test to determine their math skill level.

² Students may select Social Science electives from the approved list found on page 47.

³ Requires approval of program advisor

⁴ Students may select Humanities electives from the approved list found on page 47.

Computer-Aided Drafting Specialization

Associate in Applied Science Degree

Length:

Four semesters (two-year) program

Purpose:

Skills in computer-aided drafting are increasingly valuable and sought in the workplace. This curriculum is designed to provide a thorough preparation in drafting, emphasizing the use of computers and, in particular, computer-aided design and drafting. Communication skills and problem-solving skills are also emphasized, both of which are critical to success in the workplace.

Occupational Objectives:

This program is particularly valuable for those who wish to gain employment in technical support careers such as being a drafting technician, computer-aided drafting technician, engineer's aid, CAD operator, or other related positions. It is also valuable for those who need to upgrade skills within their current fields.

Transfer Options:

Although this program is not designed as a transfer program, it does include many courses which will transfer into engineering technology programs at select four-year institutions. This allows students who eventually develop a desire to transfer the opportunity to transfer about two-thirds or more of the credit earned. How much credit is actually transferable depends on the transfer institution selected. Students should work closely with their advisors if and when they develop an interest in transferring.

Program Requirements:

This curriculum integrates courses in civil engineering technology, mechanical engineering technology, drafting, architecture, computer programming, and general education. Students entering the program must have Algebra I and Geometry skills, or be willing to improve those skills through developmental studies. Technical electives should be selected in consultation with an assigned advisor. Upon satisfactory completion of the curriculum, graduates will be awarded the Associate in Applied Science degree in General Engineering Technology with a specialization in Computer-Aided Drafting.

Transfer opportunities for Associate of Applied Science degrees, if existing, are very specific in nature. Students enrolling in an Applied Science degree with plans to transfer should explore opportunities with their faculty advisor.

Tech Prep Students:

Tech Prep students may be eligible to earn credit for work completed in high school under existing articu-

lation agreements. Students are encouraged to work with their advisors to avoid duplication of course work completed in high school. Students wishing to graduate with all Tech Prep competencies should select ARC 121 and ARC 122 as technical electives. Students planning to transfer to a baccalaureate program should work with their advisors to select appropriate calculus courses.

Course #	Title	Credits
First Semester		
ARC 130	Materials and Methods of Construction	3
EGR 110	Engineering Graphics	3
ENG 111	College Composition I	3
MEC 113	Materials and Processes of Industry	3
MTH	Approved Math Elective ¹	3
STD 100	College Success Skills	1
Total		16
Second Semester		
ARC 121	Architectural Drafting I	3
DRF 225	Machine Drafting and Design	3
ENG 115	Technical Writing	3
MEC 120	Principles of Machine Technology	3
MTH	Approved Math Elective ¹	3
	Approved Programming/Computer Elective ²	3
Total		18
Third Semester		
ARC 122	Architectural Drafting II	3
DRF 232	Computer Aided Drafting II	3
EGR 206	Engineering Economics	3
MEC 116	Jig and Fixture Design	3
	Approved Social Science Elective ³	3
	Approved Technical Elective ²	3
Total		18
Fourth Semester		
DRF 233	Computer Aided Drafting III	3
ETR 195	Electronic Circuits and Instrumentation	3
PED/HLT	Physical Education (or Health)	2
	Approved Humanities Elective ⁴	3
	Approved Social Science Elective ³	3
	Approved Technical Elective ²	3
Total		17
Program Total		69

¹Approved Math Electives: MTH 115 and MTH 116, or MTH 163 and MTH 164, or MTH 213 and MTH 214 will fulfill the math requirements for the program. Developmental math courses may be required for students to build their math skills before taking any of the approved math electives. Students must take a math placement test to determine their math skill level.

²Requires approval of program advisor.

³Students may select Social Science electives from the approved list found on page 47.

⁴Students may select Humanities electives from the approved list found on page 47.

Industrial Electricity and Controls Technology Specialization

Associate in Applied Science Degree

Length:

Four semesters (two-year) program

Purpose:

This curriculum provides educational opportunities for those seeking employment in the many manufacturing industries and businesses, which need individuals trained in basic electrical applications, including the control of machinery and processes. It is also appropriate for those attempting to upgrade their knowledge or acquire practical skills. This program can also provide critical education components to apprenticeship programs of various types.

Occupational Objectives:

Electrician's helper, Electrical apprentice, Industrial Electrician, Journeyman Electrician, and other related positions

Program Requirements:

This program is designed to integrate basic industrial electricity courses, basic machinery control courses, basic engineering technology courses and general education courses. Students entering the program should have basic arithmetic skills and must be willing to advance their math skills through required math courses. Most students should start with MTH 103 Applied Technical Math but may select a higher-level math if they are prepared for it. All entering students must take a math placement test to determine their math skill level. Many of the electrical and control courses require the use of mathematics and it is important for students to start with their math courses as early as possible in the program. The basic intent of this program is to produce technically skilled graduates, with a broad technical background and a well-rounded general education foundation. All electives, including technical electives, must come from an approved list or be approved by one of the full-time faculty members teaching technical courses in the program.

Tech Prep Students:

Tech Prep students may be eligible to earn credit for work completed in high school under existing articulation agreements. Students are encouraged to work with their advisors to avoid duplicating work completed in high school or vocational school.

Course #	Title	Credits
First Semester		
MTH	Approved Math Elective ¹	3
EGR 110	Engineering Graphics	3
ELE 133	Practical Electricity I	3
ENG 111	English Composition I	3
MEC 113	Materials and Processes of Industry	3
STD 100	College Success Skills	1
Total		16
Second Semester		
MTH	Approved Math Elective ¹	3
ELE 134	Practical Electricity II	3
ELE 159	Electrical Motors	3
ENG 115	Technical Writing	3
MEC 120	Principles of Machine Technology	3
Total		15
Third Semester		
EGR 206	Engineering Economics	3
ELE 156	Electrical Control Systems	3
	Approved Programming/Computer Elective ²	3
	Approved Social Science Elective ³	3
	Approved Technical Electives ²	6
Total		18
Fourth Semester		
ELE 137	National Electric Code	3
ETR 195	Electronic Circuits and Instrumentation	3
PED/HLT	Physical Education (or Health)	2
	Approved Humanities Elective ⁴	3
	Approved Social Science Elective ³	3
	Approved Technical Elective ²	3
Total		17
Program total		66

¹ Approved Math Electives: MTH 103 and 104, or MTH 115 and 116, or MTH 163 and 164, or MTH 213 and 214 will fulfill the math requirements for the program. Developmental Math courses may be required for students who need to build their math skills before taking any of the approved math electives. Students must take a math placement test to determine their math skill level. Most students will probably want to start with MTH 103.

² Requires approval of program advisor.

³ Students should select Social Science electives from the list on page 47.

⁴ Students should select Humanities electives from the list on page 47.

career studies certificates

Certificate

Construction Technology

Program Head: Prof. William Lewis

ARC 130	Introduction to Materials and Methods of Construction	3
BLD 231	Construction Estimating I ¹	3
DRF 165	Architectural Blueprint Reading	3
	Approved Elective	3
	Total	12

¹ Prerequisites for BLD 231 are DRF 165 and ARC 130.

Drafting

Program Head: Prof. William Lewis

ARC 121	Architectural Drafting I	3
ARC 122	Architectural Drafting II	3
DRF 225	Machine Drawing and Design	3
DRF 232	Computer Aided Drafting II	3
DRF 233	Computer Aided Drafting III	3
EGR 110	Engineering Graphics ¹	3
MEC 113	Materials and Processing of Industry	3
	Total	21

¹ Prerequisite for ARC 121, DRF 225, and DRF 232.

Electrical Technician

Program Head: Prof. Gene Loranger

ELE 133	Practical Electricity I	3
ELE 159	Electrical Motors	3
MTH 103	Applied Tech Math	3
DRF 175	Schematics	2
ELE 134	Practical Electricity II	3
ELE 156	Electrical Control Systems	3
ELE 239	Programmable Logic Controllers	3
ELE 135	National Electrical Code Industrial	3
	or	
ELE 136	National Electrical Code Commercial	3
	or	
ELE 137	National Electrical Code Residential	3
	Total	23

HVAC

Program Head: Nancy Lloyd

AIR 121	Air Conditioning and Refrigeration I	3
AIR 122	Air Conditioning and Refrigeration II	3
AIR 154	Heating Systems I	3
AIR 155	Heating Systems II	3
ELE 133	Practical Electricity I	3
AIR 134	Circuit and Controls I	3
	Total	18

Industrial Design

Program Head: Prof. William Lewis

EGR 135	Statics for Engineering Technology ¹	3
EGR 136	Strength of Materials for Engineering Technology ¹	3
EGR 247	Mechanics Laboratory ¹	1
MEC 113	Materials and Processes of Industry	3
MEC 120	Principles of Machine Technology	3
MTH 115	Technical Mathematics I	3
MTH 116	Technical Mathematics II	3
	Total	19

¹ Prerequisites for EGR 135 are MTH 115. Prerequisites for EGR 136 are EGR 135 and MTH 116. Prerequisite for EGR 247 is EGR 136. Prerequisites for MEC 210 are EGR 136 and MEC 113.

Industrial Maintenance Mechanic

Program Head: Prof. Gene Loranger

ELE 126	Electricity and Shop Power Distribution	2
ELE 156	Electrical Control Systems	3
ELE 159	Electrical Motors	3
ELE 133	Practical Electricity I	3
AIR 121	Air Conditioning I	3
WEL 120	Welding Fundamentals	3
DRF 175	Schematics	2
ELE 134	Practical Electricity II	3
	Electives ¹	3
	Total	25

¹ Students are encouraged to select DRF 175 Schematics and Mechanical Diagrams and MTH 103, (Math for the Trades), MEC 120, MEC 165, ELE 239 to satisfy the elective requirement.

administrative support technology degrees and certificates



- Associate in Applied Science Degree in Administrative Support Technology
- Associate in Applied Science Degree in Administrative Support Technology, Administrative Assistant Specialization
- Associate in Applied Science Degree in Administrative Support Technology, Desktop Publishing Specialization
- Certificate in Graphic Design Office Assistant
- Certificate in Office Legal Assistant/Paralegal Studies
- Certificate in Medical Billing/Coding
- Certificate in Medical Secretary/Transcription
- Certificate in Office Systems Assistant
- Career Studies Certificate, Desktop Publishing Technician
- Career Studies Certificate, Information Processing Technician

administrative support technology

Associate in Applied Science Degree

Length:

Four semesters (two-year) program

Purpose:

With the rapid development of business, industry, and government in Virginia, there is growing demand for administrative support personnel who possess high-level technical, interpersonal, and leadership skills. The Associate in Applied Science Degree curriculum in Administrative Support Technology is designed to prepare individuals for full-time employment immediately upon completion of the community college program. This program is beneficial for individuals who are seeking first-time employment, career advancement, promotion, or MOS certification.

Occupational Objectives:

Executive Assistant, Administrative Support Specialist, Office Manager, Customer Service Representative, and Marketing Assistant.

Program Requirements:

The two-year curriculum in Administrative Support Technology includes instruction in administrative support technology, general education, computer skills, and electives. Students are advised to consult with their faculty advisors in planning their programs and selecting electives. Upon satisfactory completion of the program, the graduate will be awarded the Associate in Applied Science Degree in Administrative Support Technology.

Transfer opportunities for Associate of Applied Science degrees are very specific in nature. Students enrolling in an Applied Science degree with plans to transfer should explore opportunities with their faculty advisor.

Teacher Certification/Business Education Transfer Information

Students planning to transfer into a Business Education specialization are encouraged to enroll in Math 151 and Math 152. In addition, these courses may be required: AST 102 Keyboarding II, AST 141 Word Processing I, AST 243 Business Administration or AST 135 Simulation in Office Procedures, and AST 236 Specialized Software Applications or AST 232 Microcomputer Office Applications. Contact the program advisor for additional information regarding elementary/secondary teacher education transfer requirements.

Course #	Title	Credits
First Semester		
AST 102	Keyboarding II ¹	3
AST 107	Editing and Proofreading Skills ²	3
ENG 111	College Composition I	3
ITE 115	Basic Computer Literacy	4
MTH 120	Introduction to Mathematics	3
STD 100	College Success Skills	1
Total		17
Second Semester		
ACC 211	Principles of Accounting I	3
AST 205	Business Communications	3
BUS 100	Introduction to Business	3
ENG 112	College Composition II	3
PED/HLT	Physical Education (or Health)	2
SPD 100/110	Principles of Public Speaking	3
Total		17
Third Semester		
AST 141	Word Processing I ³	3
AST 234	Records and Database Management ²	3
AST 243	Office Administration I ⁴	3
ECO 201	Principles of Macroeconomics	3
	or	
ECO 202	Principles of Microeconomics	
	Approved Social Science Elective ³	3
	Approved AST Elective ⁴	3
Total		18
Fourth Semester		
AST 142	Word Processing II ⁵	3
AST 206	Professional Development	3
AST 244	Office Administration II ⁶	3
BUS 200	Principles of Management	3
BUS 241	Business Law I	3
	or	
BUS 242	Business Law II	
Total		15
Program Total		67

¹Students who have completed prior training in keyboarding may petition for AST course substitution or articulation credit.

²Prerequisite: AST 102 or equivalent skill.

³Students may select Social Science electives from the approved list found on page 47.

⁴Approved AST electives include: AST 230, AST 253, AST 257, AST 260.

⁵Prerequisite: AST 141 or equivalent skill.

⁶Prerequisite: AST 243 or instructor approval.

administrative support technology

Administrative Assistant Specialization Associate in Applied Science Degree

Length:

Four semesters (two-year) program

Purpose:

There is continuing demand for personnel who possess a mastery of office skills, who demonstrate the ability to assume responsibility without direct supervision, and who exercise sound judgment within the scope of assigned authority. The Associate in Applied Science Degree curriculum in Administrative Support Technology with the Administrative Assistant Specialization is designed to prepare individuals for full-time employment immediately upon completion of the community college program. This program is beneficial for individuals who are seeking first-time employment, career advancement, or MOS certification.

Occupational Objectives:

Administrative Assistant, Information Coordinator, Special Projects Assistant, Human Resources Assistant, and Personal Assistant.

Program Requirements:

The two-year curriculum in Administrative Support Technology includes instruction in administrative support technology, general education, computer skills, and electives. Students are advised to consult with their faculty advisors in planning their programs and selecting electives. Upon satisfactory completion of the program, the graduate will be awarded the Associate in Applied Science Degree in Administrative Support Technology with an Administrative Assistant Specialization.

Transfer opportunities for Associate of Applied Science degrees are very specific in nature. Students enrolling in an Applied Science degree with plans to transfer should explore opportunities with their faculty advisor.

Course #	Title	Credits
First Semester		
AST 102	Keyboarding II ¹	3
AST 107	Editing and Proofreading Skills ²	3
ENG 111	College Composition I	3
ITE 115	Basic Computer Literacy	4
MTH 120	Introduction to Mathematics	3
STD 100	College Success Skills	1
Total		17
Second Semester		
ACC 211	Principles of Accounting I	3
BUS 100	Introduction to Business	3
ENG 115	Technical Writing	3
PED/HLT	Physical Education (or Health)	2
SPD 100/110	Principles of Public Speaking	3
	Approved AST Elective ³	3
Total		17
Third Semester		
AST 141	Word Processing I ⁴	3
AST 234	Records and Database Management ²	3
AST 243	Office Administration I ⁵	3
BUS 236	Communications in Management	3
ECO 201	Principles of Macroeconomics	3
	or	
ECO 202	Principles of Microeconomics	
	Approved Social Science Elective ⁵	3
Total		18
Fourth Semester		
AST 142	Word Processing II ⁶	3
AST 206	Professional Development	3
AST 230	Introduction to Office Technology	3
AST 244	Office Administration II ⁷	3
BUS 241	Business Law I	3
	or	
BUS 242	Business Law II	
Total		15
Program Total		67

¹Students who have completed prior training in keyboarding may petition for course substitution or articulation credit.

²Students must have keyboarding skills. Bridge courses of AST 101 or AST 102 may be required to gain keyboarding skills required.

³Approved AST electives: AST 205, AST 253, AST 257, AST 260.

⁴Prerequisite: AST 102 or equivalent skill.

⁵Students may select Social Science electives from the approved list found on page 47.

⁶Prerequisite: AST 141 or equivalent skill.

⁷Prerequisite: AST 243 or instructor approval.

administrative support technology

Desktop Publishing Specialization

Associate in Applied Science Degree

Length:

Four semesters (two-year) program

Purpose:

There is an increasing demand for office personnel who are qualified to produce in-house documents for both print and online publishing projects. The Associate in Applied Science Degree curriculum in Administrative Support Technology with the Desktop Publishing Specialization is designed to prepare individuals for full-time employment immediately upon completion of the community college program. This program is beneficial to individuals who are seeking first-time employment, career advancement, or MOS certification.

Occupational Objectives:

Publishing Assistant, Graphic Design Assistant, Publications Specialist, Information Specialist, Marketing Technology Specialist.

Program Requirements

The two-year curriculum in Administrative Support Technology with the Desktop Publishing Specialization includes instruction in administrative support technology, desktop publishing, and general education. Students are advised to consult with their faculty advisors in planning their programs and selecting electives. Upon satisfactory completion of the program, the graduate will be awarded the Associate in Applied Science Degree with a major in Administrative Support Technology with a Desktop Publishing Specialization.

Transfer opportunities for Associate of Applied Science degrees are very specific in nature. Students enrolling in an Applied Science degree with plans to transfer should explore opportunities with their faculty advisor.

Course #	Title	Credits
First Semester		
AST 141	Word Processing I ¹	3
AST 107	Editing and Proofreading Skills ¹	3
ENG 111	College Composition I	3
ITE 115	Basic Computer Literacy	4
MTH 120	Introduction to Mathematics	3
STD 100	College Success Skills	1
Total		17
Second Semester		
ACC 211	Principles of Accounting I	3
AST 142	Word Processing II ²	3
AST 260	Presentation Software ¹	3
ENG 115	Technical Writing	3
SPD 100/110	Principles of Public Speaking	3
PED/HLT	Physical Education (or Health)	2
Total		17
Third Semester		
ART 284	Computer Graphics II	3
AST 243	Office Administration I ¹	3
AST 253	Advanced Desktop Publishing I ¹	3
AST 257	WP Desktop Publishing ³	3
BUS 100	Introduction to Business	3
ECO 201	Principles of Macroeconomics	3
ECO 202	Principles of Microeconomics	3
Total		18
Fourth Semester		
AST 244	Office Administration II ³	3
AST 254	Advanced Desktop Publishing II ⁴	3
BUS 241	Business Law I	3
BUS 242	Business Law II	3
	Approved Social Science Elective ⁵	3
	Approved AST Elective ⁶	3
Total		15
Program Total		67

¹Students must have keyboarding skills. Bridge courses of AST 101 or AST 102 may be required to gain keyboarding skill levels required.

²Prerequisite: AST 141 or equivalent skill.

³Prerequisite: AST 243 or instructor approval.

⁴Prerequisite: AST 253 or equivalent skills.

⁵Students may select Social Science electives from the approved list found on page 47.

⁶Approved AST electives: AST 102, AST 205, AST 206, AST 230, AST 234.

graphic design office assistant

Certificate

Length:

Two semesters (one-year) program

Purpose:

Commercial and industrial expansion in Virginia is steadily increasing the demand for qualified office assistants in desktop publishing and graphic design. The in-house publishing needs of small- and medium-sized businesses require office workers skilled in using the PC platform for both graphic design and desktop publishing. The Graphic Design Office Assistant Certificate is designed to prepare persons for full-time employment in a variety of office positions requiring these skills.

Occupational Objectives:

Office Publishing Specialist, Special Projects Assistant, Graphic Design Assistant, and other specialized office publishing careers.

Program Requirements:

This program prepares the student to fill general office desktop publishing and graphic design positions in small- and medium-sized businesses. The curriculum includes courses in graphic design, math, and desktop publishing. Upon satisfactory completion of the program, the graduate will receive the Certificate in Graphic Design Office Assistant.

Course #	Title	Credits
First Semester		
ART 283	Computer Graphics I	3
AST 253	Advanced Desktop Publishing I ¹	3
AST 257	WP Desktop Publishing I ²	3
MTH 120	Introduction to Mathematics	3
STD 100	College Success Skills	1
	Approved Elective ³	3
Total		16
Second Semester		
AST 206	Professional Development	3
ART 284	Computer Graphics II	3
AST 254	Advanced Desktop Publishing II ⁴	3
AST 260	Presentation Software ⁵	3
ENG 111	College Composition I	3
	Approved Social Science Elective ⁵	3
Total		18
Program Total		34

¹Keyboarding skill is required. Prerequisite: AST 101 or equivalent skill.

²Word processing and basic computer skills are required. Prerequisite: AST 141 or ITE 115 or equivalent skill.

³Approved electives: AST 107, AST 141, AST 142, AST 230, ENG 115, ENG 211, ITD 110, ITE 115, ITE 140, MKT 100, MKT 228, MKT 282.

⁴Prerequisite: AST 253 or equivalent skill.

⁵Students may select a Social Science elective from the approved list found on page 47.

office legal assistant/paralegal studies

Certificate

Length:

Two semesters (one-year) program.

Purpose:

With an increasing demand for paralegals and office legal assistants in professional offices, corporations, and businesses, this certificate will prepare individuals for full-time employment upon completion of the community college program. The program is beneficial for individuals who are seeking first-time employment, career advancement, or paralegal certification.

Occupational Objectives:

Legal Assistant, Paralegal.

Program Requirements:

This program prepares the student to fill legal assistant and paralegal positions and provides fundamental knowledge and skills associated with legal research and documentation of that research. The curriculum includes courses in family law, real estate law, civil and criminal law, legal ethics, and legal research. Upon satisfactory completion of the program, the graduate will be awarded a Certificate in Office Legal Assistant/Paralegal Studies.

Course#	Title	Credits
First Semester*		
ENG 111	College Composition I	3
LGL 115	Real Estate Law for Legal Assistants	3
LGL 117	Family Law	3
LGL 200	Ethics for the Legal Assistants	1
LGL 235	Legal Aspects of Business Organization	3
SOC 200	Principles of Sociology	3
STD 100	College Success Skills	1
Total		17
Second Semester		
AST 206	Professional Development	3
LGL 127	Legal Research and Writing	3
LGL 215	Torts	3
LGL 217	Trial Practice and the Law of Evidence	3
LGL 225	Estate Planning and Probate	3
LGL 230	Legal Transactions	3
Total		18
Program Total		35

*AST 141 Word Processing I required as a prerequisite to enter certificate program (or equivalent skill).



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Certificate

Length:

Two semesters (one-year) program

Purpose:

With an increasing demand for medical insurance billing and coding workers in professional offices in Virginia, this certificate will prepare individuals for full-time employment upon completion of the program. The program is beneficial for individuals who are seeking first-time employment, career advancement, or national coding certification.

Occupational Objectives:

Medical Billing Assistant, Medical Coder, Medical Insurance Specialist

Program Requirements:

The program prepares the student to fill medical billing and coding positions and provides fundamental knowledge and skills associated with insurance billing and coding. The curriculum includes courses in college composition, coding and reimbursement, and medical office bookkeeping and insurance. Upon satisfactory completion of the program, the graduate will be awarded a Certificate in medical Billing/Coding.

Course #	Title	Credits
First Semester		
AST 102	Keyboarding II ¹	3
or		
AST 141	Word Processing I ²	3
ENG 111	College Composition I	3
HIT 111	Medical Terminology I	3
HIT 253	Health Records Coding ³	4
MDA 206	Medical Office Bookkeeping and Insurance	4
STD 100	College Success Skills	1
Total		18
Second Semester		
AST 205	Business Communication	3
AST 206	Professional Development ¹	3
HIT 112	Medical Terminology II ⁴	3
HIT 254	Advanced Coding & Reimbursement ⁵	3
PHI 227	Bio-Medical Ethics	3
PNE 155	Body Structure and Function	3
Total		18
Program Total		36

¹ Keyboarding skill is required. Co-Requisite: AST 101 or equivalent skill.

² Prerequisite: AST 102 or equivalent skill.

³ Prerequisite: HIT 111 and MDA 206

⁴ Prerequisite: HIT 111

⁵ Prerequisite: HIT 253

Note: Internship opportunities and a national certification exam may be available to certificate students/graduates

medical secretary/transcription

Certificate

Length:

Two semesters (one-year) program.

Purpose:

With an increasing demand for medical office assistants in Virginia, this certificate will prepare individuals for full-time employment upon completion of the community college program. The program is beneficial for individuals who are seeking first-time employment, career advancement, or national certification.

Occupational Objectives:

Medical Office Assistant, Medical Secretary, Ward Clerk, Medical Transcription, Medical Reception.

Program Requirements:

This program prepares the student to fill medical secretary, medical office assistant, and medical transcription positions and provides fundamental knowledge and skills associated with these medical careers. The curriculum includes courses in transcription, office technology, body structure and function, and bio-ethics. Upon satisfactory completion of the program, the graduate is awarded a Certificate in Medical Secretary/Transcription.

Course#	Title	Credits
First Semester		
AST 215	Medical Keyboarding	
	or	
AST 102	Keyboarding II ¹	3
AST 271	Medical Office Procedures I ²	
	or	
AST 243	Office Administration I	3
ENG 111	College Composition I	3
HIT 111	Medical Terminology I	3
PNE 155	Body Structure and Function	3
PHI 227	Bio-Medical Ethics	3
STD 100	College Success Skills	1
	Total	19
Second Semester		
AST 107	Editing and Proofreading Skills ¹	3
AST 141	Word Processing I ²	3
AST 206	Professional Development	3
AST 245	Medical Machine Transcription ³	3
HIT 112	Medical Terminology II ³	3
HIT 230	Information Systems and Technology in Health Care	
	or	
AST 230	Introduction to Office Technology	3
	Total	18
	Program Total	37

¹ Prerequisite: AST 101 or equivalent skill.

² Prerequisite: AST 102 or equivalent skill.

³ Prerequisite: HIT 111

Note: Internship opportunities and a national certification exam may be available to certificate students/graduates.

office systems assistant

Certificate

Length:

Two semesters (one-year) program

Purpose:

Commercial and industrial expansion in Virginia is steadily increasing the demand for qualified records management and word processing personnel. The Office Systems Assistant Certificate Program is designed to prepare graduates for full-time employment in a variety of office positions.

Occupational Objectives:

Office Assistant, Records Clerk, Receptionist, Information Processing Specialist, Data Entry Specialist, Proofreader/Editor, Office Support Technician, or Front Desk Coordinator.

Program Requirements:

The program prepares the student to fill clerical and word processing positions and provides fundamental knowledge and skills associated with general office work. The curriculum includes courses in keyboarding, math, business, word processing, and business communications. Students who have satisfactorily completed high school courses in keyboarding with a grade of "C" or better may take word processing courses. (Proof by means of a high school transcript must be on file in the Admissions and Records Office.) Upon satisfactory completion of the program, the graduate will receive the Office Systems Assistant Certificate.

Course #	Title	Credits
First Semester		
AST 102	Keyboarding II ¹	3
AST 141	Word Processing ¹	3
AST 107	Editing and Proofreading Skills ¹	3
AST 234	Records and Database Management ¹	3
BUS 100	Introduction to Business	3
ENG 111	College Composition I	3
STD 100	College Success Skills	1
	Total	16
Second Semester		
AST 141	Word Processing I ² or	3
AST 142	Word Processing II ³	3
AST 206	Professional Development	3
MTH 120	Introduction to Mathematics	3
	Approved Social Science Elective ⁴	3
	Approved Elective ⁵	3
	Total	15
	Program Total	31

¹Keyboarding skill is required. Prerequisite AST 101 or equivalent skill.

²Prerequisite: AST 102 or equivalent skill.

³Prerequisite: AST 141 or equivalent skill.

⁴Students may select Social Science electives from the approved list found on page 47.

⁵Approved Electives: AST 205, AST 230, AST 253, AST 257, AST 260, ITD 110, ITD 210, IST 226, MKT 282.

career studies certificates

Certificate

Desktop Publishing Technician

Program Head: Prof. Virginia Hartman		
AST 141	Word Processing I ¹	3
AST 142	Word Processing II ²	3
AST 206	Professional Development	3
AST 253	Advanced Desktop Publishing I ³	3
AST 254	Advanced Desktop Publishing II ⁴	3
AST 257	WP Desktop Publishing ⁵	3
AST 260	Presentation Software ⁶	3
	Total	21

¹Keyboarding skill is required. Prerequisite: AST 101 or equivalent skill.

²Prerequisite AST 141 or equivalent skill.

³Prerequisite: AST 101 or ITE 115 or equivalent.

⁴Prerequisite: AST 253

⁵Prerequisite: AST 141 or equivalent skill.

⁶Keyboarding skill and computer knowledge are required.

Prerequisite: AST 101 and ITE 115 or equivalent skill.

Recommendation: Career-seeking students are also encouraged to enroll in the Graphic Design Office Assistant one-year certificate and/or the Administrative Support Technology, Desktop Publishing Specialization Associate Degree Program.

Information Processing Technician

Program Head: Prof. Virginia Hartman		
AST 107	Editing and Proofreading Skills ¹	3
AST 141	Word Processing I ²	3
AST 142	Word Processing II ³	3
AST 205	Business Communications	3
AST 206	Professional Development	3
AST 234	Records and Database Management ⁴	3
AST 243	Office Administration I ¹	3
	Total	21

¹Keyboarding skill is required. Co-requisite: AST 101 or equivalent skill.

²Keyboarding skill and computer knowledge are required.

Prerequisite: AST 101 or equivalent skill.

³Prerequisite: AST 141 or equivalent skill.

Recommendation: Career-seeking students are also encouraged to enroll in the Office System Assistant one-year certificate and/or the Administrative Support Technology; Administrative Assistant Specialization Associate Degree Program.



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health professions degrees and certificates



- Associate in Applied Science Degree in Nursing
- Associate in Applied Science Degree in Dental Hygiene (VWCC)
- Certificate in Medical Billing/Coding
- Certificate in Medical Secretary/Transcription
- Certificate in Practical Nursing
- Certificate in Surgical Technology (PVCC)
- Career Studies Certificate, Emergency Medical Technology
- Career Studies Certificate, Emergency Medical Training
- Career Studies Certificate, Nursing Assistant
- Career Studies Certificate, Psychological Services Aide-Basic

Length:

Five semesters

Purpose:

The two-year Associate in Applied Science Degree Program in Nursing is designed to prepare selected students to function as contributing members of the health care team, providing direct patient care as beginning practitioners of nursing in a variety of health care environments. Students who successfully complete the curriculum are awarded the Associate of Applied Science Degree with a major in nursing and are eligible to apply to take the National Council Licensure Examination (NCLEX-RN) leading to licensure as a registered nurse (RN). The Board of Nursing can deny licensure to any applicant who has filed false information and/or who has committed a felony/misdemeanor. Certain health care facilities may not employ individuals who have committed certain criminal acts and may conduct criminal background checks before hiring potential employees.

The Associate Degree in Nursing (ADN) program is designed to provide a base of general education from which the graduate will grow and develop as a contributing member of society. The curriculum also provides a background for maximum transfer opportunities to baccalaureate programs. The ADN Program is an academically challenging program. The Program is open to men and women who provide evidence of interest, motivation, and aptitude in the area of health care. Students shall be selected on the basis of established criteria and without regard to age, race, creed, sex, or national origin. Students with disabilities who meet the admission requirements, pass the physical/mental exam, and submit the physical examination form signed by their health care provider stating that they are able to perform as student nurses in the clinical setting are eligible for admission. It is the responsibility of the student to meet the physical/mental requirements for state licensure. Lord Fairfax Community College (LFCC) does not discriminate on the basis of race, color, creed, religion, national origin, disability, age, gender or sexual orientation in their admission procedures.

Occupational Objectives:

Opportunities for the graduate nurse include, but are not limited to, hospitals, long-term-care facilities, clinics, home health, health departments, primary care offices, day-care centers, civil service, military service, industry, private duty and community health services.

Admission Requirements:

Requirements for admissions to the ADN Program are specific and admission is selective and competitive. All admission requirements must be completed in order to be considered in the selection process. In all cases, the recommendation of the Selection Committee is the final determinant for admission to the nursing program.

1. Completion of LFCC Application for Admission
2. HS Diploma or GED – Official Transcripts must be forwarded to the Office of Admissions
3. Completion of LFCC Placement Tests in mathematics, reading and writing skills (if required) and any recommended developmental coursework.
4. Completion of:
 - High School Biology or BIO 101 with a minimum grade of "C"
 - High School Chemistry or CHM 125 (or CHM 101) with a minimum grade of "C"
 - High School Algebra or MTH 3 with a minimum grade of "C"
5. Completion of Application for Admission to the Associate Degree Nursing Program
6. Completion of the Nurse Entrance Test (NET).
7. Official Transcripts of all post secondary courses attempted or completed forwarded to the Office of Admissions if credits are to be considered for degree completion.
8. Evidence of computer competency (see page 48).

Program Requirements

Failure to meet requirements will be cause for administrative withdrawal of the student from the nursing program.

1. Physical History and Examination – upon admission to the ADN Program. All applicants must be free of any physical and/or mental condition which might adversely affect their performance as nurses.
2. Completion of all required immunizations.
3. CPR Certification as a Health Care Provider (to include Adult, Infant, and Child).
4. Professional nursing student liability insurance.
5. Completion of criminal background search as required and to the satisfaction of affiliating clinical agencies.
6. Completion of 69 credits with a minimum grade of "C" in all general education and nursing courses including a required preceptorship during NUR 222.

Associate in Applied Science Degree (cont.)

7. Transportation to and from the College and agencies used for clinical experiences.
8. All fees charged for required testing, liability insurance, uniforms, books, and criminal background search.
9. Strict adherence to attendance and performance policies for classroom and clinical courses.
10. Sign an agreement which releases all clinical agencies and their employees, Lord Fairfax Community College, the Virginia Community College System, and the Commonwealth of Virginia from any liability for any injury or death to the student or damage to her/his property arising out of agreement of use of facilities associated with the nursing program.

Accreditation

The Associate Degree Program in Nursing is approved by the State Board of Community Colleges and the State Council of Higher Education in Virginia and the Virginia Board of Nursing.

Course #	Title	Credits
First Semester		
BIO 141	Anatomy and Physiology I	4
ENG 111	College Composition I	3
NUR 100	Introduction to Nursing and Health ¹	2
NUR 105	Nursing Skills ¹	3
PSY 230	Developmental Psychology	3
STD 101	Orientation to the Health Professions ²	1
Total		16

Second Semester

BIO 142	Anatomy and Physiology II	4
HLT 130	Nutrition and Diet Therapy	1
NUR 108	Nursing Principles and Concepts I	5
NUR 136	Principles of Pharmacology	1
SOC 200	Principles of Sociology	3
SPD 100/110	Principles of Public Speaking	3
Total		17

Third Semester

BIO 150	Introduction to Microbiology	4
NUR 180	Essentials of Maternal/Newborn Nursing	3
NUR 203	Introduction to Mental Health Nursing	2
PHI 220	Ethics	3
Total		12

Fourth Semester

NUR 221	Second Level Nursing Principles & Concepts I	9
NUR 226	Health Assessment	2
PED	Elective	1
Total		12

Fifth Semester

NUR 222	Second Level Nursing Prin. and Conc. II	9
NUR 254	Dimensions of Professional Nursing	1
NUR 255	Nursing Organizations and Management	2
Total		12

Program Total **69**

¹Upon Successful completion of requirements, Certified Nurse Aides may substitute NUR 110 Introduction to Nursing and Health (2 credits) for partial fulfillment of NUR 100 and NUR 105.

²STD 100 College Success Skills may be substituted for STD 101.

³The following courses may be completed prior to acceptance into the Nursing Program: STD 101, ENG 111, BIO 141/142, PSY 230, HLT 130, SOC 200, SPD 100, BIO 150, PHI 220, PED elective.

Special Status Students

Transitional programs have been developed to provide students with prior earned credit in the health professions an opportunity to enter the ADN program with advanced standing.

Certified Nurse Aide (CNA)

Students who are CNAs in the Commonwealth of Virginia, and who completed their CNA education at Lord Fairfax Community College (NUR 27) will need to take two additional credits: NUR 110 Introduction to Nursing and Health. Upon successful completion of this requirement, the CNA may substitute these credits for partial fulfillment of NUR 105 Nursing Skills.

Students who are CNAs in the Commonwealth of Virginia who did not complete their CNA education at LFCC will be required to successfully complete a written and practical examination provided by LFCC in order to demonstrate knowledge and skill proficiency in addition to certification. Following successful completion of this requirement, the credit substitution described above may be approved.

Licensed Practical Nurse (LPN)

Students who are LPNs in the Commonwealth of Virginia and who completed their Practical Nursing education at Lord Fairfax Community College, may be granted admission to the ADN program at the level of the Fourth Semester. All general education requirements of the ADN program must be completed prior to admission to the program, along with satisfactory performance on the LPN GAP test.

Students who are LPNs in the Commonwealth of Virginia who did not complete their Practical Nursing education at LFCC will be required to complete NUR 115 LPN transition (2 credits) during the summer semester prior to enrollment in the fourth semester of the ADN program (grade C or better required).

Note that the LPN license must be achieved and in good standing with the Virginia Board of Nursing. PN graduates who have not successfully completed the NCLEX-PN are not eligible for this program.

Length:

Five semesters

Purpose:

Lord Fairfax Community College (LFCC) is a cooperating institution for the Virginia Western Community College (VWCC) two-year associate degree program in Dental Hygiene (DNH). Potential students are encouraged to apply to LFCC and enroll in related course work (or developmental studies courses as needed) prior to beginning Dental Hygiene studies. A student may complete this Associate in Applied Science Degree without moving from the Lord Fairfax area. After a student is accepted by VWCC into the program, core courses in DNH are offered at LFCC via distance learning technology, while clinical experiences are conducted on the Middletown campus. The contact person at Virginia Western Community College is Pam Woody, Health Information Specialist, telephone number 540.857.7307. To request a package of detailed information about this program, please call Pam Woody or the Dental Hygiene office at LFCC 800.906.5322. Information can also be obtained from the VWCC website at www.vw.vccs.edu/health/denthome.htm.

Curriculum Admissions Standards

Applicants to the Dental Hygiene Program must have completed the following:

Four Units of high school English

One unit each of high school or college biology and chemistry

Two units of high school or college social studies

Algebra II or college equivalent

****A grade of C or better is necessary in required high school/college units of math and science.****

The applicant's high school or college (if applicable) cumulative grade point average (GPA) must be at least 2.5 and is based on 12 credit hours of college credit in a 12-month timeframe. The GPA is determined at the end of fall semester. Priority consideration will be given to applicants with a cumulative high school and/or college grade point average of 3.0 or above.

Applicants who are currently enrolled in high school or who have completed fewer than 45 quarter hours or 30 semester hours of college work must submit SAT or ACT scores. Priority consideration will be given to applicants with a combined (total) score of 900 on the SAT or a composite score of 18 or above on the ACT. Applicants who graduated from high school more than five (5) years prior to date of appli-

cation who have not attempted any college work will not be required to submit SAT/ACT scores. All applicants must take the HOBET Test.

Admission Procedures

The Dental Hygiene Program is open to qualified male or female applicants. Early application is advisable due to the limited number of positions in the program. Admission is offered to the VWCC-Lord Fairfax joint venture distance program site in Middletown on a biennial basis during even-numbered years. Deadline for submitting complete application materials is February 15 for the upcoming academic year. If the number of qualified applicants falls below the maximum enrollment, the application deadline may be extended. Applicants should be aware that meeting the curriculum admission standards does not guarantee program admission. Applicants will be notified in writing of the action taken by the Dental Hygiene Admissions Committee.

To qualify for consideration by the Dental Hygiene Admissions Committee, the applicant must submit a complete application which includes the following: application to the college, Dental Hygiene Program Application, official transcripts of all high school and college work, official record showing completion of GED, SAT/ACT scores (if applicable as noted above), results of the HOBET Test (Health Occupations Basic Entrance Test) taken at the student's expense and non-refundable, and two letters of recommendation from employers/former teachers using the format provided by VWCC. It is mandatory that applicants submit official high school transcripts, GED, and all official college transcripts in one envelope to the VWCC Health Technology Information Office with the VWCC application. The Dental Hygiene Admissions Advising Form will be completed upon receipt of the completed academic file by letter or office visit. Qualified applicants must be interviewed by the Dental Hygiene faculty.

It is strongly recommended that applicants with no dental assisting experience observe a dental hygienist for a minimum of one full workday to obtain a realistic view of the profession.

Essential Dental Hygiene Functions

To successfully complete the clinical component of the Program, the student must be able to perform all of the essential functions of a dental hygienist:

1. Communicate satisfactorily with clients, physicians, peers, family members and the health care team.
2. See and hear adequately to note slight changes in the client's condition.

3. Hear adequately to perceive and interpret various equipment signals.
4. Demonstrate adequate eye/hand coordination for dexterity in manipulation of hand instruments and other equipment used in clinical practice.
5. Use hands for fine manipulation.
6. Manage the care of a client in a sudden emergency, including one-man CPR when necessary.
7. Possess the visual acuity to correctly read hand-written orders, medication records, chart contents, and provide safety for clients.
8. Read, comprehend and apply knowledge from complex science and dental science texts.

Despite the foregoing, a qualified person with a disability who can perform these essential functions with reasonable accommodation will be considered for admission along with other qualified applicants.

Clinical Environment

The applicants should realize that student dental hygienists are, by nature of the profession, exposed regularly to highly stressful and demanding situations, difficult clients, and organizational and time pressures in a variety of client care settings. In addition, student and practicing dental hygienists are routinely exposed to blood and body fluids.

Academic Environment

The academic environment is focused heavily on the sciences. Extensive reading is required in all classes, and courses are science based and academically challenging. Ability to apply knowledge and concepts across courses and the curriculum is necessary to master material. The ability to read and understand complex/scientific material is crucial to success, as is the ability to analyze written matter and express yourself coherently in written form. Applicants with weaknesses in reading, vocabulary, written expression and conceptualization are strongly urged to strengthen these areas prior to seeking admission. It is recommended that a Medical Terminology course be taken prior to admission.

Student Responsibilities After Acceptance Into the Program

1. Admission is contingent upon a satisfactory medical and dental examination indicating good general health. The medical examination must include evidence of a PPD skin test (or chest x-ray), and serology for the Hepatitis B surface antigen and antibody. The Heptavax vaccine is strongly recommended. All documentation must be submitted to the Dental Hygiene Program Head no later than

August 1 or the student will be dropped from the program at that time.

2. Current certification in Healthcare Provider cardiopulmonary resuscitation (CPR) is required for both years of the program. No substitutions are accepted. Students are responsible for providing their own malpractice insurance coverage during the two years of the program. Insurance is available for purchase after admission to the program. This policy is non-refundable. All documentation must be submitted to the Dental Hygiene Program head no later than August 1 or the student will be dropped from the program at that time.
3. All students admitted to the Dental Hygiene Program must attend dental hygiene orientation, register for all classes, and pay their tuition prior to August 1. All students are required to purchase the instrument and supply kit, pay a lab usage fee, and are expected to order uniforms at orientation. If a student withdraws from the program, the kit is non-refundable.
4. Students admitted to the program with academic contingencies in biology, chemistry, or algebra must provide documentation of satisfactory completion of the contingency prior to the beginning of fall classes. Failure to meet a stated contingency will result in admission being rescinded.
5. All students admitted to the program without prior experience in the dental field (chairside dental assisting) are required to observe dental and dental hygiene procedures in the dental office of their choice. The observation experience must be completed by August 1. Assistance in locating practitioners willing to provide observation experience may be provided by the Dental Hygiene Program upon admission.
6. Students in the program are responsible for transportation to and from agencies utilized for clinical and community health rotation experiences.
7. Drug and alcohol screening is required prior to rotating through certain clinical enrichment sites. Positive screenings may jeopardize continuance in the program. Costs of the tests are the responsibility of the student.

Policy for Academic Retention

Continuation in the program: Satisfactory progress is demonstrated by achieving a grade of "C" or better in required Dental Hygiene and Natural Science courses. Students must satisfactorily complete BIO 141, 142, and BIO 150 with a grade of "C" or above before progressing to the second year of the program. Students must complete required Dental

Hygiene courses in sequence. Should a student receive a grade of "D" in any dental hygiene educational course, a didactic component of a clinical or laboratory course, or the laboratory component of a preclinical or didactic course, the student will be dismissed from the program and must reapply for admission. Should a student receive a grade of "D" in the clinical component of DNH 142, 190, 244, or 245 due to failure to meet minimum clinical requirements for the semester, the student may progress to the next semester of the program with faculty approval, and will have additional patient requirements for graduation added. Two consecutive D's in these clinical courses may result in the student being dismissed from the program.

Readmission to the program will be based upon academic performance and adherence to the program policies regarding attendance and professionalism, and will be contingent upon available laboratory/clinical space. Readmission is not guaranteed. Students who have been dropped must submit a written application for readmission to the program head no later than January 1 for the following fall semester, no later than May 15 for the following spring semester, and no later than August 15 for the following summer session. The Program Head will present the readmission request to the faculty for consideration. Students applying for readmission will be notified of their admission status in writing.

Students readmitted to the program are eligible to repeat a course only once, and a dental hygiene course must be repeated during the semester in which it is offered. The student may not continue with other required dental hygiene courses until the course is repeated. Students earning a grade of "F" in any dental hygiene course will be dropped from



the program and are ineligible for readmission unless there are extenuating circumstances (serious illness, death of an immediate family member).

Course #	Title	Credits
First Semester		
BIO 141	Human Anatomy and Physiology I ¹	4
DNH 111	Oral Anatomy	2
DNH 115	Histology/Head and Neck Anatomy	3
DNH 120	Management of Emergencies	2
DNH 141	Dental Hygiene I	5
STD 100	College Success Skills	1
	Total	17
Second Semester		
BIO 142	Human Anatomy and Physiology II	4
DNH 216	Pharmacology	2
DNH 142	Dental Hygiene II	5
DNH 145	General and Oral Pathology	2
DNH 146	Periodontics for the Dental Hygienist	2
ENG 111	College Composition	3
	Total	18
Third Semester		
BIO 150	Microbiology	4
DNH 130	Oral Radiography for the Dental Hygienist	2
DNH 190	Coordinated Practice	3
DNH 150	Nutrition	2
	Total	11
Fourth Semester		
DNH 214	Practical Materials for Dental Hygiene	2
DNH 226	Public Health Dental Hygiene I	2
DNH 244	Dental Hygiene IV	5
PSY 230	Developmental Psychology	3
	Total	12
Fifth Semester		
DNH 227	Public Health Dental Hygiene II	1
DNH 230	Office Practice and Ethics	1
DNH 245	Dental Hygiene V	5
	Approved ITE/CSC coursework ⁴	1
	Humanities Elective	3
SPD 100/110	Principles of Public Speaking	3
	Total	14
	Program Total	72

¹NAS 161 – Health Science I may be substituted for BIO 141

²NAS 162 – Health Science II may be substituted for BIO 142.

³PSY 231 and PSY 232 may be substituted for PSY 230

⁴ITE 115 or CSC 155 will satisfy this requirement. Students are required to 1) complete a computer course such as CSC 155, ITE 115, or equivalent or 2) demonstrate proficiency in using a windows based operating system along with word processing, spreadsheet, database management, presentation and communication software by passing a LFCC Computer Competency exam (see page 48).

Students eligible for Option 2 may select any appropriate elective. Please consult your academic advisor.

medical billing/coding

Certificate

Length:

Two semesters (one-year) program

Purpose:

With an increasing demand for medical insurance billing and coding workers in professional offices in Virginia, this certificate will prepare individuals for full-time employment upon completion of the program. The program is beneficial for individuals who are seeking first-time employment, career advancement, or national coding certification.

Occupational Objectives:

Medical Billing Assistant, Medical Coder, Medical Insurance Specialist

Program Requirements:

The program prepares the student to fill medical billing and coding positions and provides fundamental knowledge and skills associated with insurance billing and coding. The curriculum includes courses in college composition, coding and reimbursement, and medical office bookkeeping and insurance. Upon satisfactory completion of the program, the graduate will be awarded a Certificate in Medical Billing/Coding.

Course #	Title	Credits
First Semester		
AST 102	Keyboarding II ¹ or	3
AST 141	Word Processing I ²	3
ENG 111	College Composition I	3
HIT 111	Medical Terminology I	3
HIT 253	Health Records Coding ³	4
MDA 206	Medical Office Bookkeeping and Insurance	4
STD 100	College Success Skills	1
Total		18
Second Semester		
AST 205	Business Communication	3
AST 206	Professional Development ¹	3
HIT 112	Medical Terminology II ⁴	3
HIT 254	Advanced Coding & Reimbursement ⁵	3
PHI 227	Bio-Medical Ethics	3
PNE 155	Body Structure and Function	3
Total		18
Program Total		36

¹Keyboarding skill is required. Co-Requisite: AST 101 or equivalent skill.

²Prerequisite: AST 102 or equivalent skill.

³Prerequisite: HIT 111 and MDA 206

⁴Prerequisite: HIT 111

⁵Prerequisite: HIT 253

Note: Internship opportunities and a national certification exam will be available to certificate students/graduates



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medical secretary/transcription

Certificate

Length:

Two semesters (one-year) program.

Purpose:

With an increasing demand for medical office assistants in Virginia, this certificate will prepare individuals for full-time employment upon completion of the community college program. The program is beneficial for individuals who are seeking first-time employment, career advancement, or national certification.

Occupational Objectives:

Medical Office Assistant, Medical Secretary, Ward Clerk, Medical Transcription, Medical Reception.

Program Requirements:

This program prepares the student to fill medical secretary, medical office assistant, and medical transcription positions and provides fundamental knowledge and skills associated with these medical careers. The curriculum includes courses in transcription, office technology, body structure and function, and bio-ethics. Upon satisfactory completion of the program, the graduate is awarded a Certificate in Medical Secretary/Transcription.

Course#	Title	Credits
First Semester		
AST 215	Medical Keyboarding	
	or	
AST 102	Keyboarding II ¹	3
AST 271	Medical Office Procedures I ²	
	or	
AST 243	Office Administration I	3
ENG 111	College Composition I	3
HIT 111	Medical Terminology I	3
PNE 155	Body Structure and Function	3
PHI 227	Bio-Medical Ethics	3
STD 100	College Success Skills	1
	Total	19
Second Semester		
AST 107	Editing and Proofreading Skills ¹	3
AST 141	Word Processing I ²	3
AST 206	Professional Development	3
AST 245	Medical Machine Transcription ³	3
HIT 112	Medical Terminology II ³	3
HIT 230	Information Systems and Technology in Health Care	
	or	
AST 230	Introduction to Office Technology	3
	Total	18
	Program Total	37

¹ Prerequisite: AST 101 or equivalent skill.

² Prerequisite: AST 102 or equivalent skill.

³ Prerequisite: HIT 111

Note: Internship opportunities and a national certification exam will be available to certificate students/graduates.

Length:

Three semesters (one year)

Purpose:

The Practical Nursing curriculum is designed to prepare beginning practitioners with the knowledge and skill to care for patients of all age groups and to qualify as contributing members of the health care team. Upon completion of the program, graduates are eligible to apply to take the National Council Licensure Examination (NCLEX-PN).

Occupational Objectives:

Opportunities for the Licensed Practical Nurse (LPN) include employment in hospitals, nursing homes, clinics, day-care centers, Civil Service, primary care offices, rehabilitation facilities, industry, the military, home health, and private duty nursing.

Practical Nursing is an academically rigorous program. The Practical Nursing Program is open to men and women who provide evidence of interest, motivation, and aptitude in the area of health care. Students shall be selected on the basis of established criteria and without regard to age, race, creed, sex, or national origin. Students with disabilities who meet the admission requirements, pass the physical/mental exam, and submit the physical form signed by the physician stating that they are able to perform as practical nurses in the clinical setting are eligible for admission. It is the responsibility of the student to meet the physical/mental requirements for state licensure.

Admission Requirements:

In addition to the general admission requirements established for the College, entry into the Practical Nursing program requires:

1. Completion of specific Practical Nursing program admission requirements.
2. High School diploma or GED – official transcripts must be forwarded to the Office of Admission.
3. Completion of appropriate placement tests in reading, writing, and mathematics (if needed) offered by the College, and any recommended developmental coursework.
4. Completion of the Nurse Entrance Test (NET).
5. Evidence of computer competency (see page 48)

All admission requirements must be completed prior to the selection process. In all cases, the recommendation of the admission committee is the final determinant for admission to the Practical Nursing program.

The nursing law of Virginia addresses criteria for application for licensure. The Virginia Board of Nursing has the power to deny opportunity to procure license through testing if the applicant has willfully committed a felony/misdemeanor under the laws of the Commonwealth of Virginia or of the United States. Any student entering the nursing program who has committed any illegal offenses other than minor traffic violations is encouraged to discuss these matters with the Virginia Board of Nursing for clarification prior to admission. Some health care facilities may not employ individuals who have committed certain criminal acts and may conduct criminal background checks before hiring potential employees.

Program Requirements:

1. Completion of a physical examination and required immunization. Applicants must be free of any physical and/or mental condition which might adversely affect their performance as nurses.
2. Completion of all required immunizations.
3. Current certification in CPR (American Heart Association CPR for Healthcare Provider or equivalent to include adult, infant and child).
4. Purchase student professional liability insurance.
5. Completion of criminal background search as required and to the satisfaction of affiliating clinical agencies.
6. Complete a minimum of 50 credits with a "C" average or better in all courses.
7. Demonstrate satisfactory attendance and performance in the nursing clinical areas.
8. Be responsible for transportation to classes and to agencies used for clinical experience.
9. All fees charged for required testing, liability insurance, uniforms, books, and criminal background search.
10. Sign an agreement which releases all clinical agencies and their employees, Lord Fairfax Community College, the Virginia Community College System, and the State of Virginia from any liability for any injury or death to the student or damage to her/his property arising out of agreement or use of facilities associated with the Practical Nursing program.

Special Accreditation Status

The Practical Nursing program is approved by the Virginia Community College System and the Virginia Board of Nursing.

Course#	Title	Credits
First Semester		
ENG 111	College Composition I	3
PNE 155	Body Structure and Function	3
PNE 161	Nursing in Health Changes I	6
PNE 174	Applied Pharmacology for Nurses	2
PSY 230	Developmental Psychology	3
STD 101	Orientation to Health Professions	1
Total		18
Second Semester		
HLT 130	Nutrition and Diet Therapy	1
PED	PED Elective	1
PNE 135	Maternal/Child Health Nursing	5
PNE 162	Nursing in Health Changes II	11
Total		18
Third Semester		
PNE 120	Introduction to Nursing Process	1
PNE 145	Trends in Practical Nursing	1
PNE 158	Mental Health/Psychiatric Nursing	1
PNE 164	Nursing in Health Changes IV	11
Total		14
Program Total		50

¹STD 100 College Success Skills may be substituted for STD 101.

²The following courses may be completed prior to acceptance into the Practical Nursing Program: STD 101, ENG 111, PNE 155, PSY 230, HLT 130, PED elective.

Special Status Students

Certified Nurse Aide (CNA) to Practical Nursing Transition Program

A transitional program has been developed to provide students with prior earned credit in the health professions an opportunity to enter the Practical Nursing Program with advanced standing.

Students who are CNAs in the Commonwealth of Virginia, and who completed their CNA education at Lord Fairfax Community College (NUR 27) will need to take three additional credits: PNE 141 Nursing Skills I. Upon successful completion of this requirement, the CNA may substitute these credits for partial fulfillment of PNE 161 Nursing in Health Changes I.

Students who are CNAs in the Commonwealth of Virginia who did not complete their CNA education at LFCC will be required to successfully complete a written and practical examination provided by LFCC in order to demonstrate knowledge and skill proficiency in addition to Certification. Following successful completion of this requirement, the credit substitution described above may be approved.

Length:

Three semesters (one year)

Purpose:

The Surgical Technology Program of Lord Fairfax Community College is provided through a partnership with Piedmont Virginia Community College (PVCC), in cooperation with the Winchester Medical Center and other area hospitals, is a twelve-month certificate program. The program is academically rigorous and offers educational components in the classroom and clinical laboratory environment.

Surgical Technologists are integral members of the surgical team who work closely with surgeons, anesthesiologists, registered nurses, and other personnel delivering patient care before, during, and after surgery. Upon completion of the Surgical Technology Program, the graduate will demonstrate the following entry-level competencies:

- Exhibit professional behaviors and skills in the surgical environment.
- Utilize effective verbal and written communication.
- Exhibit caring interventions to the client and members of the healthcare team.
- Participate in collaborative care.

Admission Requirements:

In addition to the general admission requirements established for the college, entry into the Surgical Technology Program requires:

1. Completion of both LFCC and PVCC Application for Admission.
2. HS Diploma or GED—Official Transcripts must be forwarded to the Office of Admissions and Records at PVCC.
3. Completion of LFCC Placement Tests in mathematics, reading and writing (if required), and any recommended developmental coursework.
4. Completion of High School Chemistry, or CHM 101, with a grade of “C” or better.
5. Completion of PVCC Surgical Technology Program Application.
6. Completion of an Operating Room observational experience as scheduled by the Surgical Technology Program Head.

Admission to the Surgical Technology Program is on a selective basis. Selection of students is based upon:

1. Completion of all Admission Requirements listed above.
2. Consideration of the following factors in order of priority:

For applicants with previous college experience:

- a. Surgical Technology curricular GPA (applicants with curricular GPA below 2.0 will not be considered)
- b. Science GPA (BIO 141, BIO 142, BIO 150—applicants with curricular GPA below 2.0 will not be considered)
- c. Number of curricular courses (including science courses) completed.

For applicants with no previous college experience, High School graduates:

- a. GPA (applicants with a High School GPA below 2.0 will not be considered)
- b. Science GPA (applicants with a High School GPA below 2.0 will not be considered)

For applicants with no previous college experience, GED holders:

- a. Overall GED test score (applicants with an overall score of less than 58 will not be considered)
- b. Science GED score (applicants with a science score of less than 58 will not be considered)

Applicants with High School GPAs below 2.0, or GED test scores below 58, are encouraged to enroll in the curricular general education courses to demonstrate ability to satisfactorily complete college level work. These applicants will then be evaluated as “applicants with previous college work.”

All admission requirements must be completed prior to the selection process. In all cases, the recommendation of the Admission Committee is the final determinant for admission to the Surgical Technology Program.

surgical technology

Certificate

Program Requirements:

1. Completion of a physical examination for Surgical Technology students, including an eye examination and required immunizations. Students must be free of any physical and/or mental condition that might adversely affect their performance as surgical technologists. (Forms are mailed with Letter of Acceptance.)
2. Demonstrate satisfactory attendance and performance in the classroom and clinical areas.
3. Be responsible for transportation to classes and to agencies used for clinical experience.
4. Completion of all course requirements with a "C" average or better.
5. Courses are to be completed sequentially.
6. Signed release and receipt forms as required throughout the program.

Accreditation Status

The Surgical Technology Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

Course #	Title	Credits
First Semester		
HIT 111	Medical Terminology	3
HLT 105	CPR for Healthcare Providers	1
BIO 141	Anatomy & Physiology I	4
NUR 140	Introduction to Surgical Care	2
NUR 141	Fundamentals of Surgical Care I	3
NUR 142	Fundamentals of Surgical Care II	3
Total		16
Second Semester		
BIO 142	Anatomy & Physiology II	4
HLT 250	Pharmacology	2
NUR 209	Surgical Procedures I	4
NUR 210	Surgical Procedures II	4
STD 101	Orientation to Health Professions	1
Total		15
Third Semester		
ENG 111	College Composition I	3
BIO 150	Microbiology	4
NUR 299	Clinical Practicum	6
Total		13
Program Total		44



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career studies certificates

Certificate

Emergency Medical Technology

Program Head: Kathleen Wotring

EMT 111	Emergency Medical Technology I	3
EMT 112	Emergency Medical Technology II	3
EMT 225	Clinical Experiences for Cardiac Care Technician	3
EMT 226	Dysrhythmia Recognition and Management	3
EMT 231	Paramedic Procedures I	5
EMT 232	Paramedic Procedures II	6
EMT 235	Clinical Experiences for the Paramedic	4
	Total	27

This curriculum may be completed in two or three semesters at the Fauquier Campus of Lord Fairfax Community College.

Emergency Medical Training

Program Head: Kathleen Wotring

EMT 111	Emergency Medical Technology I	3
EMT 112	Emergency Medical Technology II	3
	Elective	3
	Total	9

Nursing Assistant

Program Head: Prof. Betty Ward

The Nursing Assistant curriculum is designed to prepare individuals with the knowledge and skills to care for patients of all age groups and to qualify as contributing members of the health care team. Upon completion of the program, graduates are eligible to apply to take to Nurse Aide Competency Evaluation Examination (NACEP).

NUR 27	Nurse Aide	3-4
	Total	3-4

Psychological Services Aide-Basic

Program Head: Nancy Lloyd

HMS 121	Basic Counseling Skills	3
HMS 297	Cooperative Education in Human Services	3
MEN 110	Introduction to Abnormal Psychology	3
PSY 205	Personal Conflict and Crisis Management	3
	Total	12

**agriculture business /
agriculture business management
natural resources and horticulture
degrees and certificates**



- Associate in Applied Science Degree in
Agriculture Business/Agriculture Business Management
- Associate in Applied Science Degree in Agriculture Business,
Horticulture Specialization
- Associate in Applied Science Degree in Agriculture Business,
Natural Resources Management Specialization
- Certificate in Nursery and Landscape Management
- Career Studies Certificate, Floral Design
and Interior Plantscaping
- Career Studies Certificate, Greenhouse Production
- Career Studies Certificate, Horse Science
- Career Studies Certificate, Veterinary Assisting

agricultural business/agricultural business management

Associate in Applied Science Degree

Length:

Four semesters (two-year) program

Purpose:

The Agricultural Business industry is a vital occupational field closely related to agricultural production. For each individual employed in agricultural production, three persons are required in related Agri-Business organizations. In Virginia alone, approximately 100,000 persons are employed in Agri-Business, and Agriculture is a \$4 billion-a-year industry. Agri-Business services require specialized career personnel trained in the techniques of advertising, merchandising, personnel management, selling, and retailing as applied to the agricultural industry. This program is designed for persons preparing for career opportunities within the wide variety of managerial sales and service areas of American agriculture.

Occupational Objectives:

Agricultural Supply Store Manager, Agriculture Equipment and Supply Sales, Agricultural Produce Inspector, Agri-Business Office Manager, Farm Credit Agency Representative, Agricultural Products Warehouse Manager, Soil Conservation Technician.

Program Requirements:

The curriculum integrates courses in agriculture, business, horticulture and related areas, general education, and electives. Students must consult with their faculty advisors in planning their programs and selecting electives. Upon satisfactory completion of the four-semester program, the graduate is awarded the Associate in Applied Science Degree in Agricultural Business/Agricultural Business Management.

Transfer opportunities for Associate in Applied Science degrees, if existing, are very specific in nature. Students enrolling in an Applied Science degree with plans to transfer should explore opportunities with their faculty advisor.

Course #	Title	Credits
First Semester		
BIO 110	General Botany	4
BUS	Approved BUS Elective ¹	3
ENG 111	College Composition I	3
ITE 115	Basic Computer Literacy	4
STD 100	College Success Skills	1
Total		15
Second Semester		
AGR 226	Agricultural Chemicals	3
BIO 270	General Ecology	4
BUS	Approved BUS Elective ¹	3
ENG 112	College Composition II	3
PED/HLT	Physical Education (or Health)	2
	Approved Elective ¹	3
Total		18
Third Semester		
AGR 208	Insect Control	3
BUS	Approved BUS Elective ¹	3
MTH	Approved MTH Elective ³	3
	Approved Social Science Elective ²	3
	Approved Elective ¹	3
Total		15
Fourth Semester		
AGR 227	Pathology of Plants and Animals	3
BUS 165	Small Business Management	3
FOR 136	Habitat & Food Plant Identification	3
SPD 100/110	Principles of Public Speaking	3
	Approved Social Science Elective ²	3
	Approved Elective ¹	3
Total		18
Program Total		66

¹ Requires approval of program advisor.

² Students may select Social Science electives from the approved list found on page 47.

³ Approved math electives are MTH 120 or higher for AAS Degree. MTH 163 or higher for transfer; however students should contact the transfer counselor at their target four-year university.

Horticulture Specialization Associate in Applied Science Degree

Length:

Four semesters (two-year) program

Purpose:

The Horticulture program offers technical training in the production of fruits, vegetables, flowers, nursery crops, and in landscape design and maintenance. It provides a basic knowledge of plant growth and development and of techniques employed in the production and utilization of horticultural crops. The students may develop an emphasis in floriculture (flower production and retail floristry), fruits and vegetables, landscape horticulture, and nursery management.

Occupational Objectives:

Floral Designer, Greenhouse Grower, Grounds Supervisor, Grounds Keeper, Landscape Planner, Landscape Technician, Municipal & Recreation Department Maintenance Technician, Cemetery Grounds Supervisor, Turfgrass Maintenance Technician, Nursery Manager Trainee, Greenhouse Manager Trainee, Greenhouse Technician, Nursery Salesperson, Greenhouse Salesperson, Plant Propagator, Nursery Technician, Retail Garden Center Salesperson.

Program Requirements:

The curriculum integrates courses in biology, entomology, pathology, nursery management, greenhouse management, turf management and related areas, general education, and electives. Students are advised to follow the curriculum exactly as outlined in the College catalog and must consult with their faculty advisor to plan their program and select electives. Upon satisfactory completion of the four-semester program, the graduate is awarded the Associate in Applied Science Degree in Agricultural Business with a Horticulture Specialization.

For Students Planning to Transfer:

Transfer opportunities for Associate of Applied Science degrees are very specific in nature. Students enrolling in an Applied Science degree with plans to transfer should explore opportunities with their faculty advisor.

Course #	Title	Credits
First Semester		
BIO 110	General Botany	4
ENG 111	College Composition I	3
HRT 115	Plant Propagation	3
ITE 115	Basic Computer Literacy	4
	Approved Math Elective ¹	3
STD 100	College Success Skills	1
Total		18
Second Semester		
AGR 226	Agricultural Chemicals	3
BIO 270	General Ecology	4
ENG 112	College Composition II	3
HRT 150	Theory of Landscape Design	3
HRT 246	Herbaceous Plants	3
PED/HLT	Physical Education (or Health)	2
Total		18
Third Semester		
AGR 208	Insect Control	3
	Approved Business Elective ²	3
	Approved HRT Elective	3
	Approved Social Science Elective ³	3
SPD 100/110	Principles of Public Speaking	3
Total		15
Fourth Semester		
AGR 227	Pathology of Plants and Animals	3
BUS 165	Small Business Management	3
FOR 136	Habitat & Food Plant Identification	3
	Approved HRT Elective	3
	Approved Social Science Elective ³	3
Total		15
Program Total		66

¹Approved math electives are MTH 120 or higher for AAS Degree. MTH 163 or higher for transfer.

²BUS, MGT, MKT, or ACC courses satisfy this requirement.

³Students may select social science electives from the approved list on page 47.

Natural Resources Management Specialization

Associate in Applied Science Degree

Length:

Four semesters (two-year) program

Purpose:

The popularity and demand for adequately planned, managed, and legally regulated public and private outdoor recreational facilities is increasing rapidly. Established and projected National and State Parks and Forests, game management areas, campgrounds, fisheries, wilderness, and hunting areas must be staffed by well-trained, specialized career personnel. Natural Resources Management is designed as a two-track career program but transfer is possible with special faculty advising. Students will take courses emphasizing recreation and wildlife management. This program is designed for persons who seek career opportunities within the public service or related positions in the private sector.

Occupational Objectives:

Park Ranger, Park Naturalist, Game Warden, Wildlife Biologist Assistant, Wildlife Refuge Manager, Park Technician, Hunting and Fishing Preserve Manager, Outdoor Guide, Range Management Assistant, Campground Manager.

Program Requirements:

The curriculum integrates courses in recreation, management, forest and wildlife management, law enforcement, science and related areas, general education, and selected electives. Students should also possess a willingness to participate in vigorous outdoor activities in rural and wilderness settings. Many of the labs are held off-campus at the Nineveh Bird Banding Station, George Thompson Wildlife Management Area, Shenandoah National Park and Blandy State Arboretum. There will be extended field activities at the LFCC biological field station in an actual working research project in Back Bay National Wildlife Refuge. Students will be responsible for travel, food, accommodations and equipment expenses (hip waders, binoculars). Students must consult with their faculty advisors to plan their program track and select electives. It is necessary for the student to follow the curriculum as outlined in the catalog for successful completion of the degree within two years. Upon satisfactory completion of the program, the graduate will be awarded the Associate in Applied Science Degree in Agricultural Business with a Natural Resources Management Specialization.

For Students Planning To Transfer:

Transfer opportunities for Associate of Applied Science degrees, if existing, are very specific in nature. Students planning to transfer to a four-year institution must work closely with their faculty advisor for appropriate transfer course substitutions. Articulation agreements exist with several four-year institutions.

Course #	Title	Credits
First Semester		
BIO 110	General Botany	4
BIO 161	Field Biology of Animals I	4
ENG 111	College Composition I	3
ITE 115	Basic Computer Literacy	4
STD 100	College Success Skills	1
Total		16
Second Semester		
AGR 226	Agricultural Chemicals	3
BIO 162	Field Biology of Animals II	4
BIO 270	General Ecology	4
ENG 112	College Composition II	3
PED/HLT	Physical Education (or Health)	2
Total		16
Third Semester		
AGR 208	Insect Control	3
FOR 135	Wildlife and Fisheries Management	4
MTH	Approved MTH Elective ²	3
	Approved Social Science Elective ¹	3
	Approved Elective ²	3
Total		16
Fourth Semester		
AGR 227	Pathology of Plants and Animals	3
BUS 165	Small Business Management	3
FOR 136	Habitat and Food Plant Identification	3
SPD 100/110	Principles of Public Speaking	3
	Approved Social Science Elective ¹	3
	Approved Elective ²	3
Total		18
Program Total		66

¹ Students may select Social Science electives from the approved list found on page 47.

² Requires approval of program advisor.

nursery and landscape management

Certificate

Length:

Three semesters (one-year) program

Purpose:

As this region experiences increased growth, there is a corresponding increase in the demand for certified nursery and landscape personnel. This certificate will prepare persons for employment with nurseries, landscape maintenance and management companies, as well as golf courses.

Occupational Objectives:

Landscape Foreman, Design Specialist, Nursery Manager, Groundskeeper, Grounds Maintenance Supervisor, Landscape Technician, Nursery Sales, Nursery Technician.

Program Requirements:

The program is designed to prepare the student to fill nursery and landscape positions, providing the fundamental knowledge and skills associated with this work. The curriculum includes courses in plant identification, plant care such as pruning and fertilization, landscape planning, work scheduling, landscape design and implementation. Upon satisfactory completion of the program, the graduate will receive the Certificate in Nursery and Landscape Management.

Course #	Title	Credits
First Semester		
AGR 208	Insect Control	3
ENG 115	Technical Writing	3
HRT 115	Plant Propagation	3
HRT 150	Theory of Landscape Design	3
STD 100	Orientation	1
Total		13
Second Semester		
AGR 226	Agricultural Chemicals	3
AGR 227	Pathology of Plants and Animals	3
HRT 246	Herbaceous Plants	3
HRT 259	Arboriculture	3
MTH 120	Introduction to Mathematics	3
Total		15
Third Semester		
HRT 201	Landscape Plants I	3
HRT 202	Landscape Plants II	3
Total		6
Program Total		34



YOUR FUTURE. OUR FOCUS.

career studies certificates

Certificate

Floral Design and Interior Plantscaping

Program Head: Prof. Heidi Clark

HRT 150	Theory of Landscape Design	3
HRT 246	Herbaceous Plants	3
HRT 247	Indoor Plants	3
HRT 260	Introduction to Floral Design	3
HRT 265	Professional Floral Design and Shop Management	3
HRT 266	Advanced Floral Design	3
HRT 267	Silk and Dried Flower Arranging	2
	Total	20

Greenhouse Production

Program Head: Prof. Heidi Clark

AGR 208	Insect Control	3
AGR 226	Agricultural Chemicals	3
AGR 227	Pathology of Plants & Animals	3
HRT 115	Plant Propagation	3
HRT 121	Greenhouse Crop Production I	3
HRT 122	Greenhouse Crop Production II	3
HRT 246	Herbaceous Plants	3
HRT 247	Indoor Plants	3
	Total	24

Horse Science

Program Head: Nancy Lloyd

AGR 126	Horse Genetics and Reproduction	3
AGR 157	Horse Nutrition and Feeding	2
AGR 158	Preventive Health Care for the Horse	2
AGR 219	Advanced Horse Management	2
EQU 110	Fundamentals of Horse Management	3
	EQU or Approved Electives ¹	4
	Total	16

¹Approved Electives: AGR 100 Forage and Pasture Crop Management; AGR 127 Horse Business Management and Marketing; AGR 155 Theory of Horse Behavior and Training; AGR 156 Equine Conditioning for Performance; and AGR 195 Special topics in Equine Science.

Veterinary Assisting

Program Head: Kathy Howard

VET 100	Introduction to Animal Science	3
VET 195	Veterinary Medical Terminology	3
VET 101	Introduction to Veterinary Assisting	3
VET 116	Animal Breeds and Behavior	3
VET 105	Introduction to Veterinary Technology	3
	Internship and Project	3
	Total	18



YOUR FUTURE. OUR FOCUS.

fine arts



- Associate in Arts and Sciences Degree in Liberal Arts: Fine Arts Specialization
- Certificate in Fine Arts
- Career Studies Certificate, Ceramic Arts
- Career Studies Certificate, Fine Arts
- Career Studies Certificate, Nature and Outdoor Photography
- Career Studies Certificate, Photography

Fine Arts Specialization
Associate in Arts and Sciences Degree

Length:

Four semesters (two-year) program

Purpose:

The Associate in Arts and Sciences Degree in Liberal Arts with a Fine Arts Specialization is designed for students who plan to transfer to a four-year college or university to complete a baccalaureate degree program, usually the Bachelor of Arts degree, in Visual Arts or related fields that would necessitate a studio art experience.

Transfer Guidelines:

The Associate in Arts and Sciences Degrees (AA&S) offered by Lord Fairfax Community College are designed to provide freshman and sophomore level coursework towards a completion of a bachelor's degree. The AA&S degree programs require students to take essentially the same courses as required by their University/four-year college counterparts in the areas of mathematics, English, science, humanities, social science, and health/PE. In addition to the required course work, students seeking admission into a Fine Arts program should prepare a portfolio of their work to showcase their artistic skills.

To help facilitate the transfer process, each state supported college and most private colleges in Virginia produce a "Virginia Community College Transfer Guide." These transfer guides provide specific information about the transferability of courses and/or programs to their respective institutions. Transfer guides can be obtained directly from the college of interest or can be referenced in the Student Success area of both the Middletown and Fauquier campuses. Students may also download many Virginia Transfer guides online at the following address: <http://www.vccs.edu/vccsasr/vccstran.htm>.

Students should begin preparing for transfer as early as possible. Steps in this process include: making a career decision, identifying colleges which offer the intended program of study, examining available transfer guides and college catalogs, talking with transfer representatives, identifying program prerequisites, researching the academic competitiveness of the institutions and program under consideration, attending open house events offered by the colleges, and exploring financial aid and housing opportunities.

Lord Fairfax Community College offers many services and programs to assist the transfer student. Students are encouraged to seek the assistance of their faculty advisor or a Student Success representative to gain additional information to plan a successful transfer experience.

Course #	Title	Credits
First Semester		
ART 101	History and Appreciation of Art I	3
ART 121	Drawing I	3
ENG 111	College Composition I	3
HIS 111	History of World Civilization I	3
MTH 151	Mathematics for the Liberal Arts ¹	3
STD 101	Orientation to the Visual Arts	1
Total		16
Second Semester		
ART 102	History and Appreciation of Art II	3
ART 122	Drawing II ¹	3
ENG 112	College Composition II	3
HIS 112	History of World Civilization II	3
MTH 152	Mathematics for the Liberal Arts II ¹	3
	Approved Elective ²	3
Total		18
Third Semester		
ART 131	Fundamentals of Design I (includes one credit lab)	4
SPD 100/110	Principles of Public Speaking	3
	Approved Social Science Elective ²	3
	Science with Laboratory ³	4
	Physical Education (or Health)	2
Total		16
Fourth Semester		
ART 132	Fundamentals of Design II ¹ (includes one credit lab)	4
ART EEE	Art Elective ³	3
	Approved Social Science Elective ²	3
	Science with Laboratory ³	4
ART 287	Portfolio and Resume Preparation	1
Total		15
Program Total		62-66

¹Prerequisite: ART 121

²Students may select Social Science electives from the approved list found on page 47.

³A one-year sequence of Biology, Chemistry, Geology, or Physics is recommended; however, depending on the requirements of the four-year institutions, two one-semester courses in different sciences may be substituted with advisor approval.

⁴Prerequisite: ART 131

⁵Approved Art Electives: ART 111, ART 125, ART 153, ART 231, ART 243, ART 283 and ART 284.

⁶Students may elect to take MTH 163, 164, 173, 241 or 271 in place of MTH 151 and MTH 152.

⁷ITE 115 or CSC 155 will satisfy this requirement. Students are required to 1) complete a computer course such as CSC 155, ITE 115, or equivalent or 2) demonstrate proficiency in using a windows based operating system along with word processing, spreadsheet, database management, presentation and communication software by passing a LFCC Computer Competency exam (see page 48). Students eligible for Option 2 may select any appropriate elective. Please consult your academic advisor.

Students are encouraged to determine, with their advisor's help, transferability of health courses to specific four-year institutions.

Length:

Two semesters (one year) program

Purpose:

The growing trend among four-year colleges and art institutes is to offer a Foundation of Art curriculum to first year students to prepare them for a concentrated three-year studio art experience. Students wishing to transfer are encouraged to take the equivalent Foundation of Art curriculum courses and transfer upon successful completion of that program. The courses in this certificate program are designed to replicate the courses offered in a Foundation of Art program. This certificate specifically serves students who wish to satisfy the requirements of a Foundation of Art curriculum in pursuit of a four-year degree in Fine Art.

Transfer Guidelines:

The certificate of fine arts offered by Lord Fairfax Community College is designed to provide freshman level coursework toward the completion of a bachelor of fine arts degree. The certificate requires the student to take the equivalent courses offered by the four-year college in their Foundation of Art program. This fundamental curriculum prepares students for a three-year visual arts program at a four-year college. In addition to the successful completion of the required course work, all students wishing to transfer must prepare a portfolio of their work in visual art. This portfolio should showcase their skills and their potential as an art student.

Course #	Title	Credits
First Semester		
ART 101	History and Appreciation of Art I	3
ART 111	Introduction to the Arts I	3
ART 121	Drawing I	3
ART 131	Fundamentals of Design I (includes one credit lab)	4
ENG 111	College Composition I	3
STD 101	Orientation to the Visual Arts (College Success Skills?)	1
Total		17
Second Semester		
ART 102	History and Appreciation of Art II	3
ART 112	Introduction to the Arts II	3
ART 122	Drawing II	3
ART 132	Fundamentals of Design II (includes one credit lab)	4
ART 287	Portfolio and Resume Preparation Approved Social Science Elective ¹	1 3
Total		17
Program Total		34

¹ Students may select Social Science electives from the approved list found on page 47.

career studies certificates

Certificate

Ceramic Arts

Program Head: Prof. Ann Currie

ART 153	Ceramics I (or approved elective) ¹	3
ART 154	Ceramics II (or approved elective) ¹	3
ART 235	Functional Ceramics (or approved elective) ¹	3
ART 236	Sculptural Ceramics (or approved elective) ¹	3
ART 237	Ceramic Decoration (or approved elective) ¹	3
	Ceramic or Crafts elective	3
	Total	18

Fine Arts

Program Head: Prof. Ann Currie

ART 121	Drawing I	3
ART 122	Drawing II	3
ART 131	Fundamentals of Design I	3
ART 241	Painting I ¹	3
ART 242	Painting II ²	3
ART EEE	Approved Elective ³	3
	Total	18

¹Prerequisite for ART 241 is ART 122 or instructor approval.

²Prerequisite for ART 242 is ART 122 or instructor approval.

³Approved electives: ART 132 Fundamentals of Design II; *ART 235 Functional Ceramics; *ART 231 Sculpture I; and *ART 243 Watercolor I, Summer Institute (3 credits).

Nature and Outdoor Photography

Program Head: Prof. Robert Simpson

PHT 107	Nature Photography	3
PHT 216	Wildlife Photography ¹	3
PHT 227	Photographic Careers	3
	Approved Electives ²	6
	Total	15

¹Prerequisite for PHT 216 is PHT 107 or professor's approval.

²Approved electives from courses with BIO, FOR or PHT prefixes.

Photography

Program Head: Nancy Lloyd

PHT 101	Photography I	3
PHT 102	Photography II	3
	Photography Electives	6
	Total	12

other career certificates



- Career Studies Certificate, Child Development
- Career Studies Certificate, Instructional Assistant
- Career Studies Certificate, Interior Design
- Career Studies Certificate, Kitchen and Bath Design
- Career Studies Certificate, Police Science
- Career Studies Certificate, Sign Communications

career studies certificates

Certificate

Child Development

Program Head: Nancy Lloyd

CHD 120	Introduction to Early Childhood Education	3
CHD 205	Guiding the Behavior of Children	3
EDU 235	Health, Safety, and Nutrition Education	3
CHD 297	Coordinated Internship in Childhood Education (or Cooperative Education) Approved Electives ¹	6
Total		18

¹Approved electives: CHD 118 Methods and Materials in Language Arts for Children; CHD 125 Creative Activities for Children; CHD 126 Methods and Materials for Developing Science and Mathematical Concepts in Children; and CHD 145 Methods and Materials for Teaching Art, Music, and Movement to Children.

Instructional Assistant

Program Head: Nancy Lloyd

CHD 118	Methods and Materials in Language Arts for Children	3
CHD 121	Childhood Educational Development I (or CHD 120)	3
CHD 126	Methods and Materials for Developing Science and Mathematical Concepts	3
CHD 205	Guiding the Behavior of Children	3
CHD 210	Introduction to Exceptional Children	3
Total		15

Interior Design

Program Head: Nancy Lloyd

IDS 100	Theory and Techniques of Interior Design	3
IDS 116	Period Residential Design	4
IDS 121	Styles of Furniture and Interiors I	3
IDS 122	Designing Commercial Interiors II	4
IDS 205	Materials and Sources	3
IDS 206	Lighting and Furnishings	3
IDS 225	Business Procedures	3
IDS	Elective	3
Total		26

Kitchen and Bath Design

Program Head: Nancy Lloyd

ART 131	Fundamentals of Design	3
DRF 165	Architectural Blueprint Reading	3
IDS 105	Architectural Drafting for Interior Design	3
IDS 225	Business Procedures	3
IDS 205	Materials and Sources	3
IDS 217	Advanced Rendering and Presentation	3
IDS 245	CADD for Interior Design	3
IDS 206	Lighting and Furnishings	3
IDS 297	Internship	3
	Electives	2
Total		29

Police Science

Program Head: Nancy Lloyd

ADJ 107	Survey of Criminology	3
ADJ 211	Criminal Law, Evidence, and Procedures I	3
ADJ 212	Criminal Law, Evidence, and Procedures II	3
ADJ 236	Principles of Criminology Investigation	3
ADJ 237	Advanced Criminal Investigation	3
	ADJ, PSY, or SOC Elective	3
Total		18

Sign Communications

Program Head: Nancy Lloyd

ASL 101	American Sign Language	3
ASL 102	American Sign Language II	3
ASL 201	American Sign Language III	3
ASL	Electives	6
	prerequisite for INT 195 Sign to Voice Interpreting I:	
ASL 202	American Sign Language IV or	
INT 130	Interpreting – An Introduction to the Profession	
Total		15

course descriptions

All Lord Fairfax Community College course descriptions are a part of the Virginia Community College System Master Course file (<http://www.so.cc.va.us/mcf/alpha.htm>), which is standardized statewide. Students should refer to individual faculty course syllabi for more specific details.

Course Credits

The credit value for each course is indicated after the title in the course description. One credit is equivalent to one collegiate semester hour credit.

Each semester hour of credit is equivalent to one collegiate semester hour credit.

Each semester hour of credit given for a course is based on approximately one academic hour (50 minutes) of formalized, structured instructional time in a particular course for 15 weeks, or the equivalent in other time periods or instructional formats. This may consist of lectures, out-of-class study, laboratory, or combinations thereof as follows:

1. One hour of lecture (including lecture, seminar, discussion, or other similar experiences) per week for 15 weeks plus an examination period = 1 collegiate semester-hour credit.
2. Two or three hours, depending on the academic discipline, of laboratory (including laboratory, clinical training, supervised work experience, coordinated internship, or other similar experience) per week for 15 weeks plus an examination period (1 hour) = 1 collegiate semester-hour credit.
3. One to five credits, with variable hours of attendance, may be earned in general usage Coordinated Internship, Cooperative Education, Seminar and Project, and Supervised Study.

Course Prerequisites

If any prerequisites are required before enrolling in a course, the College identifies these prerequisites in the course description. Courses in special sequences (usually identified by the numerical I-II) require that prior courses or their equivalent be completed before enrolling in a course unless special permission is obtained from the Vice President of Learning or the Instructional Services Department.

Course Numbering System

The following is a description of Lord Fairfax Community College's system for logically and meaningfully numbering its courses.

Level of Courses

01-09

These courses will be used for Developmental Studies. Credits earned in these courses are not applicable toward associate degree programs however, upon approval by the Dean of Instruction and Student Success, some developmental courses may provide credit appropriate for diploma or certificate programs. Students may re-register for these courses in subsequent semesters in accordance with state policy.

10-99

These courses are basic occupational courses for diploma and certificate programs. The credits earned in these courses are applicable toward diploma and certificate programs. These credits are not applicable toward an associate degree.

100-199

These courses are freshman-level courses applicable toward associate degree, diploma, and certificate programs.

200-299

These courses are sophomore-level courses applicable toward associate degree, diploma, and certificate programs.

General Usage Courses

These courses are used by inserting the appropriate department prefix for the desired course and by adding relevant descriptive information in the course title. Credit value is variable, from 1-5 hours. In instances where work, clinical, or field experience is used, the work/credit ratio may not exceed 1 credit for each 5 contact hours per week (or the equivalent in other time periods). All of these courses may be repeated for credit.

90, 190, and 290	Coordinated Internship
95, 195, and 295	Topics
96, 196, and 296	On-Site Training
97, 197, and 297	Cooperative Education
98, 198, and 298	Seminar and Project
99, 199, and 299	Supervised Study

Accounting

ACC 115 Applied Accounting (3-4 Cr.)

Presents practical accounting procedures for retail stores, professional individuals in firms, and personal service occupations. Covers the accounting cycle, journals, ledgers, preparation of financial statements and payrolls, and checking account management. A laboratory co-requisite (ACC 117) may be required as identified by the college. Lecture 3-4 hours per week.

ACC 211 Principles of Accounting I (3-4 Cr.)

Presents accounting principles and their application to various businesses. Covers the accounting cycle, income determination, and financial reporting. Studies services, merchandising, and includes internal controls. A laboratory co-requisite (ACC 213) may be required as identified by the college. Lecture 3-4 hours per week.

ACC 212 Principles of Accounting II (3-4 Cr.)

Continues Principles of Accounting I (ACC 211) with emphasis on the application to partnerships, corporations, and the study of financial analysis. Includes an introduction to cost and managerial accounting. A laboratory co-requisite (ACC 214) may be required as identified by the college. Lecture 3-4 hours per week.

ACC 215 Computerized Accounting (3-4 Cr.)

Introduces the computer in solving accounting problems. Focuses on operation of computers. Presents the accounting cycle and financial statement preparation in a computerized system and other applications for financial and managerial accounting. Prerequisite or co-requisite: ACC 212 or equivalent. Lecture 3-4 hours per week.

ACC 221 Intermediate Accounting I (3-4 Cr.)

Covers accounting principles and theory, including a review of the accounting cycle and accounting for current assets, current liabilities and investments. Introduces various accounting approaches and demonstrates the effect of these approaches on the financial statement users. Prerequisite: ACC 212 or equivalent. Lecture 3-4 hours per week.

ACC 222 Intermediate Accounting II (3-4 Cr.)

Continues accounting principles and theory with emphasis on accounting for fixed assets, intangibles, corporate capital structure, long-term liabilities, and investments. Prerequisite: ACC 221 or equivalent. Lecture 3-4 hours per week.

ACC 225 Managerial Accounting (3 Cr.)

Presents the preparation, analysis and interpretation of accounting data for managerial decision-making. Includes cost control, capital budgeting, and pricing decisions. Prerequisite: ACC 212 or equivalent. Lecture 3 hours per week.

ACC 231 Cost Accounting I (3 Cr.)

Studies cost accounting and reporting as applied to job order, process, and standard cost accounting systems. Includes cost control and other topics. Prerequisite: ACC 212 or equivalent. Lecture 3 hours per week.

ACC 232 Cost Accounting II (3 Cr.)

Studies profit analysis and other topics. Prerequisite: ACC 231 or equivalent. Lecture 3 hours per week.

ACC 241 Auditing I (3 Cr.)

Presents techniques of investigating, interpreting, and appraising accounting records and assertions. Studies internal control design and evaluation, evidence-gathering techniques, and other topics. Prerequisite or co-requisite: ACC 222 or equivalent. Lecture 3 hours per week.

ACC 242 Auditing II (3 Cr.)

Studies advanced sampling concepts, audit reports, controls, evidence, auditing standards, ethics, and legal liability. Prerequisite or co-requisite: ACC 241 or equivalent. Lecture 3 hours per week.

ACC 261 Principles of Federal Taxation I (3 Cr.)

Presents the study of federal taxation as it relates to individuals and related entities. Includes tax planning, compliance, and reporting. Lecture 3 hours per week.

ACC 262 Principles of Federal Taxation II (3 Cr.)

Presents the study of federal taxation as it is related to partnerships, corporations, and other tax entities. Includes tax planning, compliance, and reporting. Lecture 3 hours per week.

Administration of Justice

ADJ 107 Survey of Criminology (3 Cr.)

Surveys the volume and scope of crime; considers a variety of theories developed to explain the causation of crime and criminality. Lecture 3 hours per week.

ADJ 116 Special Enforcement Topics (3 Cr.)

Considers contemporary issues, problems, and controversies in modern law enforcement. Lecture 3 hours per week.

ADJ 118 Crisis Intervention and Critical Issues (3 Cr.)

Addresses basic problems involved in crisis intervention and current critical issues in law enforcement and the administration of justice; emphasizes practical approaches to discover and implement solutions. Lecture 3 hours per week.

ADJ 133 Ethics and the Criminal Justice Professional (3 Cr.)

Examines ethical dilemmas pertaining to the criminal justice system, including those in policing, courts and corrections. Focuses on some of the specific ethical choices that must be made by the criminal justice professional. Lecture 3 hours per week.

ADJ 138 Defensive Tactics (2 Cr.)

Surveys and demonstrates the various types of non-lethal force tools and tactics for use by criminal justice personnel in self-defense, arrest, search, restraint and transport of those in custody. Lecture 2 hours per week.

ADJ 140 Introduction to Corrections (3 Cr.)

Focuses on societal responses to the offender. Traces the evolution of practices based on philosophies of retribution, deterrence, and rehabilitation. Reviews contemporary correctional activities and their relationships to other aspects of the criminal justice system. Lecture 3 hours per week.

ADJ 201 Criminology (3 Cr.)

Studies current and historical data pertaining to criminal and other deviant behavior. Examines theories that explain crime and criminal behavior in human society. Lecture 3 hours per week.

ADJ 211-212 Criminal Law, Evidence, and Procedures I-II (3 Cr.) (3 Cr.)

Teaches the elements of proof for major and common crimes and the legal classification of offenses. Studies the kinds, degrees, and admissibility of evidence and its presentation in criminal proceedings with emphasis on legal guidelines for methods and techniques of evidence acquisition. Surveys the procedural requirements from arrest to final disposition in the various American court systems with focus on the Virginia jurisdiction. Lecture 3 hours per week.

ADJ 227 Constitutional Law for Justice Personnel (3 Cr.)

Surveys the basic guarantees of liberty described in the U.S. Constitution and the historical development of these restrictions on government power, primarily through U.S. Supreme Court decisions. Review rights of free speech, press, assembly, as well as criminal

procedure guarantees (to counsel, jury trial, habeas corpus, etc.) as they apply to the activities of those in the criminal justice system. Lecture 3 hours per week.

ADJ 236 Principles of Criminal Investigation (3 Cr.)

Surveys the fundamentals of criminal investigation procedures and techniques. Examines crime scene search, collecting, handling, and preserving of evidence. Lecture 3 hours per week.

ADJ 237 Advanced Criminal Investigation (3 Cr.)

Introduces specialized tools and scientific aids used in criminal investigation. Applies investigative techniques to specific situations and preparation of trial evidence. Prerequisite: ADJ 236 or divisional approval. Lecture 3 hours per week.

Administrative Support Technology

AST 100 Office Skills Review (3-4 Cr.)

Reviews office skills such as keyboarding, shorthand, machine transcription, and other selected office topics based on individual needs. Lecture 3-4 hours per week.

AST 101 Keyboarding I (2-4 Cr.)

Teaches the alpha/numeric keyboard with emphasis on correct techniques, speed, and accuracy. Teaches formatting of basic personal and business correspondence, reports, and tabulation. A laboratory co-requisite (AST 103) may be required. Lecture 2-4 hours per week.

AST 102 Keyboarding II (2-4 Cr.)

Develops keyboarding and document production skills with emphasis on preparation of specialized business documents. Continues skill building for speed and accuracy. Prerequisite: AST 101. A laboratory co-requisite (AST 104) may be required. Lecture 2-4 hours per week.

AST 107 Editing/Proofreading Skills (3 Cr.)

Develops skills essential to creating and editing business documents. Covers grammar, spelling, diction, punctuation, capitalization, and other usage problems. Co-requisite: AST 101. Lecture 3 hours per week.

AST 117 Keyboarding for Computer Usage (1 Cr.)

Teaches the alphabetic keyboard and 10-key pad. Develops correct keying techniques. Lecture 1 hour per week.

AST 130 Office Procedures (3 Cr.)

Introduces general functions and duties performed in the office. Prerequisite AST 101. Lecture 3 hours per week.

AST 135 Simulation in Office Procedures (2-3 Cr.)
Integrates office skills and procedures in a simulated business setting. Lecture 2-3 hours per week.

AST 136 Office Record Keeping (3 Cr.)
Introduces types of record keeping duties performed in the office, such as financial, tax, payroll, and inventory. Utilizes specialized software where applicable. Lecture 3 hours per week.

AST 141 Word Processing I (2-4 Cr.)
Teaches creating and editing documents, including line and page layouts, columns, fonts, search/replace, cut/paste, spell/thesaurus, and advanced editing and formatting features of word processing software. Prerequisite: AST 101 or equivalent. A laboratory co-requisite (AST 144) may be required. Lecture 2-4 hours per week.

AST 142 Word Processing II (2-4 Cr.)
Teaches advanced software applications. Prerequisite: AST 141 or equivalent. A laboratory co-requisite (AST 145) may be required. Lecture 2-4 hours per week.

AST 147 Introduction to Presentation Software (1-2 Cr.)
Introduces presentation options including slides, transparencies, and other forms of presentations. Prerequisite: AST 101 or equivalent. Lecture 1-2 hours per week.

AST 175 Communication Strategies for the Medical Profession (3 Cr.)
Develops skills in verbal and written communication techniques for medical office personnel. Covers principles of communicating effectively with patients, their families, and healthcare professionals. Stresses use of standard English and medical terminology in preparation of correspondence, reports, and chart notes as required in the medical office. Emphasizes ethical considerations, confidentiality, and security of patient information. Lecture 3 hours per week.

AST 176 Medical Office/Unit Management (3 Cr.)
Develops administrative and support skills for a medical setting including effective communications, ethical and legal issues, research techniques, and insurance claims processing. Lecture 3 hours per week.

AST 205 Business Communications (3 Cr.)
Teaches techniques of oral and written communications. Emphasizes writing and presenting business-related materials. Lecture 3 hours per week.

AST 206 Professional Development (3 Cr.)
Develops professional awareness in handling business and social situations. Emphasizes goal setting,

critical thinking, decision-making, and employment skills. Lecture 3 hours per week.

AST 213 Legal Keyboarding (2-4 Cr.)
Develops decision-making skills, speed, and accuracy in preparation of legal documents with emphasis on meeting office requirements. Prerequisite AST 102. A laboratory co-requisite (AST 214) may be required. Lecture 2-4 hours per week.

AST 215 Medical Keyboarding (2-4 Cr.)
Develops decision-making skills, speed, and accuracy in preparation of medical documents with emphasis on meeting office requirements. Prerequisite AST 102. A laboratory co-requisite (AST 216) may be required. Lecture 2-4 hours per week.

AST 230 Introduction to Office Technology (3 Cr.)
Introduces principles, methods, and techniques involved in office technology. Emphasizes word processing, microcomputer equipment and software. A laboratory co-requisite (AST 231) may be required. Lecture 3 hours per week.

AST 232 Microcomputer Office Applications (2-4 Cr.)
Teaches production of business documents using word processing, databases, and spreadsheets. Emphasizes document production to meet business and industry standards. Prerequisite: AST 101 or equivalent. A laboratory co-requisite (AST 233) may be required. Lecture 2-4 hours per week.

AST 234 Records and Database Management (2-4 Cr.)
Teaches filing and records management procedures using microcomputer database software. Incorporates both manual and electronic methods for managing information. Prerequisite: AST 101 or equivalent. Lecture 2-4 hours per week.

AST 236 Specialized Software Applications (2-4 Cr.)
Teaches specialized integrated software applications on the microcomputer. Emphasizes document production to meet business and industry standards. Prerequisite: AST 101 or equivalent. A laboratory co-requisite (AST 237) may be required. Lecture 2-4 hours per week.

AST 240 Machine Transcription (2-4 Cr.)
Develops proficiency in the use of transcribing equipment to produce business documents. Emphasizes listening techniques, business English, and proper formatting. Includes production rates and mailable copy requirement. A laboratory co-requisite (AST 241) may be required. Co-requisite AST 102 or equivalent. Lecture 2-4 hours per week.

AST 243 Office Administration I (3 Cr.)

Develops an understanding of the administrative support role and the skills necessary to provide organizational and technical support in a contemporary office setting. Emphasizes the development of critical-thinking, problem-solving, and job performance skills in a business office environment. Prerequisite: AST 101. Lecture 3 hours per week.

AST 244 Office Administration II (3 Cr.)

Enhances skills necessary to provide organizational and technical support in a contemporary office setting. Emphasizes administrative and supervisory role of the office professional. Includes travel and meeting planning, office budgeting and financial procedures, international issues, and career development. Prerequisite: AST 243 or equivalent. Lecture 3 hours per week.

AST 245 Medical Machine Transcription (3-4 Cr.)

Develops machine transcription skills, integrating operation of transcribing equipment with understanding of medical terminology. Emphasizes dictation techniques and accurate transcription of medical documents in prescribed formats. Prerequisite: AST 102 or equivalent. A laboratory co-requisite (AST 246) may be required. Lecture 3-4 hours per week.

AST 247 Legal Machine Transcription (2-4 Cr.)

Develops machine transcription skills, integrating operation of transcribing equipment with understanding of legal terminology. Emphasizes dictation techniques and accurate transcription of legal documents in prescribed formats. A laboratory co-requisite (AST 248) may be required. Prerequisite AST 102 or equivalent. Lecture 2-4 hours per week.

AST 253 Advanced Desktop Publishing I (2-4 Cr.)

Introduces specific desktop publishing software. Teaches document layout and design, fonts, type-styles, style sheets, and graphics. Prerequisite: AST 101 or equivalent and proficiency in the use of a word processing package. A laboratory co-requisite (AST 255) may be required. Lecture 2-4 hours per week.

AST 254 Advanced Desktop Publishing II (2-4 Cr.)

Presents advanced features of desktop publishing software, culminating in the layout and design of complex multi-page documents. Prerequisite: AST 253 or equivalent. A laboratory co-requisite (AST 256) may be required. Lecture 2-4 hours per week.

AST 257 WP Desktop Publishing (2-4 Cr.)

Uses word processing software to teach advanced document preparation. Prerequisite AST 101 or

equivalent and experience in using the specified word processing software. Prerequisite: AST 141 or equivalent. A laboratory co-requisite (AST 258) may be required. Lecture 2-4 hours per week.

AST 260 Presentation Software (2-4 Cr.)

Teaches creation of slides including use of text, clip art, and graphs. Includes techniques for enhancing presentations with on-screen slide shows as well as printing to transparencies and handouts. Incorporates use of sound and video clips. A laboratory co-requisite (AST 261) may be required. Prerequisite: AST 101 or equivalent. Lecture 2-4 hours per week.

AST 265 Legal Office Procedures I (3 Cr.)

Introduces general office procedures used in law offices and courts. Co-requisite AST 102 or equivalent. Lecture 3 hours per week.

AST 266 Legal Office Procedures II (3 Cr.)

Develops skills necessary to provide organizational and technical support in a legal setting. Emphasizes administrative and supervisory duties. Prerequisite AST 265 or equivalent. Lecture 3 hours per week.

AST 271 Medical Office Procedures I (3 Cr.)

Covers medical office procedures, records management, preparation of medical reports, and other medical documents. Co-requisite AST 102 or equivalent. Lecture 3 hours per week.

AST 272 Medical Office Procedures II (3 Cr.)

Develops skills in the performance of administrative and support services in a medical setting. Covers professional ethics, medical legal issues, and interaction with patients. Prerequisite AST 271 or equivalent. Lecture 3 hours per week.

Agriculture

AGR 100 Forage and Pasture Crop Management (3 Cr.)

Covers fundamental principles of production and the nutritive values of forage and pasture crops, with management for profitable animal production. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

AGR 205 Soil Fertility Management (3 Cr.)

Studies the factors influencing soil productivity with emphasis on fertilizer materials from production to application. Discusses time, sources, and soil acidity. Presents soil testing techniques, interpretations of soil tests, and the addition of nutrients to correct or prevent deficiencies. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

AGR 208 Insect Control (3-4 Cr.)

Examines principles and current trends in insect control. Studies biology and identification of economically important insects and related pests. Lecture 2-3 hours per week. Laboratory 2 hours. Total 4-5 hours per week.

AGR 226 Agricultural Chemicals (3 Cr.)

Studies the relationship and use of chemicals such as insecticides, fungicides, herbicides, fertilizers, and growth regulators. Emphasizes basic chemical principles and their applications. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

AGR 227 Pathology of Plants and Animals (3 Cr.)

Studies the principles of pathology as applied to plants and animals. Discusses bacteria, fungi, and viral diseases as well as abiotic causes of disease. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

Air Conditioning and Refrigeration**AIR 121 Air Conditioning and Refrigeration I (3 Cr.)**

Studies refrigeration theory, tools and equipment, soldering, brazing, refrigeration systems, system components, compressors, evaporators, metering devices. Provides laboratory application of refrigerators and freezers. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

AIR 122 Air Conditioning and Refrigeration II (3 Cr.)

Studies refrigeration theory, tools and equipment, soldering, brazing, refrigeration systems, system components, compressors, evaporators, metering devices. Provides laboratory application of refrigerators and freezers. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week. Prerequisite AIR 121

AIR 134 Circuit and Controls I (3 Cr.)

Presents circuit diagrams for air conditioning units, reading and drawing of circuit diagrams, types of electrical controls. Includes analysis of air conditioning circuits, components, analysis and characteristics of circuits and controls, testing and servicing, introduces electricity for air conditioning which includes circuit elements, direct current circuits and motors, single and three-phase circuits and motors, power distribution systems, and protective devices. Studies the electron and its behavior in passive and active circuits and components. Demonstrates electronic components and circuits as applied to air conditioning system. Lecture 2-3 hours. Laboratory 2-6 hours. Total 4-9 hours per week.

AIR 154 Heating Systems I (3 Cr.)

Introduces types of fuels and their characteristics of combustion; types, components and characteristics of burners, and burner efficiency analyzers. Studies forced air heating systems including troubleshooting, preventive maintenance and servicing. Lecture 2-3 hours per week. Laboratory 2-6 hours. Total 4-8 hours per week. Prerequisite AIR 121

AIR 155 Heating Systems II (3 Cr.)

Introduces types of fuels and their characteristics of combustion; types, components and characteristics of burners, and burner efficiency analyzers. Studies forced air heating systems including troubleshooting, preventive maintenance and servicing. Lecture 2-3 hours per week. Laboratory 2-6 hours. Total 4-8 hours per week. Prerequisite AIR 154

Architecture**ARC 121-122 Architectural Drafting I-II (3 Cr.) (3 Cr.)**

Introduces techniques of architectural drafting, including lettering, dimensioning, and symbols. Requires production of plans, sections, and elevations of a simple building. Studies use of common reference material and the organization of architectural working drawings. Requires development of a limited set of working drawings, including a site plan, related details, and pictorial drawings. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

ARC 130 Introduction to Materials and Methods of Construction (3-4 Cr.)

Introduces the physical properties and characteristics of building materials and methods of construction. Includes review of residential and light commercial wood-frame construction techniques and an introduction to steel and concrete structural systems. Lecture 3-4 hours per week.

ARC 133-134 Construction Methodology & Procedures I & II (3 Cr.) (3 Cr.)

Studies materials used in construction of buildings, covering foundations to structural framing systems. Includes appropriate use of materials for various construction types. Includes specifications of materials and installation procedures; types of specifications and writing procedures; bidding procedures and contract documents. Lecture 3 hours per week.

ARC 140 Principles of Construction Safety (2 Cr.)

Covers construction industry operations and hazards control. Includes principles and practices of accident prevention, cost analysis, investigation techniques, reporting, first aid, protection equipment and general safety principles. Lecture 2 hours per week.

Art

ART 101-102 History and Appreciation of Art I-II (3 Cr.) (3 Cr.)

Presents the history and interpretation of architecture, sculpture, and painting. Begins with prehistoric art and follows the development of western civilization to the present. Reading prerequisite required. Lecture 3 hours per week.

ART 111-112 Introduction to the Arts I-II (3 Cr.) (3 Cr.)

Parallels studio classes and provides a general survey of the arts. Emphasizes perception, using major monuments of painting, sculpture, and architecture as examples. Lecture 3 hours per week.

ART 121-122 Drawing I-II (3-4 Cr.) (3-4 Cr.)

Develops basic drawing skills and understanding of visual language through studio instruction/lecture. Introduces concepts such as proportion, space, perspective, tone and composition as applied to still life, landscape, and the figure. Uses drawing media such as pencil, charcoal, ink wash, and color media. Includes field trips and gallery assignments as appropriate. ART 121 is a prerequisite for ART 122 or see instructor. Lecture 1-2 hours per week. Studio instruction 4 hours. Total 5-6 hours per week.

ART 125 Introduction to Painting (3 Cr.)

Introduces study of color, composition and painting techniques. Places emphasis on experimentation and enjoyment of oil and/or acrylic paints and the fundamentals of tools and materials. Prerequisite: ART 122 or see instructor. Lecture 2 hours per week. Studio instruction 3 hours. Total 5 hours per week.

ART 131-132 Fundamentals of Design I-II (3-4 Cr.) (3-4 Cr.)

Explores the concepts of two- and three-dimensional design and color. May include field trips as required. Art 131 is a prerequisite for ART 132 or see instructor. Lecture 1-2 hours per week. Studio instruction 4 hours. Total 5-6 hours per week.

ART 153-154 Ceramics I-II (3-4 Cr.) (3-4 Cr.)

Presents problems in the design and production of functional and non-functional ceramic works. Includes hand building the potter's wheel and clays and glazes. Lecture 0-2 hours per week. Studio instruction 4-6 hours. Total 5-8 hours per week.

ART 211-212 History of American Art I-II (3 Cr.) (3 Cr.)

Surveys the history of American art from the 1600's to the present. Emphasizes architecture, sculpture, and painting. Includes crafts, decorative arts, and

photography. Reading prerequisite required. Lecture 3 hours per week.

ART 231-232 Sculpture I-II (3-4 Cr.) (3-4 Cr.)

Introduces sculptural concepts and methods of production in traditional and contemporary media. Includes clay, plaster, wood, stone, metal, plastics, and terra cotta. May include field trips. Prerequisite: ART 131/132 or see instructor. Lecture 1-2 hours per week. Studio instruction 4-6 hours. Total 5-6 hours per week.

ART 235 Functional Ceramics (3-4 Cr.)

Explores the design and production of functional ceramics, including hand building and use of the wheel. Prerequisite: ART 154 or instructor approval. Lecture 0-2 hours per week. Studio instruction 4-6 hours. Total 6-8 hours per week.

ART 236 Sculptural Ceramics (3-4 Cr.)

Explores the design and production of sculptural ceramics, including hand building and use of the wheel. Prerequisite: ART 154 or instructor approval. Lecture 0-2 hours per week. Studio instruction 4 hours. Total 6 hours per week.

ART 237 Ceramic Decoration (3 Cr.)

Explores ceramic decoration techniques used in functional and non-functional ceramics. Prerequisite: ART 154 or instructor approval. Lecture 0-2 hours per week. Studio instruction 4 hours. Total 6 hours per week.

ART 241-242 Painting I-II (3-4 Cr.) (3-4 Cr.)

Introduces abstract and representational painting in acrylic and/or oil with emphasis on color composition and value. Prerequisite: ART 122 or instructor approval. Lecture 1-2 hours per week. Studio instruction 4 hours. Total 6 hours per week.

ART 243-244 Watercolor I-II (3-4 Cr.) (3-4 Cr.)

Presents abstract and representational painting in watercolor with emphasis on design, color, composition, technique, and value. Prerequisite: ART 131 or instructor approval. Lecture 1-2 hours per week. Studio instruction 2-4 hours. Total 4-6 hours per week.

ART 271-272 Printmaking I-II (3 Cr.) (3 Cr.)

Introduces the student to the full range of printmaking techniques. Includes woodcut, silkscreen, etching, and lithography. Provides historical perspective on printmaking. Lecture 2 hours. Studio instruction 3 hours. Total 5 hours per week.

ART 283-284 Computer Graphics I-II (3-4 Cr.) (3-4 Cr.)

Utilizes microcomputers and software to produce computer graphics. Employs techniques learned to solve studio projects which reinforce instruction and are appropriate for portfolio use. Lecture 1-2 hours per week. Studio instruction 3-4 hours. Total 4-6 hours per week.

ART 287 Portfolio and Resume Preparation (1 Cr.)

Focuses on portfolio preparation, resume writing, and job interviewing for students. Requires instructor's approval. Lecture 1 hour.

American Sign Language

(replaces Sign Communications)

ASL 101-102 American Sign Language I-II (3-4 Cr.) (3-4 Cr.)

Introduces the fundamentals of American Sign Language (ASL) used by the Deaf Community, including basic vocabulary, syntax, finger spelling, and grammatical non manual signals. Focuses on communicative competence. Develops gestural skills as a foundation for ASL enhancement. Introduces cultural knowledge and increases understanding of the Deaf Community.

ASL 115 Finger Spelling and Number Use in ASL (2 Cr.)

Provides intensive practice in comprehension and production of finger spelled words and numbers with emphasis on clarity and accuracy. Focuses on lexicalized finger spelling and numeral incorporation as used by native users of American Sign Language. Prerequisite ASL 101 or permission of instructor. Lecture 2 hours per week.

ASL 125 History and Culture of the Deaf Community I (3 Cr.)

Presents an overview of various aspects of Deaf Culture, including educational and legal issues. Lecture 3 hours per week.

ASL 201-202 American Sign Language III-IV (3-4 Cr.) (3-4 Cr.)

Develops vocabulary, conversational competence, and grammatical knowledge with a total immersion approach. Introduces increasingly complex grammatical aspects including those unique to ASL. Discusses culture and literature. Contact with the Deaf Community is encouraged to enhance linguistic and cultural knowledge. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

INT 105-106 Interpreter Education (3Cr.) (3Cr.)

Develops fundamental skills of interpreting, including cognitive processes and intralingual language development in English and ASL. Reviews process Models of Interpreting, and uses one to analyze interpretations. Develops feedback skills essential to the team interpreting process. Lecture 3 hours.

INT 130 Interpreting: An Introduction to the Profession (3 Cr.)

Introduces basic principles and practices of interpreting, focusing on the history of the profession, logistics of interpreting situations, regulatory and legislative issues, resources, and the Code of Ethics. Describes the state quality assurance screening and national certification exam systems, including test procedures. Lecture 3 hours per week.

INT 235 Interpreting in the Educational Setting (3Cr.)

Examines the role, responsibilities, and communication techniques of the educational setting. Provides information on the nature and needs of the deaf student and methods used in working with students who are Deaf and hard of hearing. Describes various communication systems used for a variety of educational environments. Prerequisites ASL 102 and INT 130. Lecture 3 hours per week.

INT 236 Interpreting in Special Situations (3 Cr.)

Studies roles, responsibilities, and qualifications involved in interpreting in specific settings, such as medical, legal, conference, religious, and performing arts. Addresses specific linguistic and ethical concerns for each. Prerequisite ASL 102 and INT 130. Lecture 3 hours per week.

Biology**BIO 101-102 General Biology I-II (4 Cr.) (4 Cr.)**

Explores fundamental characteristics of living matter from the molecular level to the ecological community with emphasis on general biological principles. Introduces the diversity of living organisms, their structure, function, and evolution. Reading prerequisite required. Lecture 3 hours per week. Recitation and laboratory 3 hours. Total 6 hours per week.

BIO 110 General Botany (4 Cr.)

Emphasizes plant life cycles, anatomy, morphology, taxonomy, and evolution. Considers the principles of genetics, ecology, and physiology. Lecture 3 hours per week. Laboratory 3 hours. Total 6 hours per week.

BIO 115 Wild Mushroom Identification (2 Cr.)

Provides familiarity with the potential value of wild mushrooms as a nutritional source and as a food delicacy. Includes positive identification of the several deadly mushrooms, recognition of various toxic and hallucinogenic species, and of the edible mushrooms found in this area. Includes field trips. Lecture 1 hour per week. Laboratory 2 hours. Total 3 hours per week.

BIO 141-142 Human Anatomy and Physiology I-II (4 Cr.) (4 Cr.)

Integrates anatomy and physiology of cells, tissues, organs, and systems of the human body. Integrates concepts of chemistry, physics, and pathology. Reading prerequisite required. Lecture 3 hours per week. Laboratory 3 hours. Total 6 hours per week.

BIO 150 Introductory Microbiology (4 Cr.)

Studies the general characteristics of microorganisms. Emphasizes their relationships to individual and community health. Reading prerequisite required. Lecture 3 hours per week. Recitation and laboratory 3 hours. Total 6 hours per week.

BIO161-162 Field Biology of Animals I-II (4 Cr.)

Studies natural history, life cycles, population dynamics, taxonomy, and general morphology of animals with emphasis upon identification, collection, and preservation methods. Lecture 3 hours per week. Recitation and laboratory 3 hours. Total 6 hours per week.

BIO 270 General Ecology (2-4 Cr.)

Studies interrelationships between organisms and their natural and cultural environments with emphasis on populations, communities, and ecosystems. Prerequisite: BIO 101-102 or instructor approval. Lecture 3 hours per week. Laboratory 3 hours. Total 6 hours per week.

Building**BLD 231 Construction Estimating I (3 Cr.)**

Focuses on materials take-off and computing quantities from working drawings and specifications. Includes methods for computing quantities of concrete, steel, masonry, roofing, and excavation. Deals with pricing building components, materials and processes, as well as transportation and handling costs, mark-up discount procedures, equipment cost and labor rates. Lecture 3 hours per week.

Business Management and Administration**BUS 100 Introduction to Business (3 Cr.)**

Presents a broad introduction to the functioning of business enterprise within the U.S. economic framework. Introduces economic systems, essential elements of business organization, production, human resource management, marketing, finance, and risk management. Lecture 3 hours per week.

BUS 111 Principles of Supervision I (3-4 Cr.)

Teaches the fundamentals of supervision, including the primary responsibilities of the supervisor. Introduces factors relating to the work of supervisors and subordinates. Covers aspects of leadership, job management, work improvement, training and orientation, performance evaluation, and effective employee/supervisor relationships. Lecture 3-4 hours per week.

BUS 116 Entrepreneurship (3 Cr.)

Presents the various steps considered necessary when going into business. Includes areas such as product-service analysis, market research evaluation, setting up books, ways to finance startup, operations of the business, development of business plans, buy-outs versus starting from scratch, and franchising. Uses problems and cases to demonstrate implementation of these techniques. Lecture 3 hours per week.

BUS 165 Small Business Management (3 Cr.)

Identifies management concerns unique to small businesses. Introduces the requirements necessary to initiate a small business, and identifies the elements compromising a business plan. Presents information establishing financial and administrative controls, developing a marketing strategy, managing business operations, and the legal and government relationships specific to small businesses. Lecture 3 hours per week.

BUS 200 Principles of Management (3 Cr.)

Teaches management and the management functions of planning, organizing, leading, and controlling. Focuses on application of management principles to realistic situations managers encounter as they attempt to achieve organizational objectives. Lecture 3 hours per week.

BUS 205 Human Resource Management (3 Cr.)

Introduces employment, selection, and placement of personnel, usage levels and methods, job descriptions, training methods and programs, and employee evaluation systems. Includes procedures for management of human resources and uses case studies and problems to demonstrate implementation of these techniques. Lecture 3 hours per week.

YOUR FUTURE. OUR FOCUS.

BUS 220 Introduction to Business Statistics (3 Cr.)

Introduces statistics as a tool in decision-making. Emphasizes ability to collect, present, and analyze data. Employs measures of central tendency and dispersion, statistical inference, index numbers, probability theory, and time series analysis. Lecture 3 hours per week.

BUS 236 Communication in Management (3 Cr.)

Introduces the functions of communication in management with emphasis on gathering, organizing, and transmitting facts and ideas. Teaches the basic techniques of effective oral and written communication. Lecture 3 hours per week.

BUS 241 Business Law I (3 Cr.)

Presents a broad introduction to the legal environment of U.S. business. Develops a basic understanding of contract law and agency and government regulation. Lecture 3 hours per week.

BUS 242 Business Law II (3 Cr.)

Develops a basic understanding of the Uniform Commercial Code, business organization bankruptcy, and personal and real property. Lecture 3 hours per week.

BUS 285 Current Issues in Management (3 Cr.)

Designed as a capstone for management majors, the course is designed to provide an integrated perspective of current issues and trends in business management. Contemporary issues will be explored in a highly participatory class environment. Lecture 3 hours per week.

Chemistry

CHM 01 Chemistry I (1-5 Cr.)

Presents basic inorganic and organic principles to students with little or no chemistry background. Can be taken in subsequent semesters as necessary until course objectives are completed. Lecture 1-4 hours per week. Laboratory 0-3 hours. Total 1-7 hours per week.

CHM 100 Introduction to Chemistry (3 Cr.)

Introduces chemical concepts to students not intending to specialize in a chemistry field. Emphasizes basic inorganic principles. Reading prerequisite required. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

CHM 101-102 General Chemistry I-II (4 Cr.) (4 Cr.)

Emphasizes experimental and theoretical aspects of inorganic, organic, and biological chemistry. Discusses general chemistry concepts as they apply to issues within our society and environment.

Designed for the non-science major. Reading prerequisite required. Prerequisite for CHM 101 is MTH 03. Lecture 3 hours per week. Laboratory 3 hours. Total 6 hours per week.

CHM 111-112 College Chemistry I-II (4 Cr.) (4 Cr.)

Explores the fundamental laws, theories, and mathematical concepts of chemistry. Designed primarily for science and engineering majors. Requires a strong background in mathematics. Reading prerequisite required. Prerequisite for CHM 111 is MTH 04. Lecture 3 hours per week. Laboratory 3 hours. Total 6 hours per week.

CHM125 Chemistry for Nurses (3 Cr.)

Introduces the basic concepts of general, organic, and biological chemistry necessary for practicing nurses. Prerequisite: MTH 01 or equivalent. Note: May not transfer as a lab science. Lecture 3 hours per week.

CHM 127 Chemistry for Semiconductor Technology I (4 Cr.)

Introduces the chemical principles and applications most essential to semiconductor technology. Includes atomic structure and the periodic table; conductors, semiconductors and insulators; gasses; solutions; and acids, bases, and buffers. Prerequisite: MTH 115 or equivalent. Lecture 3 Hours per week. Laboratory 3 hours. Total 6 hours per week.

CHM 241-242 Organic Chemistry I-II (3 Cr.) (3 Cr.)

Introduces fundamental chemistry of carbon compounds, including structures, physical properties, syntheses, and typical reactions. Emphasizes reaction mechanisms. Prerequisite: CHM 111-112. Co-requisite: CHM 243-244 or CHM 245-246. Lecture 3 hours per week.

CHM 243-244 Organic Chemistry Laboratory I-II (1 Cr.) (1 Cr.)

Is taken concurrently with CHM 241 and CHM 242. Laboratory 3 hours per week.

CHM 245-246 Organic Chemistry Laboratory I-II (2 Cr.) (2 Cr.)

Includes qualitative organic analysis. Shall be taken concurrently with CHM 241 and CHM 242. Lecture 1 hour per week. Laboratory 3 hours. Total 4 hours per week.

CHM 260 Introductory Biochemistry (3 Cr.)

Explores fundamentals of biological chemistry. Includes study of macromolecules, metabolic pathways, and biochemical genetics. Prerequisite: CHM 112 or divisional approval. Lecture 3 hours per week.

Childhood Development

CHD 118 Language Arts for Young Children (3 Cr.)

Presents techniques and methods for encouraging the development of language and perception skills in young children. Stresses improvement of vocabulary, speech and methods to stimulate discussion. Surveys children's literature, examines elements of quality story telling and story reading, and stresses the use of audiovisual materials. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

CHD 120 Introduction to Early Childhood Education (3 Cr.)

Introduces early childhood development through activities and experiences in nursery, pre-kindergarten, kindergarten, and primary programs. Investigates classroom organization and procedures, and use of classroom time and materials, approaches to education for young children, professionalism, and curricular procedures. Lecture 3 hours per week.

CHD 121-122 Childhood Educational Development I-II (3 Cr.) (3 Cr.)

Focuses attention on the observable characteristics of children from birth through adolescence. Concentrates on cognitive, physical, social, and emotional changes that occur. Emphasizes the relationship between development and a child's interactions with parents, siblings, peers, and teachers. Lecture 3 hours per week.

CHD 125 Creative Activities for Children (3 Cr.)

Prepares individuals to work with young children in the arts and other creative age-appropriate activities. Investigates affective classroom experiences and open-ended activities. Lecture 2 hours per week. Laboratory 2 hours per week. Total 4 hours per week.

CHD 126 Science and Math Concepts for Children (3 Cr.)

Teaches selecting developmentally appropriate learning activities using materials to develop logical thinking skills in the child. Lecture 3 hours per week.

CHD 145 Teaching Art, Music, and Movement to Children (3 Cr.)

Provides experiences in developing the content, methods, and materials for directing children in art, music, and movement activities. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

CHD 205 Guiding the Behavior of the Children (3 Cr.)

Explores positive ways to build self-esteem in children and help them develop self-control. Presents practical ideas for encouraging pro-social behavior in children and emphasizes basic skills and techniques in classroom management. Lecture 3 hours per week.

CHD 210 Introduction to Exceptional Children (3 Cr.)

Reviews the history of education for exceptional children. Studies the characteristics associated with exceptional children. Explores positive techniques for managing behavior and adapting materials for classroom use. Lecture 3 hours per week.

CHD 220 Introduction to School-Age Child Care (3 Cr.)

Examines the purposes of school-age child care in today's society, the role of adults within school-age childcare, and the state of the profession of school-age childcare. Lecture 3 hours per week.

CHD 230 Behavior Management for School-Age Child Care (3 Cr.)

Discusses the development of social skills that school-age children need for self-management, including self-discipline, self-esteem, and coping with stress and anger. Explores way to effectively guide and discipline school-age children, focusing on how adults can facilitate positive pro-social and self-management skills. Lecture 3 hours per week.

Civil Engineering Technology

CIV 171 Surveying I (3 Cr.)

Introduces surveying equipment, procedures, and computations including adjustment of instruments, distance measurement, leveling, angle measurement, traversing, traverse adjustments, area computations, and introduction to topography. Lecture 2 hours per week. Laboratory 3 hours. Total 5 hours per week.

CIV 172 Surveying II (3 Cr.)

Introduces surveys for transportation systems including the preparation and analysis of topographic maps, horizontal and vertical curves, earthwork, and other topics related to transportation construction. Prerequisite: CIV 171. Lecture 2 hours per week. Laboratory 3 hours. Total 5 hours per week.

CIV 220 Structural Analysis (3 Cr.)

Focuses on the analysis of statically determinate and indeterminate structures based on principles of statics, strength of materials, and geometric conditions. Prerequisite: EGR 136 or equivalent. Lecture 3 hours per week.

CIV 225 Soil Mechanics (2 Cr.)

Focuses on soil and its relationship to engineering construction. Includes soil composition and structure, weight-volume relationships, sampling procedures, classification systems, water in soil, stresses, strains, bearing capacity, settlement and expansion, compaction, stabilization, and introduction to foundations and retaining walls. Lecture 2 hours per week.

CIV 226 Soil Mechanics Laboratory (1 Cr.)

Introduces practical soil sampling; classification of unified, ASTM and AASHTO specifications; laboratory testing of soils to predict engineering performance. Laboratory 2 hours per week.

Computer Science**CSC 155 Computer Concepts and Applications (3 Cr.)**

Introduces basic hardware and software concepts of computer usage and the computer's impact on society. Includes applications of various types of software to illustrate how computers are used in sciences, social sciences, humanities, and education. Covers the use of an operating system, word processing, spreadsheets, e-mail, library access, database access and retrieval, and the Internet. Lecture 3 hours per week.

CSC 201 Computer Science I (4 Cr.)

Introduces algorithm and problem-solving methods. Emphasizes structured programming concepts, elementary data structures, and the study and use of a high level programming language. Co-requisite: CSC 100 or equivalent, ITE 115 or CSC 155, and MTH 173 or equivalent or divisional approval. Lecture 4 hours per week.

CSC 202 Computer Science II (4 Cr.)

Examines data structure and algorithm analysis. Covers data structures (including sets, strings, stacks, queues, arrays, records, files, linked lists, and trees), abstract data types, algorithm analysis (including searching and sorting methods), and file structures. Prerequisite: CSC 201. Co-requisite: MTH 174 or equivalent or divisional approval. Lecture 4 hours per week.

CSC 205 Computer Organizations (3-4 Cr.)

Examines the hierarchical structure of computer architecture. Focuses on multi-level machine organization. Uses a simple assembler language to complete programming projects. Includes processors, instruction, execution, addressing techniques, data representation and digital logic. Lecture 3-4 hours per week.

CSC 206 Assembly Language (3 Cr.)

Examines assembly language programming. Includes the use of macros, linkers, loaders, assemblers and interfacing of assembly language with hardware components. Prerequisite: CSC 205 or permission of the instructor. Lecture 3 hours per week.

Dental Hygiene**DNH 111 Oral Anatomy (2 Cr.)**

Studies the morphology and function of the oral structures with emphasis on the primary and permanent dentition, eruption sequence, occlusion, and intra-arch relationships. Lecture 2 hours per week.

DNH 115 Histology/Head and Neck Anatomy (3 Cr.)

Presents a study of the microscopic and macroscopic anatomy and physiology of the head, neck, and oral tissues. Includes embryologic development and histologic components of the head, neck, teeth, and periodontium. Lecture 3 hours per week.

DNH 120 Management of Emergencies (1-2 Cr.)

Studies the various medical emergencies and techniques for managing emergencies in the dental setting. Additional practical applications and simulations of emergencies may be conducted to enhance basic knowledge from the one-hour lecture component. Lecture 1-2 hours per week.

DNH 130 Oral Radiography for the Dental Hygienist (2-3 Cr.)

Studies radiation physics, biology, safety, and exposure techniques for intra- and extra-oral radiographic surveys. Laboratory provides practice in exposure, processing methods, mounting, and interpretation of normal findings. Lecture 1-2 hours per week. Laboratory 3 hours. Total 4-5 hours per week.

DNH 141 Dental Hygiene I (5 Cr.)

Introduces clinical knowledge and skills for the performance of dental hygiene services; basic skill components, lab manikins, and client practice. Lecture 3 hours per week. Clinic 6 hours. Total 9 hours per week.

DNH 142 Dental Hygiene II (5 Cr.)

Exposes students to instrument sharpening, time management, and client education techniques and methods. Provides supervised clinical practice in the dental hygiene clinic with emphasis on developing client treatment and instrument skills. Prerequisite: DNH 141. Lecture 1-2 hours per week. Clinical 9-12 hours. Total 11-13 hours per week.

DNH 145 General and Oral Pathology (2 Cr.)

Introduces general pathology with consideration of the common diseases affecting the human body. Particular emphasis is given to the study of pathological conditions of the mouth, teeth, and their supporting structures. Prerequisite: DNH 113, 114, or 115. Lecture 2 hours per week.

DNH 146 Periodontics for the Dental Hygienist (2 Cr.)

Introduces the theoretical and practical study of various concepts and methods used in describing, preventing, and controlling periodontal disease. Presents etiology, microbiology, diagnosis, treatment and prognosis of diseases. Lecture 2 hours per week.

DNH 150 Nutrition (2 Cr.)

Studies nutrition as it relates to dentistry and general health. Emphasizes the principles of nutrition as applied to the clinical practice of dental hygiene. Lecture 2 hours per week.

DNH 214 Practical Materials for Dental Hygiene (2 Cr.)

Studies the current technologic advances, expanded functions, and clinical/laboratory materials used in dental hygiene practice. Provides laboratory experience for developing skills in the utilization and applications of these technologies and functions. Lecture 1 hour per week. Laboratory 2 hours. Total 3 hours per week.

DNH 216 Pharmacology (2 Cr.)

Studies the chemical and therapeutic agents used in dentistry, including their preparation, effectiveness, and specific application. Lecture 2 hours per week.

DNH 226 Public Health Dental Hygiene I (2 Cr.)

Studies and compares concepts of delivery of health care, applying the public health delivery model. Utilizes epidemiologic methods, research and biostatistics as applied to oral health program planning, implementation, and evaluation. Incorporates and applies current health issues and trends. Lecture 2 hours per week.

DNH 227 Public Health Dental Hygiene II (1 Cr.)

Applies concepts of public health program planning through student directed community projects with an emphasis on preventative oral health education. Includes development of table clinics, bulletin board, and volunteer service in the community. Prerequisite: DNH 226. Laboratory 3 hours per week.

DNH 230 Office Practice and Ethics (1 Cr.)

Studies the principles of dental ethics and economics as they relate to the dental hygienist. The course also includes a study of jurisprudence and office procedures. Lecture 1 hour per week.

DNH 244 Dental Hygiene IV (5 Cr.)

Introduces advanced skills and the dental hygienist's role in dental specialties. Includes supervised clinical practice in the dental hygiene clinic and/or off-campus clinical rotations at various community facilities. Emphasizes treatment of clients demonstrating periodontal involvement, stressing application and correlation of knowledge and skills from

previous semesters. Prerequisite: DNH 143 or DNH 190. Lecture 1 hour per week. Clinic 12 hours. Total 13 hours per week.

DNH 245 Dental Hygiene V (5 Cr.)

Exposes student to current advances in dentistry. Includes supervised clinical practice in the dental hygiene clinic and/or off-campus clinical rotations at various community facilities. Emphasis is placed on synthesis of knowledge from previous semesters, treatment of clients with moderate to advanced periodontal involvement and improving clinical speed while maintaining quality in preparation for practice. Prerequisite: DNH 244. Lecture 1 hour per week. Clinic 12 hours. Total 13 hours per week.

Drafting

DRF 160 Machine Blueprint Reading (3 Cr.)

Introduces interpreting of various blueprints and working drawings. Applies basic principles and techniques such as visualization of an object, orthographic projection, technical sketching and drafting terminology. Requires outside preparation. Lecture 3 hours per week.

DRF 161 Blueprint Reading I (1-2 Cr.)

Teaches the application of basic principles, visualization, orthographic projection, detail of drafting shop process and terminology, assembly drawings and exploded views. Considers dimensioning, changes and corrections, classes of fits, tolerances and allowances, sections and convention in blueprint reading. Lecture 1 hour per week. Laboratory 3 hours. Total 4 hours per week.

DRF 162 Blueprint Reading II (2 Cr.)

Emphasizes industrial prints, auxiliary views, pictorial drawings, simplified drafting procedures, production drawing, operation sheets, tool drawing, assembly drawings, and detailed prints. Prerequisite: DRF 171. Lecture 1 hour per week. Laboratory 3 hours. Total 4 hours per week.

DRF 165 Architectural Blueprint Reading (3 Cr.)

Emphasizes reading, understanding, and interpreting standard types of architectural drawings including plans, elevation, section and details. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

DRF 175 Schematics and Mechanical Diagrams (2 Cr.)

Covers interpretation of basic shop drawings, conventional symbols, common electrical and electronics symbols, wiring diagrams, hydraulic and pneumatic symbols, schematic drawings, and piping diagrams. Lecture 2 hours per week.

DRF 211 Advanced Technical Drafting I (3 Cr.)

Teaches use of drafting equipment, with possible CAD applications, emphasizing knowledge and skill required for industrial drawing. May include piping, gearing, geometric and positional tolerances, drawing layout, and lettering of all types. Prerequisite: DRF 225. Lecture 2 hours per week. Laboratory 3 hours. Total 5 hours per week.

DRF 225 Machine Drawing and Design (3 Cr.)

Teaches design of basic machine elements and the analysis of linear and geometric tolerancing including the preparation of complete design and production drawings. Prerequisite: EGR 110. Lecture 2 hours per week. Laboratory 3 hours. Total 5 hours per week.

DRF 231 Computer Aided Drafting I (2-3 Cr.)

Teaches computer aided drafting concepts and equipment design to develop a general understanding of components and operate a typical CAD system. Prerequisite: EGR 110 or divisional approval. Lecture 1-2 hours per week. Laboratory 2-3 hours. Total 3-5 hours per week.

DRF 232 Computer Aided Drafting II (2-3 Cr.)

Teaches advanced operation in computer-aided drafting. Prerequisite: DRF 231. Lecture 1-2 hours per week. Laboratory 2-3 hours. Total 3-5 hours per week.

DRF 233 Computer Aided Drafting III (3 Cr.)

Introduces programming skills and exposes student to geometric modeling. Focuses on proficiency in production drawing using a CAD system. Prerequisite: DRF 232. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

Economics

ECO 120 Survey of Economics (2-3 Cr.)

Presents a broad overview of economic theory, history, development, and application. Introduces terms, definitions, policies, and philosophies of market economies. Provides some comparison with other economic systems. Includes some degree of exposure to microeconomic and macroeconomic concepts. Reading prerequisite required. Lecture 2-3 hours per week.

ECO 201 Principles of Macroeconomics (3 Cr.)

Introduces macroeconomics including the study of Keynesian, classical, monetarist principles and theories, the study of national economic growth, inflation, recession, unemployment, financial markets, money and banking, the role of government spending and taxation, along with international trade and investments. Reading prerequisite required. Lecture 3 hours per week.

ECO 202 Principles of Microeconomics (3 Cr.)

Introduces the basic concepts of microeconomics. Explores the free market concepts with coverage of economic models and graphs, scarcity and choices, supply and demand, elasticities, marginal benefits and costs, profits, and production and distribution. Reading prerequisite required. Lecture 3 hours per week.

ECO 231-232 Principles of Money and Banking I & II (3 Cr.) (3 Cr.)

Discusses the functions of money in modern economy. Analyzes the evolution and operation of the commercial and central banking systems. Presents developments in monetary theory. Relates theory to policy considerations including government finance and debt management. Reading prerequisite required. Lecture 3 hours per week.

ECO 245 Contemporary Economic Issues (3 Cr.)

Presents major contemporary economic issues of the day. May focus on issues such as energy, the environment, the farmer, the national debt, taxes, international trade, consumerism, and economic trends. Emphasizes proper analysis of economic problems and formulation of corrective policy. Develops the student's critical faculties by exposure to opinions of eminent economists and may offer open classroom debate. Prerequisite: ECO 201. Reading prerequisite required. Lecture 3 hours per week.

Education

EDU 100 Introduction to Education (1 Cr.)

Provides an overview of teaching as a career with orientation to theories, practices, responsibilities, guidelines, current trends and issues in education. Lecture 1 hour per week.

EDU 121 Childhood Educational Development I (3 Cr.)

Focuses attention on the observable characteristics of children from birth through adolescence. Concentrates on cognitive, physical, social, and emotional changes that occur. Emphasizes the relationship between development and a child's interactions with parents, siblings, peers, and teachers. Lecture 3 hours per week.

EDU 200 Introduction to Teaching as a Profession (3 Cr.)

Provides an orientation to the teaching profession in Virginia, including historical perspectives, current issues, and future trends in education on the national and state levels. Emphasizes information about teacher licensure examinations, steps to certification, teacher preparation and induction programs, and attention to critical shortage areas in Virginia.

Includes supervised field placement (recommended: 40 clock hours) in a K-12 school. Prerequisite: successful completion of 24 credits of transfer courses. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

EDU 235 Health, Safety, and Nutrition Education (3 Cr.)

Focuses on the physical needs of children and explores strategies to meet these needs. Emphasizes positive health routines, hygiene, nutrition, feeding and clothing habits, childhood diseases, and safety. Places emphasis on the development of food habits and concerns in food and nutrition. Describe symptoms and reporting procedures for child abuse. Variable lecture/laboratory hours per week.

Electrical Technology

ELE 126 Electricity and Shop Power Distribution (2 Cr.)

Teaches basic electricity and shop power distribution systems to acquaint the industrial machine mechanic with the nature and requirements of electrical power and machinery. Includes the nature of electricity, basic DC and AC circuits, power requirements, protection systems, basic measurements and safety precautions. Lecture 1 hour per week. Laboratory 2 hours. Total 3 hours per week.

ELE 133-134 Practical Electricity I-II (3 Cr.) (3 Cr.)

Teaches the fundamentals of electricity, terminology, symbols, and diagrams. Includes the principles essential to the understanding of general practices, safety and the practical aspects of residential and non-residential wiring and electrical installation, including fundamentals of motors and controls. Pre/Co-requisite: MTH 105 or equivalent. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

ELE 135 National Electrical Code - Residential (3-4 Cr.)

Studies purposes and interpretations of the national electrical code that deals with single and multi-family dwellings, including state and local regulations. Prerequisite: ELE 133 or instructor approval. Lecture 2-3 hours per week. Laboratory 2-4 hours. Total 4-5 hours per week.

ELE 137 National Electrical Code - Industrial (3 Cr.)

Provides comprehensive study of the purpose and interpretations of the National Electrical Code that deal primarily with industrial wiring methods, including state and local regulations. Prerequisite: ELE 156 or instructor approval. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

ELE 140 Basic Electricity and Machinery (4 Cr.)

Studies direct and alternating current principles, resistors, magnetism, capacitors, protection systems, switches, controls, and power distribution for industrial machine shops. Emphasizes test procedures and safety. May require preparation of a report as an out-of-class activity. Lecture 3 hours per week. Laboratory 2 hours. Total 5 hours per week.

ELE 156 Electrical Control Systems (3 Cr.)

Introduces troubleshooting and servicing electrical controls, electric motors, motor controls, motor starters, relays, overloads, instruments and control circuits. May include preparation of a report as an out-of-class activity. Prerequisite: ELE 159 or instructor approval. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

ELE 159 Electrical Motors (3 Cr.)

Teaches practical applications and fundamentals of A.C. and D.C. machines. Includes the concepts of magnetism and generators used in electrical motor applications. Prerequisite: ELE 126 or 134 or instructor approval. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

ELE 239 Programmable Controllers (2-3 Cr.)

Deals with installation, programming, interfacing, and concepts of trouble shooting programmable controllers. Prerequisite: ELE 156 plus demonstrated computer knowledge or instructor approval. Lecture 2 hours per week.

Emergency Medical Technology

EMT 105 First Responder (2-3 Cr.)

Provides knowledge and proficiency in basic life support and in actions necessary to minimize patient discomfort and prevention of further complications. Meets requirements for Virginia certification as a first responder. Lecture 3 hours per week.

EMT 111 Emergency Medical Technology I (3 Cr.)

Provides instruction in basic life support and physical assessment. Introduces role and responsibilities of the emergency medical technician/ambulance. Includes emergency operations, anatomy and physiology, bleeding, shock, MASTrousers, cardio-pulmonary resuscitation, soft-tissue injuries, fractures and dislocations, abdominal and chest injuries. Required for certification as a Virginia EMT/B. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

EMT 112 Emergency Medical Technology II (3 Cr.)
Continues material begun in EMT 111. Includes major trauma and medical emergencies, emergency child-birth procedures, lifting and moving patients, vehicle extrication, pediatric and environmental emergencies, and mass casualty situations. Required for certification as a Virginia EMT/B. Prerequisite: EMT 111. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

EMT 225 Clinical Experiences for the Cardiac Care Technician (3 Cr.)

Deals with in-hospital clinical rotations in emergency departments, intensive and coronary care units, operating and recovery rooms, level-one trauma centers, and intravenous teams. Required for certification as a Virginia EMT-Cardiac and/or Paramedic. Runs concurrently with EMT 231. Laboratory 6 hours per week.

EMT 226 Dysrhythmia Recognition and Management (3 Cr.)

Focuses on the interpretation of normal electrocardiograms and recognition and management of basic dysrhythmias. Also covers the basic anatomy and physiology of the cardiovascular system and pathophysiology and management of a cardiovascular dysfunction. Required for Virginia certification as an EMT-Cardiac and/or Paramedic. Prerequisite: EMT/B certification or equivalent. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

EMT 231 Paramedic Procedures I (5 Cr.)

Prepares for functioning as an advanced life support provider as defined by the Department of Transportation's National Paramedic curriculum. Includes assessment, pathophysiology, and treatment for shock, calculation of drug dosages and drip rates, and respiratory emergencies. Required for Virginia certification as EMT-Cardiac and Paramedic. Prerequisite: EMT 220. Lecture 4 hours per week. Laboratory 2 hours. Total 6 hours per week.

EMT 232 Paramedic Procedures II (6 Cr.)

Continues the DOT's National Paramedic curriculum from EMT 231. Includes pathophysiology, assessment, and management of neurological, musculoskeletal, psychiatric, and obstetrical/gynecological emergencies. Required for certification as a Virginia and/or National Registry Paramedic. Prerequisites: EMT 231, EMT 225. Lecture 5 hours per week. Laboratory 2 hours. Total 7 hours per week.

EMT 235 Clinical Experiences for the Paramedic (4 Cr.)

Deals with in-hospital clinical rotations in labor and delivery, newborn nurseries, pediatric units, burn centers, psychiatric units or mobile crisis teams, and

pathology. Required for certification as a Virginia and National Registry Paramedic. Runs concurrently with EMT 232. Laboratory 8 hours per week.

Engineering

EGR 110 Engineering Graphics (3 Cr.)

Presents theories and principles of orthographic projection. Studies multi-view, pictorial drawings and sketches, geometric construction, sectioning, lettering, tolerancing, dimensioning, and auxiliary projections. Studies the analysis and graphic presentation of space relationships of fundamental geometric elements; points, lines, planes, and solids. Preparation of drawings using both manual techniques and Computer Aided Drafting (CAD). Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

EGR 115 Engineering Graphics (2-3 Cr.)

Applies principles of orthographic projection, and multi-view drawings. Teaches descriptive geometry including relationships of points, lines, planes and solids. Introduces sectioning, dimensioning and computer graphic techniques. Includes instruction in Computer Aided Drafting. Lecture 1-2 hours per week. Laboratory 3 hours. Total 4-5 hours per week.

EGR 120 Introduction to Engineering (1-2 Cr.)

Introduces the engineering profession, professional concepts, ethics, and responsibility. Reviews hand calculators, number systems, and unit conversions. Introduces the personal computer and operating systems. Includes engineering problem solving techniques using computer software. Lecture 0-2 hours. Laboratory 0-3 hours. Total 1-4 hours per week.

EGR 126 Computer Programming for Engineers (3 Cr.)

Introduces computers, their architecture and software. Teaches program development using flowcharts. Solves engineering problems involving programming in languages such as FORTRAN and PASCAL. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

EGR 135 Statics for Engineering Technology (3 Cr.)

Introduces Newton's Laws, resultants and equilibrium of force systems, analysis of trusses and frames. Teaches determination of centroids, distributed loads and moments of inertia. Covers dry friction and force systems in space. Prerequisite: MTH 115. Lecture 3 hours per week.

EGR 136 Strength of Materials for Engineering Technology (3 Cr.)

Presents concepts of stress and strain. Focuses on analysis of stresses and deformations in loaded members, connectors, shafts, beams, columns and combined stress. Prerequisite: EGR 135. Lecture 3 hours per week.

EGR 206 Engineering Economics (2-3 Cr.)

Presents economic analysis of engineering alternatives. Studies economic and cost concepts, calculation of economic equivalence, comparison of alternatives, replacement economy, economic optimization in design and operation, depreciation, and after tax analysis. Lecture 2-3 hours per week.

EGR 245 Engineering Mechanics-Dynamics (3 Cr.)

Presents approach to kinematics of particles and linear and curvilinear motion. Includes kinematics of rigid bodies in plane motion. Teaches Newton's second law, work-energy and power, impulse and momentum, and problem solving using computers. Prerequisite: EGR 135. Lecture 3 hours per week.

EGR 247 Mechanics of Materials Laboratory (1 Cr.)

Examines mechanical behavior of bars, rods, shafts, tubes and beams subjected to various types of loading. Introduces experimental stress analysis techniques, such as the use of strain gages and data reduction. Laboratory 2 hours per week.

English

ENG 1 Preparing for College Writing I (1-6 Cr.)

Helps students discover and develop writing processes needed to bring their proficiency to the level necessary for entrance into their respective curricula. Guides students through the process of starting, composing, revising, and editing. Variable hours per week.

ENG 4 Reading Improvement I (1-6 Cr.)

Helps students improve their reading processes to increase their understanding of reading materials. Includes word forms and meanings, comprehension techniques, and ways to control reading pace. Variable hours per week.

ENG 111-112 College Composition I-II (3 Cr.) (3 Cr.)

Develops writing ability for study, work, and other areas of writing based on experience, observation, research, and reading of selected literature. Guides students in learning writing as a process: understanding audience and purpose, exploring ideas and information, composing, revising, and editing. Supports writing by integrating experiences in thinking, reading, listening, and speaking. Prerequisite:

placement testing approval for ENG 111. ENG 111 for ENG 112. Lecture 3 hours per week.

ENG 115 Technical Writing (3 Cr.)

Develops ability in technical writing through extensive practice in composing technical reports and other documents. Guides students in achieving voice, tone, style, and content in formatting, editing, and graphics. Introduces students to technical discourse through selected reading. Lecture 3 hours per week. Prerequisite: placement testing approval for ENG 111 or instructor approval.

ENG 120 Survey of Mass Media (3 Cr.)

Examines radio, television, newspapers, magazines, books, and motion pictures. Emphasizes the nature of change in, and the social implications of, communications media today. Lecture 3 hours per week.

ENG 121-122 Introduction to Journalism (3 Cr.) (3 Cr.)

Introduces students to all news media, especially news gathering and preparation for print. Prerequisite: ENG111 or 112 or divisional approval. Lecture 3 hours per week.

ENG 193 Technical Editing (3 Cr.)

Prepares students for substantive, comprehensive editing and design of a wide range of technical documents including technical manuals, proposals, and research reports. Examines strategies for document management and explores theoretical foundations for editing decisions. Focuses on practical processes for technical editing, copyediting, and proofreading, utilizing hardcopy and electronic approaches. Reviews grammar, usage, and punctuation rules. Lecture 3 hours per week.

ENG 195 English Honors Seminar (1 Cr.)

Explores works on an annual theme selected by the English faculty. Presents varied faculty and student viewpoints and encourages students to research and present individual aspects of theme. Offered for honors credit. Students may enroll more than once. Instructor approval required.

ENG 210 Advanced Composition (3 Cr.)

Helps students refine skills in writing non-fiction prose. Guides development of individual voice and style. Introduces procedures for publication. Prerequisite: ENG 112. Lecture 3 hours per week.

ENG 211-212 Creative Writing I-II (3 Cr.) (3 Cr.)

Introduces the student to the fundamentals of writing imaginatively. Students write in forms to be selected from poetry, fiction, drama, and essays. Prerequisite: ENG 112. Lecture 3 hours per week.

ENG 215-216 Creative Writing - Fiction I-II (3 CR)

Introduces the fundamentals and techniques of writing short and long fiction. Lecture 3 hours per week. Prerequisite: ENG 112.

ENG 236 Introduction to the Short Story (3 CR)

Examines selected short stories emphasizing the history of the genre. Involves critical reading and writing. Prerequisite ENG 112. Lecture 3 hours.

ENG 241-242 Survey of American Literature I-II (3 Cr.) (3 Cr.)

Examines American literary works from colonial times to the present, emphasizing the ideas and characteristics of our national literature. Involves critical reading and writing. Prerequisite: ENG 112. Lecture 3 hours per week.

ENG 243-244 Survey of English Literature I-II (3 Cr.) (3 Cr.)

Studies major English works from the Anglo-Saxon period to the present, emphasizing ideas and characteristics of the British literary tradition. Involves critical reading and writing. Prerequisite: ENG 112. Lecture 3 hours per week.

ENG 246 Major American Writers (3 Cr.)

Examines major writers of American literary history. Involves critical reading and writing. Prerequisite: ENG 112. Lecture 3 hours per week.

ENG 251-252 Survey of World Literature I & II (3 Cr.) (3 Cr.)

Examines major works of world literature. Involves critical reading and writing. Prerequisite: ENG 112. Lecture 3 hours per week.

ENG 255 Major Writers in World Literature (3 CR)

Examines major writers selected from a variety of literary traditions. Involves critical reading and writing. Prerequisite ENG 112. Lecture 3 hours per week.

ENG 261-262 Advanced Creative Writing I-II (3 Cr.) (3 Cr.)

Guides the student in imaginative writing in selected genres on an advanced level. Prerequisite: ENG 112. Lecture 3 hours per week.

ENG 276 Southern Literature (3 CR)

Examines the themes and techniques of selected writers dealing with the American South as a distinctive cultural entity. Involves critical reading and writing. Prerequisite ENG 112. Lecture 3 hours per week.

ENG 278 Appalachian Literature (3 CR)

Examines selected works of outstanding authors of the Appalachian region. Involves critical reading and writing. Prerequisite ENG 112. Lecture 3 hours per week.

ENG 280 Writing User Manuals (3 CR)

Provides instruction on how to design, write and test a manual. Focuses on the principles used in writing technical manuals, the document process, design and drafting procedures, and finally, testing and revising the manual. Prerequisite: ENG 112 or division approval. Lecture 3 hours per week.

ENG 293 Special Studies in Technical Writing (3 Cr.)

Teaches students about three specialized technical writing areas: Grant Proposals, Standard Operating Procedures, and Government Documents. Grant Writing – focuses on grant proposals to develop new programs, support existing programs, and strengthen operating budget; provides hands-on practice producing a grant proposal for a hypothetical or actual grant. Standard Operating Procedures – covers the procedure-writing process and helps ensure that procedures meet primary audience needs; focuses on design procedures, regulatory requirements, quality standards, and common industry practices; includes practice in gathering information and developing an effective procedure format. Government Documents – exposes students to a wide range of documents and forms created for county, state, and federal agencies and gives them practice in writing and re-writing a wide sampling of government documents with a special emphasis on plain language. Lecture 3 hours per week.

Electronics Technology**ETR 195 Electronic Circuits and Instrumentation (3 Cr.)**

Studies AC and DC circuits, electronic devices and circuits, AS and DC machines, and power supplies and controls. Emphasizes instrumentation for electrical measurements. This is a survey course for non-electrical/electrical students.

Equine Management**AGR 126 Horse Genetics and Reproduction (3 Cr.)**

Teaches fundamental principles of equine genetics and selection, equine reproductive anatomy and physiology, management of the broodmare and stallion, applied reproductive management, and neonatal care. Lecture 3 hours per week.

AGR 127 Horse Business Management and Marketing (2 Cr.)

Introduces the concepts of horse-related small business management and marketing appropriate to horses as a profit making business. Lecture 2 hours per week.

AGR 155 Theory of Horse Behavior and Training (2 Cr.)

Introduces the theory of horse behavior and response to training methods with an emphasis on various methods of horse training for riding purposes. Teaches concepts useful in daily horse handling and evaluation of training procedures. Lecture 2 hours per week.

AGR 156 Equine Conditioning for Performance (2 Cr.)

Teaches theory and practice of equine sports medicine techniques for conditioning the equine athlete for various types of performance. Lecture 2 hours per week.

AGR 157 Horse Nutrition and Feeding (2 Cr.)

Specific and detailed study of nutritional requirements of the horse, feeds and feeding practices, and nutritionally related disorders. Lecture 2 hours per week.

AGR 158 Preventive Health Care for the Horse (2 Cr.)

Introduction to principles of disease causation, spread, prevention, and treatment with emphasis on practical methods for the horse owner. Lecture 2 hours per week.

AGR 219 Advanced Horse Management (2 Cr.)

Studies the diseases and unsoundness of the horse, equine nutritional requirements, and stable management. Includes equine behavior and training, broodmare and foal management, and other relevant topics. Lecture 2 hours per week.

EQU 110 Fundamentals of Horse Management (3 Cr.)

Surveys horse breeds, their functions and uses. Addresses horse conformation facilities, and basic feeds and feeding. Includes study of principles of horse nutrition. Lecture 3 hours per week.

Financial Services

FIN 107 Personal Finance (3 Cr.)

Presents a framework of personal money management concepts, including establishing values and goals, determining sources of income, managing income, preparing a budget, developing consumer buying ability, using credit, understanding savings and insurance, providing for adequate retirement, and estate planning. Lecture 3 hours per week.

FIN 127 Law and Banking: Applications (3 Cr.)

Introduces the laws pertaining to secured transactions, letters of credit, and the bank collection process. Focuses on check losses and a range of legal issues related to collateral and default. (AIB Approved). Lecture 3 hours per week.

FIN 215 Financial Management (3 Cr.)

Introduces basic financial management topics including statement analysis, working capital, capital budgeting, and long-term financing. Focuses on Net Present Value and Internal Rate of Return techniques, lease vs. buy analysis, and Cost of Capital computations. Uses problems and cases to enhance skills in financial planning and decision-making. Reading prerequisite required. Lecture 3 hours per week.

Forestry

FOR 135 Wildlife and Fisheries Management (4 Cr.)

Introduces the principles of wildlife and fisheries management. Emphasizes practices in the eastern United States. Lecture 3 hours per week. Laboratory 3 hours. Total 6 hours per week.

FOR 136 Habitat and Food Plant Identification (3 Cr.)

Examines taxonomy, field identification, and management of the important habitat and food plants of value to wildlife. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

French

FRE 101-102 Beginning French I-II (4-5Cr.) (4-5Cr.)

Introduces understanding, speaking, reading, and writing skills and emphasizes basic French sentence structure. Lecture 4 hours per week. May include one additional hour of oral practice per week.

FRE 201-202 Intermediate French I-II (3-4 Cr.) (3-4 Cr.)

Continues to develop understanding, speaking, reading, and writing skills. French used in the classroom. Prerequisite: FRE 102 or equivalent. Lecture 3-4 hours per week. May include one additional hour of oral practice per week.

Geographic Information Systems

GIS 200 Geographical Information Systems I (4 Cr.)

Provides hands-on introduction to a dynamic desktop GIS (Geographic Information System). Introduces the components of a desktop GIS and their functionality. Emphasizes manipulation of data for the purpose of analysis, presentation, and decision-making. Prerequisite: ITE 115 or CSC 155 or instructor approval. ITE 150 strongly recommended. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

GIS 201 Geographical Information Systems II (4 Cr.)

Provides a continuation of GIS 200, with emphasis on advanced topics in problem solving, decision-making, modeling, programming, and data management. Covers map projections and data formats, and methods of solving the problems they create.

Prerequisite: GIS 200. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

Geography**GEO 200 Introduction to Physical Geography (3 Cr.)**

Studies major elements of the natural environment including earth/sun relationships land forms, weather and climate, natural vegetation and soils.

Introduces the student to types and uses of maps. Lecture 3 hours per week.

GEO 210 People and the Land: Intro to Cultural Geography (3 Cr.)

Focuses on the relationship between culture and geography. Presents a survey of modern demographics, landscape modification, material and non-material culture, language, race and ethnicity, religion, politics, and economic activities. Introduces the student to types and uses of maps. Lecture 3 hours per week.

GEO 220 World Regional Geography (3 Cr.)

Studies physical and cultural characteristics of selected geographical regions of the world. Focuses upon significant problems within each of the regions, and examines the geographical background of those problems. Introduces the student to types and uses of maps. Lecture 3 hours per week.

GEO 221-222 Regions of the World I-II (3 Cr.) (3 Cr.)

Presents an overview of physical and cultural characteristics of selected geographical regions of the world. Focuses upon significant problems within each of the regions. Studies the European cultural sphere including Europe, Soviet Union, the Americans and Australia and the emerging nations in Africa, Southwest Asia and the Orient. Introduces the student to types and uses of maps. Lecture 3 hours per week.

Geology**GOL 105 Physical Geology (4 Cr.)**

Introduces the composition and structure of the earth and modifying agency and processes. Investigates the formation of minerals and rocks, weathering, erosion, earthquakes, and crustal deformation. Reading prerequisite required. Lecture 3 hours per week. Laboratory 3 hours. Total 6 hours per week.

GOL 106 Historical Geology (4 Cr.)

Traces the evolution of the earth and life through time. Presents scientific theories of the origin of the earth and life and interprets rock and fossil records. Reading prerequisite required. Lecture 3 hours per week. Laboratory 3 hours. Total 6 hours per week.

German**GER 101-102 Beginning German I-II (4-5 Cr.) (4-5 Cr.)**

Introduces understanding, speaking, reading, and writing skills and emphasizes basic German sentence structures. Lecture 4-5 hours per week. May include one additional hour of oral practice per week.

GER 201-202 Intermediate German I-II (3-4 Cr.) (3-4 Cr.)

Continues to develop understanding, speaking, reading, and writing skills. German is used in the classroom. Prerequisite: GER 102 or equivalent. Lecture 3-4 hours per week. May include one additional hour of oral practice per week.

Health**HLT 100 First Aid and Cardiopulmonary Resuscitation (2-3 Cr.)**

Focuses on the principles and techniques of safety, first aid, and cardiopulmonary resuscitation. Lecture 2-3 hours per week.

HLT 105 Cardiopulmonary Resuscitation (1 Cr.)

Provides training in coordinated mouth-to-mouth artificial ventilation and chest compression, choking, life-threatening emergencies, and sudden illness. Lecture 1 hour per week.

HLT 106 First Aid Safety (2 Cr.)

Focuses on the principles and techniques of safety and first aid. Lecture 2 hours per week.

HLT 116 Personal Wellness (2-3 Cr.)

Familiarizes students with the components of wellness, including nutrition, weight control, stress management, and physical conditioning. Includes a personal wellness plan. Lecture 2-3 hours per week.

HLT 130 Nutrition and Diet Therapy (1 Cr.)

Studies nutrients, sources, functions, and requirements with an introduction to diet therapy. Lecture 0-1 hours per week. Laboratory 0-2 hours. Total 1-2 hours per week.

HLT 138 Principles of Nutrition (2 Cr.)

Studies nutrient components of food, including carbohydrates, fats, proteins, vitamins, minerals and water. Provides a behavioral approach to nutrient guidelines for the development and maintenance of optimum wellness. Lecture 2 hours per week.

HLT 230 Principles of Nutrition and Human Development (3 Cr.)

Teaches the relationship between nutrition and human development. Emphasizes nutrients, balanced diet, weight control, and the nutritional needs of an individual. Lecture 3 hours per week.

HLT 250 General Pharmacology (2-3 Cr.)

Emphasizes general pharmacology for the health related professions covering general principles of drug actions/reactions, major drug classes, specific agent within each class, and routine mathematical calculations needed to determine desired dosages. Lecture 2-3 hours per week.

Health Information Technology**HIT 111-112 Medical Terminology I-II (3 Cr.)**

Introduces the student to the language used in the health record. Includes a system-by-system review of anatomic disease, operative terms, abbreviations, radiography procedures, laboratory tests, and pharmacology terms. Lecture 3 hours per week.

HIT 230 Information Systems and Technology in Health Care (3 Cr.)

Explores computer technology and systems application in health care. Introduces the information system life cycle. Lecture 2 hours per week. Laboratory 3. Total 5 hours per week.

HIT 253 Health Records Coding (4-5 Cr.)

Examines the development of coding classification systems. Introduces ICD-9-CM coding classification system, its format and conventions. Stresses basic coding steps and guidelines according to body systems. Provides actual coding exercises in relation to each system covered. Lecture 3-4 hours. Laboratory 1-3 hours. Total 4-7 hours per week.

HIT 254 Advanced Coding and Reimbursement (3-4 Cr.)

Stresses advanced coding skills through practical exercises using actual medical records. Introduces CPT-4 coding system and guidelines for out-patient/ambulatory surgery coding. Introduces prospective payment system and its integration with ICD-9-CM coding. Lecture 3-4 hours. Laboratory 0-3 hours. Total 3-7 hours per week.

History**HIS 111-112 History of World Civilization I-II (3 Cr.) (3 Cr.)**

Surveys Asian, African, Latin American, and European civilizations from the ancient period to the present. Lecture 3 hours per week.

HIS 121-122 United States History I-II (3 Cr.)

Surveys United States history from its beginning to the present. Reading prerequisite required. Lecture 3 hours per week.

HIS 266 Military History of the Civil War (3 Cr.)

Analyzes military campaigns of the Civil War, including factors contributing to the defeat of the Confederacy and problems created by the war. May include field trips to Civil War sites in the region. Reading prerequisite required. Lecture 3 hours per week.

HIS 267 The Second World War (3 Cr.)

Examines causes and consequences of the Second World War. Includes the rise of totalitarianism, American neutrality, military developments, the home fronts, diplomacy, and the decision to use the atomic bomb. Reading prerequisite required. Lecture 3 hours per week.

HIS 269 Civil War and Reconstruction (3 Cr.)

Studies factors that led to the division between the States. Examines the war, the home fronts, and the era of Reconstruction. Lecture 3 hours per week.

HIS 276 United States History Since World War II (3 Cr.)

Investigates United States history from 1946 to the present, studying both domestic developments and American involvement in international affairs. Reading prerequisite required. Lecture 3 hours per week.

Horticulture**HRT 100 Introduction to Horticulture (3 Cr.)**

Introduces commercial horticulture industry with emphasis on career opportunities. Examines equipment, facilities, and physical arrangements of production, wholesale and retail establishments. Surveys individual areas within horticulture industry. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

HRT 111 Landscape Horticulture I (3 Cr.)

Teaches horticulture and landscaping for home planning and planting. Covers plant taxonomy, plant selection, soil testing, fertilizers, and pest control. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

HRT 115 Plant Propagation (3 Cr.)

Teaches principles and practices of sexual and asexual methods. Examines commercial and home practices. Provides experience in techniques using seed-spores, cuttings, grafting, budding, layering and division. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

HRT 121 Greenhouse Crop Production I (3 Cr.)

Examines commercial practices related to production of floricultural crops. Considers production requirements, environmental control and management, and cultural techniques affecting production of seasonal crops. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

HRT 122 Greenhouse Crop Production II (3 Cr.)

Continues commercial practices related to production of floriculture crops. Considers production requirements, environmental control and management, and culture techniques. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

HRT 150 Theory of Landscape Design (3 Cr.)

Presents the theoretical aspects of landscape planning and design. Uses theory to analyze and solve design problems. Lecture 2-3 hours per week.

HRT 201-202 Landscape Plants I-II (3-4 Cr.)(3-4 Cr.)

Studies in detail landscape use of various plant materials. Considers ornamental value, growth habit, identification, and limitations. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

HRT 227 Professional Landscape Management (3 Cr.)

Focuses on basic practices and techniques involving landscape management. Includes development of a year-round management calendar and preparation of bid and contract proposals. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

HRT 235 Landscape Drawing (3 Cr.)

Teaches students the use of drafting equipment. Emphasizes drawing techniques and use of media. Includes hard line and freestyle landscape drawing. Lecture 2 hours per week. Laboratory 3 hours. Total 5 hours per week.

HRT 236 Interior Landscaping (2 Cr.)

Examines principles and practices of interior landscaping in residential and commercial buildings. Covers design, selection, planting, and maintenance of plant materials suitable for indoor use. Includes assessment of client's needs, preparation of contracts and specifications, and construction materials. Lecture 1 hour per week. Laboratory 2 hours. Total 3 hours per week.

HRT 246 Herbaceous Plants (2-3 Cr.)

Considers the herbaceous plants used in the landscape. Includes identification, use, culture, and propagation of common bulbs and annuals. Lecture 1 hour per week. Laboratory 2 hours. Total 3 hours per week.

HRT 247 Indoor Plants (2-3 Cr.)

Considers problems unique to the growth of indoor plants and their use in interior landscaping. Covers identification, uses, culture, and propagation of specific indoor plants. Teaches scientific and common names of plants. Lecture 1 hour per week. Laboratory 2 hours. Total 3 hours per week.

HRT 259 Arboriculture (3 Cr.)

Studies the techniques of tree care. Covers surgery, pruning, insect and disease recognition and control, fertilization, cabling, and lightning rod installation. Labs give practical experience in tree climbing and use of various tree-care tools. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

HRT 260 Introduction to Floral Design (3 Cr.)

Serves as a practical introduction to floral designs. Teaches basic methods of design and floral arrangement. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

HRT 265 Professional Floral Design and Shop Management (3 Cr.)

Studies location, management and operation of a retail florist. Includes ordering, telemarketing, account handling, advertising and marketing. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

HRT 266 Advanced Floral Design (3 Cr.)

Teaches skills related to floral designs created by retail florists. Studies wreaths, baskets, sprays, wedding flowers, corsages, and other contemporary arrangements. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

HRT 267 Silk and Dried Flower Arranging (2 Cr.)

Concentrates on conventional and contemporary approaches to floral design. Teaches use of silk and dried flowers for holidays and special occasions. Lecture 1 hour per week. Laboratory 2 hours. Total 3 hours per week.

Human Services

HMS 100 Introduction to Human Services (3 Cr.)

Introduces human services agencies, roles and careers. Presents an historical perspective of the field as it relates to human services today. Additional topics include values clarification and needs of target populations. Lecture 2 hours per week.

HMS 109 Structured Career Planning in Human Services (3 Cr.)

Overviews human services as a career field. Teaches career development skills for personal career planning and for use with clients. Includes a 9-hour computer component (word processing). Lecture 3 hours per week.

HMS 121 Basic Counseling Skills I (3 Cr.)

Develops skills needed to function in a helping relationship. Emphasizes skills in attending, listening, and responding. Clarifies personal skill strengths, deficits and goals for skill improvement. Lecture 3 hours per week.

HMS 227 The Helper as a Change Agent (3 Cr.)

Teaches the following skills for implementing alternative models of change and influence: action research, problem-solving, consultation, workshop development, and outreach and advocacy for diverse client populations. Lecture 3 hours per week.

HMS 251 Substance Abuse I (3 Cr.)

Provides knowledge, skills, and insight for working in drug and alcohol abuse programs. Emphasizes personal growth and client growth measures in helping relationships. Stresses various methods of individual and group techniques for helping the substance abuser. Lecture 3 hours per week.

HMS 252 Substance Abuse II (3 Cr.)

Expands knowledge and skill in working with the substance abuser. Focuses on assisting substance abusers in individual and group settings and explores client treatment modalities. May provide opportunities for field experience in treatment centers. Prerequisite: HMS 151. Lecture 3 hours per week.

Humanities

HUM 100 Survey of the Humanities (3 Cr.)

Introduces the humanities through art, literature, music, and philosophy of various cultures and historical periods. Reading prerequisite required. Lecture 3 hours per week.

HUM 295 Phi Theta Kappa Honors Seminar (1 Cr.)

Explores honors topic selected annually by Phi Theta Kappa, the national honor society for two-year colleges. Presents varied faculty viewpoints and encourages students to research and present individual aspects of a topic. Offered for honors credit. Students may enroll more than once. Reading prerequisite required. Faculty permission required.

HUM 201 Survey of Western Culture I (3 Cr.)

Studies thought, values, and arts of Western culture, integrating major developments in art, architecture, literature, music, and philosophy. Covers the following periods: Ancient and Classical, Early Christian and Byzantine, Medieval, and early Renaissance. Reading prerequisite required. Lecture 3 hours per week.

HUM 202 Survey of Western Culture II (3 Cr.)

Studies thought, values, and arts of Western culture, integrating major developments in art, architecture, literature, music, and philosophy. Covers the following periods: Renaissance, Baroque, Enlightenment, Romantic, and Modern. Reading prerequisite required. Lecture 3 hours per week.

HUM 211-212 Survey of American Culture I-II (3 Cr.) (3 Cr.)

Examines elements of our national culture as they evolved from the first European explorations through colonization and independence to the present day. Reading prerequisite required. Lecture 3 hours per week.

HUM 241-242 Interdisciplinary Principles of the Humanities I-II (3 Cr.) (3 Cr.)

Integrates unifying principles of the humanities and related fields of study. Emphasizes the expansion of student's intellectual perspective and development of concepts enabling the integration of knowledge from diverse fields into a unified whole. Reading prerequisite required. Lecture 3 hours per week.

HUM 260 Survey of Twentieth-Century Culture (3 Cr.)

Explores literature, visual arts, philosophy, music, and history of our time from an interdisciplinary perspective. Reading prerequisite required. Lecture 3 hours per week.

Interior Design

IDS 100 Theory and Techniques of Interior Design (3 Cr.)

Introduces drafting and presentation, color theory, and coordination, space planning and arrangement of furnishings.

IDS 116 Period Residential Design (4 Cr.)

Plans a period-inspired interior. May use field trips and visual materials to enhance this project. Presents problem and their solutions found in this kind of project. May require a final visual presentation with all necessary furnishings, materials, and color boards with rendered perspectives. Prerequisites: IDS 100 and 121.

IDS 121 Styles of Furniture and Interiors I (3 Cr.)
Introduces students to styles of furniture and interior design from the ancient world to the 18th century and early 19th century and suggests current applications to interior designs. Lecture 3 hours per week.

IDS 122 Designing Commercial Interiors II (4 Cr.)
Presents problems in designing and developing presentation with emphasis on office spaces. Lecture 2 hours. Laboratory 4 hours. Total 6 hours per week

IDS 205 Materials and Sources (3 Cr.)
Presents textiles, floor and wall coverings, and window treatments. Emphasizes construction, fiber, finish, and code applications. May use research and field trips to trade sources representing these elements. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

IDS 206 Lighting and Furnishings (3 Cr.)
Provides instruction in lighting terminology and calculations and instructions in techniques of recognizing quality of construction in furnishings and related equipment. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

IDS 225 Business Procedures
Provides instruction in preparation of contracts, purchase orders, specifications, and other business forms used in the interior design field. Lecture 3 hours per week.

Industry

IND 25 Quality Assurance (2 Cr.)
Introduces the basics of quality assurance within industry. Covers concepts, techniques, costs, and measurement. Examines hierarchies of quality standards. Lecture 2 hours per week.

IND 118 Total Productive Maintenance (2 Cr.)
Provides an overview of the principles of total productive maintenance and its innovative approach to maintenance through optimization of existing internal resources. Emphasizes a world-class synergistic environment based upon teamwork and consensus building that lends itself to increased capacity, improved efficiency, and plant cost reduction through the continuous improvement of the manufacturing process. Lecture 2 hours per week.

IND 150 Industrial Management (3 Cr.)
Studies planning, organizing, directing, and controlling industrial activities. May include research, product design, methods and time management, quality assurance, or other functions. Lecture 3 hours per week.

IND 230 Applied Quality Control (3 Cr.)
Studies principles of inspection and quality assurance with emphasis on statistical process control. May include the setting up, maintaining, and interpreting of control charts, and review of basic metrology. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

IND 235 Statistical Quality Control (3 Cr.)
Gives overview of the quality control function within industry. May include the organization, cost, and techniques of quality control. Emphasizes essentials and applications of statistics in the quality control function. Lecture 3 hours per week.

Information Systems Technology

Information Systems Technology – Changed to :

ITE – Information Technology Essentials
ITD – Information Technology Design and Database
ITN – Information Technology Networking
ITP – Information Technology Programming

Information Technology Design and Database

ITD 110 Web Page Design I (3-4 Cr.)
Stresses a working knowledge of web site designs, construction, and management using HTML or XHTML. Course content includes headings, lists, links, images, image maps, tables, forms, and frames. Prerequisite: ITE 115, CSC 155 (or equivalent) or instructor approval. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITD 112 Designing Web Page Graphics (3-4 Cr.)
Explores the creation of digital graphics for web design. Basic design elements such as color and layout will be explored utilizing a computer graphics program(s). Prerequisite: ITD 110. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITD 210 Web Page Design II (3-4 Cr.)
Incorporates advanced techniques in web site planning, design, usability, accessibility, advanced site management, and maintenance utilizing web editor software(s). Prerequisite: ITD 110. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITD 250 Database Architecture and Administration (3-4 Cr.)
Involves in-depth instruction about the underlying architecture of databases and the handling of database administration. Prerequisite: ITE 150. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

New Course Prefixes for IST and TEL courses effective Fall 2004 Semester

IST - Information Systems Technology - CHANGED TO: ITE - Information Technology Essentials

ITD - Information Technology Design & Database

ITN - Information Technology Networking

ITP - Information Technology Programming

Old Course Number and Name:	New Course Number and Name:
IST 106 - Microcomputer Operating Systems	ITN 106 - Microcomputer Operating Systems
IST 117 - Intro. to Microcomputer Software	ITE 115 - Basic Computer Literacy
IST 123 - Spreadsheet Software I	ITE 140 - Spreadsheet Software I
IST 129 - Web Page Design I	ITD 110 - Web Page Design I
IST 133 - Database Management Software	ITE 150 - Desktop Database Software
IST 139 - Microcomputer Integrated Software	ITE 215 - Advanced Computer Literacy
IST 149 - Java Programming I	ITP 120 - Java Programming I
IST 153 - Computer Program Design	ITP 100 - Software Design
IST 156 - C++ Programming	ITP 132 - C++ Programming I
IST 176 - Event-Driven Basic	ITP 112 - Visual Basic.NET
IST 200 - Local Area Networks	ITN 111 - Windows 2000 Server (or ITN 116 Windows 2003 Server)
IST 202 - Networking Technologies	ITN 101 - Intro. to Network Concepts
IST 203 - Administration of Local Area Networks	ITN 112 - Windows 2000 Network Infrastructure Administration (or ITN 117 Windows 2003 Network Infrastructure Administration)
IST 206 - Network Servicing	ITN 107 - Personal Computer Hardware and Troubleshooting
IST 223 - Web Page Development and Scripting	ITP 242 - ASP: Server-Side Scripting
IST 226 - Web Page Design II	ITD 210 - Web Page Design II
IST 227 - Internet Programming I	ITP 140 - Client Side Scripting
IST 236 - Advanced Database Administration	ITD 250 - Database Architecture and Administration
IST 245 - Network Security Basics	ITN 260 - Network Security Basics
IST 246 - Network Attacks, Computer Crime, Hacking	ITN 261 - Network Attacks, Computer Crime, Hacking
IST 247 - Network Communication, Security, and Authentication	ITN 262 - Network Communication, Security, and Authentication
IST 248 - Internet/Intranet Firewalls and E-Commerce Security	ITN 263 - Internet/Intranet Firewalls and E-Commerce Security
IST 249 - Java Programming II	ITP 220 - Java Programming II
IST 251 - Systems Analysis and Design	ITP 251 - Systems Analysis and Design
IST 256 - C++ Programming II	ITP 232 - C++ Programming II
IST 258 - System Development Project	ITP 258 - Systems Development Project
IST 276 - Event-Driven Basic II	ITP 212 - Visual Basic.NET II
new ITP 136 - C# Programming I	
new ITP 236 - C# Programming II	
new ITN 170 - Linux System Administration	
TEL 150 - Internetworking I	ITN 154 - Networking Fundamentals - Cisco
TEL 151 - Internetworking II	ITN 155 - Introductory Routing - Cisco
TEL 250 - Internetworking III	ITN 156 - Basic Switching & Routing - Cisco
TEL 251 - Internetworking IV	ITN 157 - WAN Technologies - Cisco

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Information Technology Essentials

ITE 115 Basic Computer Literacy (3-4 Cr.)

Covers computer concepts and Internet skills and use of a software suite which includes word processing, spreadsheet, database, and presentation software to demonstrate skills required for computer literacy. Recommended prerequisite keyboarding skills. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITE 127 Microcomputer Software: Beginning Windows (1-2 Cr.)

Imparts first-time users with sufficient information to make practical use of the Windows software package. This course also presents the basics of the features and applications included in the Windows operating system package. Lecture 1-2 hours per week.

ITE 130 Introduction to Internet Services (3-4 Cr.)

Provides instruction to provide students with a working knowledge of Internet terminology and services including email, WWW browsing, search engines, ftp, file compression, and other services using a variety of software packages. This course provides instruction for basic web page construction. Prerequisite: ITE 127 or equivalent strongly recommended. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITE 131 Survey of Internet Services (1-2 Cr.)

Introduces students to basic Internet terminology and services including e-mail, WWW browsing, search engines, FTP, Telnet, and other services. Lecture 1-2 hours per week.

ITE 140 Spreadsheet Software (3-4 Cr.)

Covers the use spreadsheet software to create spreadsheets with formatted cells and cell ranges, control pages, multiple sheets, charts, and macros. Topics will include type and edit text in a cell, enter data on multiple worksheets, work with formulas and functions, create charts, pivot tables, and styles, insert headers and footers, and filter data. This course covers MOS Excel objectives. Prerequisite: ITE 115 or CSC 155 (or equivalent). Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITE 141 Microcomputer Software: Spreadsheets (1-2 Cr.)

Gives first-time users with sufficient information to make practical use of spreadsheet software using the basics of building spreadsheets. Prerequisite: ITE 127 or equivalent strongly recommended. Lecture 1-2 hours per week.

ITE 150 Desktop Database Software (3-4 Cr.)

Incorporates instruction in planning, defining, and using a database; performing queries; producing reports; working with multiple files; and concepts of database programming. Course topics include database concepts, principles of table design and table relationships, entering data, creating and using forms, using data from different sources, filtering, creating mailing labels. This course covers MOS Access certification objectives. Prerequisite: ITE 115 or CSC 155 (or equivalent). Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITE 151 Microcomputer Software: Database Management (1-2 Cr.)

Presents first-time users with sufficient information to make practical use of database management software using the basics of building databases. This course covers specific business applications. Prerequisite: ITE 127 or equivalent strongly recommended. Lecture 1-2 hours per week.

ITE 215 Advanced Computer Literacy (3-4 Cr.)

Incorporates advanced computer concepts including the integration of a software suite. Prerequisite: ITE 115 or CSC 155 (or equivalent). Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

Information Technology Networking

ITN 100 Introduction to Telecommunications (3-4 Cr.)

Surveys data transmission systems, communication lines, data sets, network, interfacing, protocols, and modes of transmission. Course content emphasizes network structure and operation. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITN 101 Introduction to Network Concepts (3-4 Cr.)

Provides instruction in networking media, physical and logical topologies, common networking standards and popular networking protocols. Course content emphasizes the TCP/IP protocol suite and related IP addressing schemes, including CIDR. Course content also includes selected topics in network implementation, support and LAN/WAN connectivity. Prerequisite: ITE 127 or equivalent strongly recommended. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITN 106 Microcomputer Operating Systems (3-4 Cr.)

Teaches use of operating system utilities and multiple-level directory structures, creation of batch files, and configuration of microcomputer environments. May include a study of graphical user interfaces. Maps to A+ Software Certification (CompTIA A+ OS Component exam 220-222). Prerequisite: ITE 127 or equivalent strongly recommended. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITN 107 Personal Computer Hardware and Troubleshooting (3-4 Cr.)

Includes specially designed instruction to give students a basic knowledge of hardware and software configurations. It includes the installation of various peripheral devices as well as basic system hardware components. Maps to A+ Hardware Certification (CompTIA A+ Hardware Component exam 220-221). Prerequisite: ITN 106. ITE 127 or equivalent strongly recommended. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITN 111 Windows 2000 Server (3-4 Cr.)

Covers basic instruction in installation, configuration, administration, monitoring, and troubleshooting of Windows 2000 Server in an Active Directory domain environment. (Maps to Microsoft exam 70-215.) Prerequisite: ITN 154 or ITN 101 (or equivalent), and ITN 106. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITN 112 Windows 2000 Network Infrastructure Administration (NIA) (3-4 Cr.)

Provides extensive instruction for the technical knowledge required for installation, configuration, administration, monitoring, and troubleshooting of Windows 2000 Server services such as NDS, DHCP, WINS, RRAS, NAT, and Certificate Authority to support the network infrastructure. (Maps to Microsoft exam 70-216.) Prerequisite: ITN 154 or ITN 101 (or equivalent), ITN 106, and ITN 111. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITN 116 Windows 2003 Network Infrastructure Implementation, Management, & Maintenance (NI-IMM) (3-4 Cr.)

Provides instruction on how to implement, manage, and maintain a Microsoft Windows Server 2003 network infrastructure. (Maps to Microsoft exam 70-291.) Prerequisite: ITN 154 or ITN 101 (or equivalent), and ITN 106. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITN 117 Windows 2003 Network Infrastructure Planning & Maintenance (NI-PIM) (3-4 Cr.)

Includes instruction on how to plan and maintain a Microsoft Windows Server 2003 network infrastructure. (Maps to Microsoft exam 70-293.) Prerequisite: ITN 154 or ITN 101 (or equivalent), ITN 106, and ITN 116. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITN 154 Networking Fundamentals-Cisco (3-4 Cr.)

Provides introduction to networking using the OSI reference model. Course content includes data encapsulation, TCP/IP suite, routing, IP addressing, and structured cabling design and implementation. (Maps to CCNA exam 640-507.) Prerequisite: ITE 127 or equivalent strongly recommended. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITN 155 Introductory Routing-Cisco (3-4 Cr.)

Features an introduction to basic router configuration using Cisco IOS software. Course content includes system components, interface configuration, IP network design, troubleshooting techniques, configuration and verification of IP addresses, and router protocols. (Maps to and CCNA exam 640-507.) Prerequisite: ITN 154. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITN 156 Basic Switching and Routing-Cisco (3-4 Cr.)

Centers instruction in LAN segmentation using bridges, routers, and switches. Course content includes fast Ethernet, access lists, routing protocols, spanning tree protocol, virtual LANs, and network management. (Maps to CCNA exam 640-507.) Prerequisite: ITN 155. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITN 157 WAN Technologies-Cisco (3-4 Cr.)

Concentrates on an introduction to Wide Area Networking (WANs). Course content includes WAN design, LAPB, Frame Relay, ISDN, HDLC, and PPP. (Maps to CCNA exam 640-507.) Prerequisite: ITN 156. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITN 170 Linux System Administration (3-4 Cr.)

Focuses instruction on the installation, configuration and administration of the Linux operating system and emphasizes the use of Linux as a network client and workstation. (Maps to Linux+ exam XK0-001.) Prerequisite: ITE 127 or equivalent strongly recommended. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITN 260 Network Security Basics (3-4 Cr.)

Provides instruction in the basics of network security in depth. Course content includes security objectives, security architecture, security models and security layers. Course content also includes risk management, network security policy, and security training. Course content includes the give security keys, confidentiality integrity, availability, accountability and auditability. (Maps to Security+ exam SY0-101.) Prerequisite: Department approval. Networking background required. Instructor approval required for non-degree seeking students. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITN 261 Network Attacks, Computer Crime and Hacking (3-4 Cr.)

Encompasses in-depth exploration of various methods for attacking and defending a network. Course content explores network security concepts from the viewpoint hackers and their attack methodologies. Course content also includes topics about hackers, attacks, Intrusion Detection Systems (IDS) malicious code, computer crime and industrial espionage. (Maps to Security+ exam SY0-101.) Prerequisite: Department approval. Networking background required. Instructor approval required for non-degree seeking students. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITN 262 Network Communication, Security and Authentication (3-4 Cr.)

Covers an in-depth exploration of various communication protocols with a concentration on TCP/IP. Course content explores communication protocols from the point of view of the hacker in order to highlight protocol weaknesses. Course content includes Internet architecture, routing, addressing, topology, fragmentation and protocol analysis, and the use of various utilities to explore TCP/IP. (Maps to Security+ exam SY0-101.) Prerequisite: ITN 106 (or equivalent) and ITN 260. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITN 263 Internet/Intranet Firewalls and E-Commerce Security (3-4 Cr.)

Conveys an in-depth exploration of firewall, Web security, and e-commerce security. Course content also explores firewall concepts, types, topology and the firewall's relationship to the TCP/IP protocol. Course content also includes client/server architecture, the Web server, HTML and HTTP in relation to Web Security, and digital certification, D.509, and public key infrastructure (PKI). (Maps to Security+ exam SY0-101.) Prerequisite: ITN 106 (or equivalent) and ITN 260. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

Information Technology Programming**ITP 100 Software Design (3-4 Cr.)**

Introduces principles and practices of software development. Course content includes instruction in critical thinking, problem solving skills, and essential programming logic in structured and object-oriented design using contemporary tools. Prerequisite: ITE 127 or equivalent strongly recommended. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITP 112 Visual Basic.NET I (3-4 Cr.)

Concentrates instruction in fundamentals of object-oriented programming using Visual Basic.NET and the .NET framework. Course content emphasizes program construction, algorithm development, coding, debugging, and documentation of graphical user interface applications. Prerequisite: ITP 100 or CSC 201. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITP 120 Java Programming I (3-4 Cr.)

Entails instruction in fundamentals of object-oriented programming using Java. This course emphasizes program construction, algorithm development, coding, debugging, and documentation of console and graphical user interface applications. Prerequisite: ITP 100 or CSC 201. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITP 132 C++ Programming I (3-4 Cr.)

Centers instruction in fundamentals of object-oriented programming and design using C++. Course content emphasizes program construction, algorithm development, coding, debugging, and documentation of C++ applications. Prerequisite: ITP 100 or CSC 201. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITP 136 C# Programming I (3-4 Cr.)

Presents instruction in fundamentals of object-oriented programming and design using C#. Course content emphasizes program construction, algorithm development, coding, debugging, and documentation of applications within the .NET Framework. Prerequisite: ITP 100 or CSC 201. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITP 140 Client-Side Scripting (3-4 Cr.)

Provides instruction in fundamentals of Internet application design, development, and deployment using client side scripting language(s). Prerequisites: ITP 100 or CSC 201, ITD 110, and a programming language or equivalent experience. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITP 212 Visual Basic.NET II (3-4 Cr.)

Includes instruction in application of advanced object-oriented techniques to application development. Course content emphasizes database connectivity, advanced controls, web forms, and web services using Visual Basic.NET. Prerequisite: ITP 112. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITP 220 Java Programming II (3-4 Cr.)

Imparts instruction in application of advanced object-oriented techniques to application development using Java. Course content emphasizes database connectivity, inner classes, collection classes, networking, and threads. Prerequisite: ITP 120. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITP 232 C++ Programming II (3-4 Cr.)

Presents in-depth instruction of advanced object-oriented techniques for data structures using C++. Prerequisite: ITP 132. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITP 236 C# Programming II (3-4 Cr.)

Focuses instruction in advanced object-oriented techniques using C# for application development. Course content emphasizes database connectivity and networking using the .NET Framework. Prerequisite: ITP 136. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITP 240 Server-Side Programming (3-4 Cr.)

Centers around instruction in fundamentals of Internet application design, development, and deployment. Course content includes implementation of server component models, security, and database connectivity using server-side programming. Prerequisites: ITP 140 and ITD 110. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITP 242 ASP-Server Side Scripting (3-4 Cr.)

Provides instruction in creation of ASP.NET Web applications to deliver dynamic content to a Web site utilizing server controls, web forms, and web services to accomplish complex data access tasks. Prerequisite: ITP 212. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITP 251 Systems Analysis and Design (3-4 Cr.)

Focuses on application of information technologies (IT) to system life cycle methodology, systems analysis, systems design, and system implementation practices. Methodologies related to identification of information requirements, feasibility in the areas of economic, technical and social requirements, and related issues are included in course content.

Software applications may be used to enhance student skills. Prerequisite: Successful completion of a minimum of 9 IT credit hours. This is intended to be a third semester course; as such, proficiency in database management, programming, and oral and written communications is strongly recommended. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

ITP 258 Systems Development Project (3-4 Cr.)

Provides instruction in application of life cycle system development methodologies using a case study which incorporates feasibility study system analysis, system design, program specification, and implementation planning. Course project assignment(s) will have students perform as members of system development teams. Prerequisite: ITP 251. Lecture 3 hours per week. Lab 0-2 hours. Total 3-5 hours per week.

Italian

ITA 101-102 Beginning Italian I-II (4-5 Cr.)

Develops the understanding, speaking, reading, and writing of Italian, and emphasizes the structure of the language. Lecture 4-5 hours per week. May include one additional hour of oral practice per week.

Legal Administration

LGL 110 Introduction to Law and the Legal Assistant (3 Cr.)

Introduces various areas of law in which a legal assistant may be employed. Includes study of the court system (Virginia and federal) as well as a brief overview of criminal law, torts, domestic relations, evidence, ethics, the role of the legal assistant, and other areas of interest. Lecture 3 hours per week.

LGL 115 Real Estate Law for Legal Assistants (3 Cr.)

Studies law of real property and gives in-depth survey of the more common types of real estate transactions and conveyances such as deeds, contracts, leases, and deeds of trust. Focuses on drafting these various instruments and studies the system of recording and search of public documents. Lecture 3 hours per week.

LGL 117 Family Law (3 Cr.)

Studies elements of a valid marriage, grounds for divorce and annulment, separation, defenses, custody, support, adoptions, and applicable tax consequences. Includes property settlement, pre- and ante-nuptial agreements, pleadings, and rules of procedure. May include specific federal and Virginia consumer laws. Lecture 3 hours per week.

LGL 125 Legal Research (3 Cr.)

Provides an understanding of various components of a law library, and emphasizes research skills through the use of digests, encyclopedias, reporter systems, codes, Shepard's Citations, ALR, and other research tools. May include overview of computer applications and writing projects. Lecture 3 hours per week.

LGL 126 Legal Writing (3 Cr.)

Studies proper preparation of various legal documents, including case and appeal briefs, legal memoranda, letters and pleadings. Involves practical applications. Requires competence in English grammar. Lecture 3 hours per week.

LGL 127 Legal Research and Writing (3 Cr.)

Provides a basic understanding of legal research and the proper preparation of legal documents, including brief writing. Prerequisite ENG 111 or permission of division. Lecture 3 hours per week.

LGL 130 Law Office Administration and Management (3 Cr.)

Introduces management principles and systems applicable to law firms, including record keeping, disbursements, escrow accounts, billing, and purchasing. May include accounting methods and software packages applicable to law firms. Lecture 3 hours per week.

LGL 200 Ethics for the Legal Assistant (1 Cr.)

Examines general principles of ethical conduct applicable to legal assistant. Includes the application of rules of ethics to the practicing legal assistant. Lecture 1 hour per week.

LGL 215 Torts (3 Cr.)

Studies fundamental principles of the law of torts, including preparation and use of pleadings and other documents involved in the trial of a civil action. Emphasizes personal injury and medical malpractice cases. Lecture 3 hours per week.

LGL 216 Trial Preparation and Discovery Practice (3 Cr.)

Examines the trial process, including the preparation of a trial notebook, pretrial motions, and orders. May include preparation of interrogatories, depositions, and other discovery tools used in assembling evidence in preparation for the trial or an administrative hearing.

LGL 217 Trial Practice and the Law of Evidence (3 Cr.)

Introduces civil and criminal evidence; kinds, degrees and admissibility of evidence; and methods and techniques of its acquisition. Emphasizes Virginia and federal rules of evidence. Focuses on elements of a trial and various problems associated

with the trial of a civil or criminal case. Lecture 3 hours per week.

LGL 219 Basics of Litigation Support (3 Cr.)

Provides a practical understanding and knowledge of litigation support services, including docket control, case management, document production and organization. Examines the use of privileged documents and various court clerks' offices. Focuses on multiple party case management. Lecture 3 hours per week.

LGL 220 Administrative Practice and Procedure (3 Cr.)

Surveys applicable administrative laws, including the Privacy Act, the Administrative Process Act, and Freedom of Information Act. Studies practice and procedure involving the ABC Commission, State Corporation Commission, Division of Worker's Compensation, Social Security Administration, the Virginia Employment Commission and other administrative agencies. Lecture 3 hours per week.

LGL 225 Estate Planning and Probate (3 Cr.)

Introduces various devices used to plan an estate, including wills, trust, joint ownership and insurance. Considers various plans in light of family situations and estate objectives. Focuses on practices involving administration of an estate including taxes and preparation of forms. Lecture 3 hours per week.

LGL 226 Real Estate Abstracting (3 Cr.)

Reviews aspects of abstracting title to real estate, recordation of land transactions, liens, grantor-grantee indices, warranties, covenants, restrictions, and easements. Lecture 3 hours per week.

LGL 230 Legal Transactions (3 Cr.)

Introduces commercial principles and practices and Uniform Commercial Code. Emphasizes contracts, warrants, title, consideration, performance, parties, subject matter and remedies for breach, torts, sales, negotiable instruments, consumer protection, insurance, wills and inheritance, bankruptcy and statute of limitations. Lecture 3 hours per week.

LGL 232 Consumer Law and Collections (3 Cr.)

Examines civil collection practices and procedures. Includes pre- and post-judgment alternatives, judgment enforcement, and foreclosure actions. Also includes a survey of state and federal consumer protection laws and their application. Lecture 3 hours per week. Lecture 3 hours per week.

LGL 234 Intellectual Property Law (3 Cr.)

Presents outline of federal copyright and federal and state trademark law. Examines the functions of legal assistants in preparing registrations as well as

infringement litigation. Covers related areas of law including trade secrecy and differences between various types of intellectual property. Examines the basics of patent law. Lecture 3 hours per week.

LGL 235 Legal Aspects of Business Organizations (3 Cr.)

Examines lawyer's role in the formation of business entities, including sole proprietorship, partnerships and corporations, and other business vehicles. Studies fundamental principles of law applicable to each and the preparation of the documents necessary for organization and operation. Lecture 3 hours per week.

Machine Technology

MAC 209 Standards, Measurements and Calculations (2-3 Cr.)

Presents typical mathematical and mechanical problems requiring the use of reference standards such as the Machinery's Handbook for solution. Presents use of the Coordinate Measuring Machine for solution. Prerequisite: MTH 103. Lecture 2-3 hours per week.

Marketing

MKT 100 Principles of Marketing (3 Cr.)

Presents principles, methods, and problems involved in the marketing of goods, services, and ideas to consumers and organizational buyers. Discusses present-day problems and policies connected with distribution and sale of products, pricing, promotion, and buyer motivation. Examines variations of the marketing mix and market research, plus legal, social, ethical, and international considerations in marketing. Lecture 3 hours per week.

MKT 210 Sales Management (3 Cr.)

Presents an in-depth examination of managing a sales force. Introduces methods of training, compensating, motivating and evaluating the work force. Explores forecasting techniques and quotas. Lecture 3 hours per week.

MKT 220 Principles of Advertising (3 Cr.)

Emphasizes the role of advertising in the marketing of goods and services. Discusses the different uses of advertising; types of media; how advertising is created; agency functions and legal, social and economic aspects of the industry. Introduces advertising display, copy and artwork preparation, printing and selection of media. Lecture 3 hours per week.

MKT 228 Promotion (3 Cr.)

Presents an overview of promotion activities including advertising, visual merchandising, publicity, and sales promotion. Focuses on coordinating these activities into an effective campaign to promote sales for a particular product, business, institution, or industry. Emphasizes budgets, selecting media, and analyzing the effectiveness of the campaign. Lecture 3 hours per week.

MKT 229 Marketing Research (3 Cr.)

Introduces the marketing research process to include methodology, data collection, sampling, and analysis. Focuses on planning basic research studies and applying the findings to marketing decisions. Lecture 3 hours per week.

MKT 271 Consumer Behavior (3 Cr.)

Examines the various influences affecting consumer buying behavior before, during, and after product purchase. Describes personal, societal, cultural, environmental, group and economic determinants on consumer buying. Lecture 3 hours per week.

MKT 282 Principles of E-Commerce (3 Cr.)

Studies online business strategies, and the hardware and software tools necessary for Internet commerce. Includes the identification of appropriate target segments, the development of product opportunities, pricing structures, distribution channels and execution of marketing strategies. Lecture 3 hours per week.

Mathematics

MTH 01 Developmental Mathematics (1-5 Cr.)

Designed to bridge the gap between a weak mathematical foundation and the knowledge necessary for the study of mathematics courses in technical, professional, and transfer programs. Topics may include arithmetic, algebra, geometry, and trigonometry. Credits not applicable toward graduation. Variable hours per week.

MTH 02 Arithmetic (1-5 Cr.)

Covers arithmetic principles and computations including whole numbers, fractions, decimals, percents, measurement, graph interpretation, geometric forms, and applications. Develops the mathematical proficiency necessary for selected curriculum entrance. Credits not applicable toward graduation. Variable hours per week.

MTH 03 Algebra I (1-5 Cr.)

Covers the topics of Algebra I including real numbers, equations and inequalities, exponents, polynomials, Cartesian coordinate system, rational expressions, and applications. Develops the mathematical proficiency necessary for selected curriculum entrance. Credits not applicable toward graduation.

Prerequisites: a placement approval for MTH 03 and Arithmetic or equivalent. Variable hours per week.

MTH 04 Algebra II (1-5 Cr.)

Expands upon the topics of Algebra I including rational expressions, radicals and exponents, quadratic equations, systems of equations, and applications. Develops the mathematical proficiency in intermediate algebra necessary for selected curriculum entrance. Credits not applicable toward graduation. Prerequisites: a placement approval for MTH 04 and Algebra I or equivalent. Variable hours per week.

MTH 06 Developmental Geometry (1-5 Cr.)

Covers topics in Euclidean geometry including similarity and congruency, plane and solid figures, right triangles, parallel and perpendicular lines, constructions, and applications. Develops the mathematical proficiency necessary for selected curriculum entrance. Credits not applicable toward graduation. Prerequisites: a placement approval for MTH 06 and Algebra I or equivalent. Variable hours per week.

MTH 103-104 Applied Technical Mathematics I-II (3 Cr.) (3 Cr.)

Presents a review of arithmetic, elements of algebra, geometry, and trigonometry. Directs applications to specialty areas. Prerequisites: a placement recommendation for MTH 103 and one unit of high school mathematics or equivalent. Lecture 3 hours per week.

MTH 115-116 Technical Mathematics I-II (3 Cr.) (3 Cr.)

Presents algebra through exponential and logarithmic functions, trigonometry, vectors, analytic geometry, and complex numbers. Prerequisites: a placement approval for MTH 115 and Algebra I and Geometry, or Algebra I and Algebra II, or equivalent. Lecture 3 hours per week.

MTH 120 Introduction to Mathematics (3 Cr.)

Introduces number systems, logic, basic algebra, systems of equations, and descriptive statistics. Prerequisites: a placement approval for MTH 120 and one unit of high school mathematics or equivalent. (Intended for occupational/technical programs.) Lecture 3 hours per week.

MTH 126 Mathematics for Allied Health (2-3 Cr.)

Presents scientific notation, precision and accuracy, decimals and percents, ratio and proportion, variation, simple equations, techniques of graphing, use of charts and tables, logarithms, and the metric system. Prerequisites: a placement approval for MTH 126 and one unit of high school mathematics or equivalent. Lecture 2-3 hours per week.

MTH 147 Elem/Tech Math for Electrical and Mech. Trades (4 Cr.)

Focuses on algebra and trigonometry, including first- and second-degree equations, system of equations, determinants, factoring, functions, graphs, triangles, vectors, and the metric system. Emphasizes trade applications. Prerequisites: a placement approval for MTH 147 and Algebra I and Geometry, or Algebra I and Algebra II, or equivalent. Lecture 4 hours per week.

MTH 150 Topics in Geometry (3 Cr.)

Presents the fundamentals of plane and solid geometry and introduces non-Euclidean geometries and current topics. Prerequisites: a placement approval for MTH 150 and Algebra I. Lecture 3 hours per week.

MTH 151 Mathematics for the Liberal Arts I (3 Cr.)

Presents topics in sets, logic, numeration systems, geometric systems, and elementary computer concepts. Prerequisites: a placement approval for MTH 151 and Algebra I, Algebra II and Geometry or equivalent. Lecture 3 hours per week.

MTH 152 Mathematics for the Liberal Arts II (3 Cr.)

Presents topics in functions, combinations, probability, statistics and algebraic systems. Prerequisites: a placement approval for MTH 152 and Algebra I, Algebra II and Geometry or equivalent. Lecture 3 hours per week.

MTH 160 Introduction to College Algebra (3 Cr.)

Reviews the fundamental ideas of algebra including sets, polynomials, rational expressions, graphing, equations and inequalities, relations and functions, and systems of first-degree equations and inequalities. Prerequisites: satisfactory score on an appropriate proficiency examination and MTH 03 and either MTH 04 or MTH 06 or equivalent. Lecture 3 hours per week.

MTH 163 Precalculus I (3 Cr.)

Presents college algebra, matrices, and algebraic, exponential, and logarithmic functions. Prerequisites: a placement approval for MTH 163 and Algebra I, Algebra II, and Geometry or equivalent. Lecture 3 hours per week.

MTH 164 Precalculus II (3 Cr.)

Presents trigonometry, analytic geometry, and sequences and series. Prerequisite: MTH 163 or equivalent. Lecture 3 hours per week.

MTH 173 Calculus with Analytic Geometry I (4-5 Cr.)

Presents analytic geometry and the calculus of algebraic and transcendental functions including the study of limits, derivatives, differentials, and introduction to integration along with their applications. Designed for mathematical, physical, and engineering science programs. Prerequisites: a placement recommendation for MTH 173 and four units of high school mathematics including Algebra I, Algebra II, Geometry and Trigonometry or equivalent. Lecture 5 hours per week.

MTH 174 Calculus with Analytic Geometry II (4-5 Cr.)

Continues the study of analytic geometry and the calculus of algebraic and transcendental functions including rectangular, polar, and parametric graphing, indefinite and definite integrals, methods of integration, and power series along with applications. Designed for mathematical, physical, and engineering science programs. Prerequisite: MTH 173 or equivalent. Lecture 5 hours per week.

MTH 213-214 Advanced Engineering Technical Mathematics I-II (3 Cr.) (3 Cr.)

Presents limits and differential and integral calculus with applications directed toward the appropriate technical field. Prerequisite: MTH 114 or MTH 116 or equivalent. Lecture 3 hours per week.

MTH 241 Statistics I (3 Cr.)

Covers descriptive statistics, elementary probability, probability distributions, estimation, and hypothesis testing. Prerequisites: a placement recommendation for MTH 241 and MTH 163 or MTH 166 or equivalent. Lecture 3 hours per week.

MTH 242 Statistics II (3 Cr.)

Continues the study of estimation and hypothesis testing with emphasis on correlation and regression, analysis of variance, chi-square tests, and non-parametric methods. Prerequisite: MTH 241 or equivalent. Lecture 3 hours per week.

MTH 271 Applied Calculus I (3 Cr.)

Presents limits, continuity, differentiation of algebraic and transcendental functions with applications, and an introduction to integration. Prerequisite: MTH 163 or MTH 166 or equivalent. Lecture 3 hours per week.

MTH 272 Applied Calculus II (3 Cr.)

Covers techniques of integration; multivariable calculus, and an introduction to differential equations. Prerequisite: MTH 271 or equivalent. Lecture 3 hours per week.

MTH 275 Multivariable Calculus and Linear Algebra (4 Cr.)

Presents vector valued functions, partial derivatives, multiple integrals, matrices, vector spaces, determinants, solutions of systems of linear equations, basis and dimension eigenvalues and eigenvectors. Designed for mathematical, physical, and engineering science programs. Prerequisite: MTH 174 or equivalent. Lecture 4 hours per week.

MTH 277 Vector Calculus (4 Cr.)

Presents vector valued functions, partial derivatives, multiple integrals, and topics from the calculus of vectors. Designed for mathematical, physical, and engineering science programs. Prerequisite: MTH 174 or equivalent. Lecture 4 hours per week.

MTH 285 Linear Algebra (3 Cr.)

Covers matrices, vector spaces, determinants, solutions of systems of linear equations, eigenvalues, and eigenvectors. Prerequisite: MTH 174 or equivalent. Lecture 3 hours per week.

Mechanical Engineering Technology**MEC 113 Materials and Processes of Industry (3-4 Cr.)**

Studies industrial/engineering materials and accompanying industrial processes. Investigates nature of materials structure and properties from a design standpoint, leading to a more intelligent selection of a material to fit the requirements of a part or product. Analyzes the effects of the various processes on materials, as well as the processes themselves to ensure a logical and systematic procedure for selection of materials. Lecture 4 hours per week.

MEC 116 Jig and Fixture Design (3 Cr.)

Focuses on fundamentals of the construction and design of various types of jigs and fixtures, including milling, reaming, tapping, and drilling fixtures. Studies preparation of complete working drawings from layouts, for interchangeable manufacture, computation of fits, limit dimensions, tolerances, tool drawing principles and methods, and fundamentals of cutting tools and gauges. Lecture 2 hours per week. Laboratory 3 hours. Total 5 hours per week.

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MEC 119 Introduction to Basic CNC and CAM (2-3 Cr.)

Teaches the basic concepts of programming Computer Numerically Controlled (CNC) machine tools. Emphasizes the use of Computer Aided Manufacturing (CAM) in generating the programs and the integration of Computer Aided Design (CAD) into the manufacturing process. Students will operate a CNC milling machine to fabricate a part they have programmed. Combined lecture/laboratory 3 hours per week.

MEC 120 Principles of Machine Technology (2-3 Cr.)

Studies fundamental machine operations and practices, including layout, measuring devices, hand tools, drilling, reaming, turning between corners, cutting tapers and threads, and milling; fabrication of mechanical parts on drill press, lathe and mill. Lecture 2 hours per week. Laboratory 3 hours. Total 5 hours per week.

MEC 136 Advanced Machine Technology (3 Cr.)

Applies machine operations of boring, grinding and gear cutting to build simple machines and make the necessary tools for fabrication. Lecture 2 hours per week. Laboratory 3 hours. Total 5 hours per week.

MEC 161 Basic Fluid**Mechanics-Hydraulics/Pneumatics (3-4 Cr.)**

Introduces theory, operation and maintenance of hydraulic/pneumatics devices and systems. Emphasizes the properties of fluids, fluid flow, fluid statics, and the application of Bernoulli's equation. Lecture 3 hours per week. Laboratory 3 hours. Total 6 hours per week.

MEC 165 Applied Hydraulics, Pneumatics and Hydrostatics (3 Cr.)

Teaches fluid power system design, operation, testing, maintenance and repair. Includes reservoirs, pump connecting valves, cylinders, pressure regulating valves, flow control valves, hydraulic motors, and an introduction to basic hydrostatic hydraulic systems. Lecture 2 hours per week. Laboratory 3 hours. Total 5 hours per week.

MEC 210 Machine Design (3 Cr.)

Studies the design of machine elements for producing and transmitting power. Includes additional material in statics, strength of materials, dynamics, engineering materials and industrial processes, including lubrication and friction. Emphasizes graphical kinematics of mechanisms and discusses analytical design of machine components. Requires preparation of weekly laboratory reports. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

MEC 266 Applications of Fluid Mechanics (3-4 Cr.)

Teaches theory of hydraulic and pneumatic circuits including motors, controls, actuators, valves, plumbing, accumulators, reservoirs, pumps, compressors, and filters. Lecture 3 hours per week.

Medical Assisting**MDA 203 Medical Office Procedures (3 Cr.)**

Instructs the student in the practice of the management of medical offices in areas such as receptionist duties, telephone techniques, appointment scheduling, verbal and written communications, medical and non-medical record management. Explains library and editorial duties, inventory, care of equipment and supplies, security, office maintenance, management responsibilities, placement and professional ethics and professionalism. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

MDA 206 Medical Office Bookkeeping and Insurance (4 Cr.)

Instructs the student in the practice of bookkeeping and insurance programs, laws, and the processing of claim forms. Lecture 3 hours per week. Laboratory 3 hours. Total 6 hours per week.

MDA 207 Medical Law and Ethics (2 Cr.)

Instructs the student in the legal relationships of the physician, patient, and medical assistant; professional liabilities, Medical Practice Acts, professional attitudes and behavior, and the types of medical practice. Also includes a basic history of medicine. Lecture 2 hours per week.

Mental Health**MEN 110 Introduction to Abnormal Psychology (3 Cr.)**

Studies symptoms, causes and treatment of mental deficiency, menrosis, psychosis and character disorders, with specific relationship to work of the mental health technologist. Lecture 3 hours per week.

Music**MUS 111-112 Music Theory I-II (4 Cr.) (4 Cr.)**

Discusses elements of musical construction of scales, intervals, triads, and chord progressions. Develops ability to sing at sight and write from dictation. Introduces the analysis of the Bach chorale style. Expands facility with harmonic dictation and enables the student to use these techniques at the keyboard. Lecture 3 hours per week. Laboratory 2 hours. Total 5 hours per week.

MUS 121-122 Music Appreciation I-II (3 Cr.) (3 Cr.)

Increases the variety and depth of the student's interest, knowledge, and involvement in music and related cultural activities. Acquaints the student with traditional and twentieth century music literature, emphasizing the relationship music has as an art form with man and society. Increases the student's awareness of the composers and performers of all eras through listening and concert experiences. Lecture 3 hours per week.

MUS 131-132 Class Voice I & II (2 Cr.) (2 Cr.)

Introduces the many aspects of singing from the physical act through the aesthetic experience. The course is designed for the beginning singer who desires vocal improvement, and for the voice major as an addition to and extension of skills and knowledge necessary for artistic development. Introduces appropriate repertoire. Lecture 1 hour per week. Laboratory 2 hours. Total 3 hours per week.

MUS 137 Chorus Ensemble (1-2 Cr.)

Ensemble consists of performance from the standard repertoires, including study of ensemble techniques and interpretation. Divisional approval required. May be repeated for credit.

Natural Science**NAS 120 Introductory Meteorology (3 Cr.)**

Studies cloud formation, weather maps, forecasting, and wind systems with emphasis on local weather patterns. Lecture 3 hours per week.

NAS 125 Meteorology (4 Cr.)

Presents a non-technical survey of fundamental meteorology. Focuses on the effects of weather and climate on humans and their activities. Serves for endorsement or recertification of earth science teachers. Lecture 3 hours per week. Recitation and laboratory 2 hours per week. Total 5 hours per week.

NAS 130 Elements of Astronomy (4 Cr.)

Covers history of astronomy and its recent developments. Stresses the use of astronomical instruments and measuring techniques and includes the study and observation of the solar system, stars, and galaxies. Lecture 3 hours per week. Recitation and laboratory 3 hours. Total 6 hours per week.

Nursing**NUR 27 Nurse Aide I (3-5 Cr.)**

Teaches care of older patients with emphasis on the social, emotional, and spiritual needs. Covers procedures; communication and interpersonal relations; observations, charting and reporting; safety and infection control; anatomy and physiology; personal care, nutrition and patient feeding; and death and dying. May include laboratory or clinical hours. Lecture 2-4 hours per week. Laboratory 3-9 hours. Total 6-11 hours per week.

NUR 100 Introduction to Nursing and Health (1-2 Cr.)

Introduces concepts of nursing and health. Includes historical and cultural aspects, legal, and ethical responsibilities and an overview of health and the health care delivery system. Lecture 1-2 hours per week.

NUR 105 Nursing Skills (2-3 Cr.)

Develops nursing skills for the basic needs of individuals and introduces related theory. Provides supervised learning experiences in college nursing laboratories and/or cooperating agencies. Lecture 0-2 hours. Laboratory 3-9 hours. Total 4-9 hours per week.

NUR 108 Nursing Principles and Concepts I (5-6 Cr.)

Teaches principles of nursing, health and wellness concepts, and the nursing process. Develops nursing needs to meet the multidimensional needs of individuals. Includes math computational skills and basic computer instruction related to the delivery of nursing care. Provides supervised learning experience in college nursing laboratories and/or cooperating agencies. Lecture 1-5 hours. Laboratory 3-15 hours. Total 7-16 hours per week.

NUR 110 Introduction to Nursing and Health (1-3 Cr.)

Introduces concepts of Nursing and Health. Includes historical and cultural aspects, legal and ethical responsibilities and an overview of health and the health care delivery system. Lecture 1-3 hours per week.

NUR 115 LPN Transition (2-7 Cr.)

Introduces the role of the registered nurse through concepts and skill development in the discipline of professional nursing. This course serves as a bridge course for licensed practical nurses and is based upon individualized articulation agreements, mobility exams, or other assessment criteria as they relate to local programs and service areas. Includes math computational skills and basic computer instruction related to the delivery of nursing care. (This course has been approved by the Vice Chancellor as an exception to the variable credit policy.) Lecture 1-7 hours. Laboratory 0-18 hours. Total 2-19 hours per week.

NUR 136-137 Principles of Pharmacology I-II (1-2 Cr.) (1-2 Cr.)

Teaches principles of medication administration which include dosage calculations, major drug classifications, drug legislation, legal aspects of medication administration, drug action on specific body systems, and basic computer applications. Lecture 1-2 hours per week.

NUR 140 Introduction to Surgical Care (2 Cr.)

Introduces the study of the surgical process, including aspects of the operating room environment. Highlights preparing the patient for surgery, including transporting, positioning, and special preparation procedure. Presents physical, psychological, and spiritual needs of the patient, including ethical and legal rights of the patient. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

NUR 141 Fundamentals of Surgical Care I (3 Cr.)

Introduces principles of aseptic technique, sterilization, disinfection and antisepsis including environmental safety and control, CDC and OSHA requirements. Presents packaging, storing, and dispensing surgical supplies. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

NUR 142 Fundamentals of Surgical Care II (3 Cr.)

Introduces principles of wound healing including types, stages, and complications; types, preparation and care of surgical supplies, packing, dressings, catheters, drains, tubes, supplies and equipment; classifications of instruments, sutures and needles. Describes responsibilities related to the scrub and circulating roles. Provides students practical experience in the operating room. Prerequisite: NUR 141. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

NUR 180 Essentials of Maternal/Newborn Nursing (3-4 Cr.)

Utilizes the concepts of the nursing process in caring for families in the antepartum, intrapartum, and postpartum periods. Includes math computational skills and basic computer instruction related to the delivery of nursing care. Provides supervised learning experiences in college nursing laboratories and/or cooperating agencies. Prerequisite NUR 136. Prerequisite or co-requisite BIO 150. Lecture 2-3 hours. Laboratory 0-6 hours. Total 3-8 hours per week.

NUR 203 Introduction to Mental Health Nursing (2 Cr.)

Utilizes the concepts of the nursing process in caring for individuals, families, and/or groups with mental health needs across the life span. Includes math experiences in college nursing laboratories and/or cooperating agencies. Prerequisites (1st year nursing course work). Lecture 1 hours. Laboratory 3 hours. Total 4 hours per week.

NUR 209 Surgical Procedures I (4 Cr.)

Introduces the surgical specialties of general; gastroenterology, gynecology; ophthalmology; ear, nose and throat; dental; oral and maxillofacial, plastic and reconstructive; pediatrics; oncology; neurology; orthopedics; cardiac, thoracic, vascular; transplant; and trauma in a laboratory and clinical experience. Prerequisite: NUR 142. Lecture 2 hours. Laboratory 6 hours. Total 8 hours per week.

NUR 210 Surgical Procedures II (4 Cr.)

Introduces the surgical specialties of general; gastroenterology, gynecology; ophthalmology; ear, nose and throat; dental; oral and maxillofacial, plastic and reconstructive; pediatrics; oncology; neurology; orthopedics; cardiac, thoracic, vascular; transplant; and trauma in a laboratory and clinical experience. Prerequisite: NUR 209. Lecture 2 hours. Laboratory 6 hours. Total 8 hours per week.

NUR 221-222 Second Level Nursing Principles and Concepts I-II (9-10 Cr.) (9-10 Cr.)

Focuses on nursing care of individuals, families, and/or groups with multidimensional needs in a variety of settings. Uses all components of the nursing process with increasing degrees of skill. Includes math computational skills and basic computer instruction related to the delivery of nursing care. Provides supervised learning experiences in college nursing laboratories and/or cooperating agencies. Prerequisite for NUR 221 are NUR 180 and NUR 203. Prerequisite for NUR 222 is NUR 221. Lecture 1-9 hours. Laboratory 3-27 hours. Total 11-28 hours per week.

NUR 226 Health Assessment (2-3 Cr.)

Teaches the systematic approach to obtaining a health history and performing a physical assessment. Lecture 0-2 hour. Laboratory 3-4 hours. Total 4-6 hours per week.

NUR 254 Dimensions of Professional Nursing (1-2 Cr.)

Explores the role of the professional nurse. Emphasizes nursing organizations, legal and ethical implications, and addresses trends in management and organizational skills. Explores group dynamics, relationships, conflicts and leadership styles. Lecture 1-2 hour per week.

NUR 255 Nursing Organization and Management (2-3 Cr.)

Addresses management and organizational skills as they relate to nursing. Emphasizes group dynamics, resolution of conflicts, and leadership styles. Lecture 2-3 hours per week.

NUR 280 Introduction to Perioperative Nursing (4 Cr.)

Introduces the surgical environment, ethical and legal patient and employee rights, preparation of the patient for surgery, surgical conscience, and the operative nurse's role and responsibilities. Includes laboratory and clinical experience. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

NUR 281 Advanced Perioperative Nursing (5 Cr.)

Focuses on the technical and clinical aspects of perioperative nursing, including perioperative pharmacology, risk management and quality improvement, monitoring and documentation, and standard precautions. Includes laboratory and clinical experience. Lecture 2 hours. Laboratory 9 hours. Total 11 hours per week.

Philosophy**PHI 100 Introduction To Philosophy (3 Cr.)**

Presents an introduction to philosophical problems and perspectives with emphasis on the systematic questioning of basic assumptions about meaning, knowledge, reality, and values. Reading prerequisite required. Lecture 3 hours per week.

PHI 220 Ethics (3 Cr.)

Provides a systematic study of representative ethical systems. Reading prerequisite required. Lecture 3 hours per week.

PHI 227 Bio-Medical Ethics (3 Cr.)

Examines the ethical implications of specific biomedical issues in the context of major ethical systems. Reading prerequisite required. Lecture 3 hours per week.

PHI 228 Ethics for Business and the Professions (3 Cr.)

Examines fundamental concepts, contemporary issues, and normative principles influencing business and professional practices in the context of major ethical systems. Reading prerequisite required. Lecture 3 hours per week.

PHI 265 Philosophy of Religion (3 Cr.)

Examines problems raised by arguments for and against the existence of God and discusses such topics as the nature of God, the nature of religious experience, the problem of evil, religious truth and language, immortality, miracles, spirituality, and the relation between philosophy and theology. Reading prerequisite required. Lecture 3 hours per week.

Photography**PHT 101-102 Photography I-II (3 Cr.) (3 Cr.)**

Teaches basic principles of black and white photography and fundamental camera techniques. Students will take their own photographs, develop the film and print the negatives. Requires outside shooting and lab work. Lecture 1 hour per week. Laboratory 4 hours. Total 5 hours per week.

PHT 105 Basic Photography (3-4 Cr.)

Studies fundamental techniques of the camera and its expressive possibilities. Variable hours per week.

PHT 107 Nature Photography (3 Cr.)

Teaches fundamentals of 35mm color-slide / digital photography of natural objects. Emphasizes selection of equipment and film, compositional theory, and flash photography formula. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

PHT 201-202 Advanced Photography I-II (3 Cr.) (3 Cr.)

Provides weekly critique of students' work. Centers on specific problems found in critiques. Includes working procedures and critical skills in looking at photographs. Advanced black and white photography techniques. Prerequisite: PHT 102 or equivalent. Lecture 2 hours per week. Laboratory 3 hours. Total 5 hours per week.

PHT 211-212 Color Photography I-II (3 Cr.) (3 Cr.)

Introduces theory, materials, and processes of modern color images. Includes additive and subtractive theory, color filtration, and negative and positive printing techniques. Prerequisite: PHT or equivalent. Lecture 2 hours per week. Laboratory 3 hours. Total 5 hours per week.

PHT 216 Wildlife Photography (3 Cr.)

An advanced course in the photography of natural objects. Emphasis will be placed on critiquing the student's photographic work. Use of natural lighting, flash photography and diffusion techniques will be emphasized. Offers seminars on specific subject areas such as animals, plants, birds, insects, and wilderness scenes. Prerequisite PHT 107 or instructor approval. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

PHT 227 Photographic Careers (3 Cr.)

Teaches the techniques of small photographic business operations. Includes portfolio preparation and presentation and basic marketing techniques. Covers theory of marketing, costing procedures and problems, legal accounting problems, copyright, and fundamentals of small photographic business operation. Lecture 3 hours per week.

PHT 264 Digital Photography (3 Cr.)

Teaches theory and practice of digital photography. Emphasizes use of digital cameras in studio and on location. Teaches advanced techniques of image editing. Provides training in digital image transmission from remote locations. Extensive work in Adobe Photoshop. Prerequisites: PHT 101 and ART 283. Lecture 2 hours per week. Laboratory 3 hours. Total 5 hours per week.

Physical Education and Recreation

PED 103-104 Aerobic Fitness I-II (1-2 Cr.) (1-2 Cr.)

Develops cardiovascular fitness through activities designed to elevate and sustain heart rates appropriate to age and physical condition. Variable hours per week.

PED 109 Yoga (1-2 Cr.)

Focuses on the forms of yoga training emphasizing flexibility. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week.

PED 111-112 Weight Training I-II (1-2 Cr.) (1-2 Cr.)

Focuses on muscular strength and endurance training through individualized workout programs. Teaches appropriate use of weight training equipment. Variable hours per week.

PED 116 Lifetime Fitness and Wellness (1-2 Cr.)

Provides a study of fitness and wellness and their relationship to a healthy lifestyle. Defines fitness and wellness, evaluates the student's level of fitness and wellness, and motivates the student to incorporate physical fitness and wellness into daily living. Lecture 1 hour per week.

PED 123-124 Tennis I-II (1-2 Cr.) (1-2 Cr.)

Teaches tennis skills with emphasis on stroke development and strategies for individual and team play. Includes rules, scoring, terminology, and etiquette. Variable hours per week.

PED 133-134 Golf I-II (1-2 Cr.) (1-2 Cr.)

Teaches basic skills of golf, rules, etiquette, scoring, terminology, equipment selection and use, and strategy. Variable hours per week.

PED 135-136 Bowling I-II (1-2 Cr.) (1-2 Cr.)

Teaches basic bowling skills and techniques, scoring, rules, etiquette, and terminology. Variable hours per week.

PED 137-138 Martial Arts I-II (1-2 Cr.) (1-2 Cr.)

Emphasizes forms, styles, and techniques of body control, physical and mental discipline, and physical fitness. Presents a brief history of development of martial arts theory and practice. Lecture 1-2 hours per week. Laboratory 1-2 hours. Total 1-3 hours per week.

PED 140 Water Aerobics (1-2 Cr.)

Focuses on cardiovascular endurance, muscular endurance, and flexibility using water resistance. Includes the principles and techniques of aerobic exercise. Lecture 1-2 hours per week. Laboratory 0-2 hours. Total 1-3 hour per week.

PED 141-142 Swimming I-II (1-2 Cr.) (1-2 Cr.)

Introduces skills and methods of swimming strokes. Focuses on safety and physical conditioning. Lecture 1-2 hours per week. Laboratory 0-2 hours. Total 1-3 hours per week.

PED 154 Volleyball (1-2 Cr.)

Introduces skills, techniques, strategies, rules, and scoring. Variable hours per week.

PED 181-182 Downhill Skiing I-II (1-2 Cr.) (1-2 Cr.)

Teaches basic skills of downhill skiing; selection and use of equipment; terminology and safety rules. Includes field experience. Variable hours per week.

PED 187 Backpacking (1-2 Cr.)

Focuses on the preparation for backpacking trip, equipment and clothing selection, personal and group safety, ecology, and physical conditioning. Includes field experience. Variable hours per week.

Physics

PHY 101-102 Introduction to Physics I-II (4 Cr.) (4 Cr.)

Surveys general principles of physics. Includes topics such as force and motion, energy, heat, sound, light, electricity and magnetism, and modern physics. Reading prerequisite required. Lecture 3 hours per week. Laboratory 3 hours. Total 6 hours per week.

PHY 201-202 General College Physics I-II (4 Cr.) (4 Cr.)

Teaches fundamental principles of physics. Covers mechanics, thermodynamics, wave phenomena, electricity and magnetism, and selected topics in modern physics. Prerequisite: MTH 163 or equivalent. Reading prerequisite required. Lecture 3 hours per week. Laboratory 3 hours per week. Total 6 hours per week.

PHY 231-232 General University Physics I-II (5 Cr.) (5 Cr.)

Teaches principles of classical physics. Includes mechanics, wave phenomena, heat, electricity, magnetism, and optics, with extended coverage of selected topics. Includes recitation as part of the lecture. Prerequisite: MTH 173 (for PHY 231) and MTH 174 and PHY 231 (for PHY 232). Lecture 4 hours. Laboratory 2 hours. Total 6 hours per week.

PHY 241-242 University Physics I-II (4 Cr.) (4 Cr.)

Teaches principles of classical and modern physics. Includes mechanics, wave phenomena, heat, electricity, magnetism, relativity, and nuclear physics. Prerequisite for PHY 241 is MTH 173 or divisional approval. Prerequisite for PHY 242 is MTH 174 or divisional approval. Reading prerequisite required. Lecture 3 hours per week. Laboratory 3 hours. Total 6 hours per week.

PHY 243 Modern Physics (4 Cr.)

Teaches principles of modern physics. Includes in-depth coverage of relativity, quantum physics, solid state and nuclear physics. For major requiring calculus-based physics. Prerequisites: PHY 241-242 or equivalent. Lecture 3 hours per week. Laboratory 2-3 hours. Total 5-6 hours per week.

Political Science

PLS 211-212 U.S. Government I-II (3 Cr.) (3 Cr.)

Teaches structure, operation, and process of national, state, and local governments. Includes in-depth study of the three branches of the government and of public policy. Reading prerequisite required. Lecture 3 hours per week.

PLS 241 International Relations I (3 Cr.)

Teaches geographic, demographic, economic, ideological, and other factors conditioning the policies of countries and discusses conflicts and their adjustments. Reading prerequisite required. Lecture 3 hours per week.

PLS 242 International Relations II (3 Cr.)

Teaches foreign policies of the major powers in the world community with an emphasis on the role of the United States in international politics. Reading prerequisite required. Lecture 3 hours per week.

Practical Nursing

PNE 120 Introduction to Nursing Process (1 Cr.)

Introduces the nursing process. Develops basic skills to ensure quality nursing care. Lecture 1 hour per week.

PNE 135 Maternal and Child Health Nursing (5 Cr.)

Examines pregnancy, childbirth, post-partum and newborn care from a family centered approach. Covers complications related to childbearing. Emphasizes growth and development and exploration of common childhood disorders at various stages. Lecture 4 hours per week. Laboratory 3 hours. Total 7 hours per week.

PNE 145 Trends in Practical Nursing (1 Cr.)

Studies the role of the Licensed Practical Nurse. Covers legal aspects, organizations, and opportunities in practical nursing. Assists students in preparation for employment. Lecture 1 hour per week.

PNE 155 Body Structure and Function (3-4 Cr.)

Studies the structure and function of the body. Lecture 3 hours per week.

PNE 158 Mental Health and Psychiatric Nursing (1-2 Cr.)

Recognizes emotional needs of patients. Provides knowledge of the role that emotions play. Enables students to understand their own behavior as well as patient behavior. Lecture 1 hour per week.

PNE 161 Nursing in Health Changes I (6-7 Cr.)

Focuses on nursing situations and procedures necessary to assist individuals in meeting special needs related to human functions. Lecture 3 hours per week. Laboratory 9 hours. Total 12 hours per week.

PNE 162 Nursing in Health Changes II (10-11 Cr.)

Continues the focus on nursing situations and procedures necessary to assist individuals in meeting special needs related to human functions. Lecture 5 hours per week. Laboratory 18 hours. Total 23 hours per week.

PNE 164 Nursing in Health Changes IV (10-11 Cr.)

Continues the focus on nursing situations and procedures necessary to assist individuals in meeting special needs related to human functions. Lecture 5 hours per week. Laboratory 15 hours. Total 20 hours per week.

PNE 174 Applied Pharmacology for Practical Nurses (1-2 Cr.)

Applies problem-solving skills in preparing and administering medications. Lecture 1 hour per week. Laboratory 3 hours. Total 4 hours per week.

PNE 181-182 Clinical Experience I-II (5 Cr.) (5 Cr.)

Provides guided nursing experience in the hospital setting. Practices skills and applies principles of nursing in basic areas. Includes supervision in administration of medicines. Encourages students to develop basic skills in analyzing patient needs and making nursing decisions. Laboratory 15-18 hours per week.

Psychology

PSY 200 Principles of Psychology (3 Cr.)

Surveys the basic concepts of psychology. Covers the scientific study of behavior, behavioral research methods and analysis, and theoretical interpretations. Includes topics that cover physiological mechanisms, sensation/perception, motivation, learning, personality, psychopathology, therapy, and social psychology. Reading prerequisite required. Lecture 3 hours per week.

PSY 201-202 Introduction to Psychology I-II (3 Cr.) (3 Cr.)

Examines human and animal behavior, relating experimental studies to practical problems. Includes topics such as sensation/perception, learning, memory, motivation, emotion, stress, development, intelligence, personality, psychopathology, therapy, and social psychology. Reading prerequisite required. Prerequisite for PSY 202 is PSY 201. Lecture 3 hours per week.

PSY 205 Personal Conflict and Crisis Management (2-3 Cr.)

Studies the effective recognition and handling of personal and interpersonal conflicts. Discusses cooperative roles of public and private agencies, management of family disturbances, child abuse, rape, suicide, and related cases. Lecture 3 hours per week.

PSY 215 Abnormal Psychology (3 Cr.)

Explores historical views and current perspectives of abnormal behavior. Emphasizes major diagnostic categories and criteria, individual and social factors of maladaptive behavior, and types of therapy. Includes methods of clinical assessment and research strate-

gies. Reading prerequisite required. Prerequisite: PSY 200, 201, or 202. Lecture 3 hours per week.

PSY 230 Developmental Psychology (3 Cr.)

Studies the development of the individual from conception to death. Follows a life-span perspective on the development of the person's physical, cognitive, and psychosocial growth. Reading prerequisite required. Lecture 3 hours per week.

PSY 231-232 Life Span Human Development I-II (3 Cr.) (3 Cr.)

Investigates human behavior through the life cycle. Describes physical, cognitive, and psychosocial aspects of human development from conception to death. Reading prerequisite required. Prerequisite for PSY 232 is PSY 231. Lecture 3 hours per week.

PSY 235 Child Psychology (3 Cr.)

Studies development of the child from conception to adolescence. Investigates physical, intellectual, social and emotional factors involved in the child's growth. Reading prerequisite required. Lecture 3 hours per week.

PSY 236 Adolescent Psychology (3 Cr.)

Studies development of the adolescent. Investigates physical, intellectual, social, and emotional factors of the individual from late childhood to early adulthood. Reading prerequisite required. Lecture 3 hours per week.

PSY 255 Psychological Aspects of Criminal Behavior (3 Cr.)

Studies psychology of criminal behavior. Includes topics such as violent and non-violent crime, sexual offenses, insanity, addiction, white-collar crime, and other deviant behavior. Provides a background for law enforcement occupations. Reading prerequisite required. Lecture 3 hours per week.

Real Estate

REA 100 Principles of Real Estate (4 Cr.)

Examines practical applications of real estate principles. Includes a study of titles, estates, land descriptions, contracts, legal instruments, financing and management of real estate. Lecture 4 hours per week.

Recreation and Parks

RPK 125 Outdoor Education and Interpretive Services (3 Cr.)

Develops basic skills in outdoor education and interpretive services. Provides direct application of skills

in nature centers, visitor management services or resident-based outdoor educational settings. Includes use of audio-visual equipment, interpretive display design and construction, and nature trail planning. Develops specific interpretive programs and outdoor education teaching units. Lecture 2 hours per week. Laboratory 3 hours. Total 5 hours per week.

Religion

REL 100 Introduction to the Study of Religion (3 Cr.)

Explores various religious perspectives and ways of thinking about religious themes and religious experience. Reading prerequisite required. Lecture 3 hours per week.

REL 215 New Testament and Early Christianity (3 Cr.)

Surveys the history, literature, and theology of early Christianity in the light of the New Testament. Reading prerequisite required. Lecture 3 hours per week.

REL 230 Religions of the World (3 Cr.)

Introduces the religions of the world with attention to origin, history, and doctrine. Reading prerequisite required. Lecture 3 hours per week.

REL 240 Religions in America (3 Cr.)

Surveys various manifestations of religion in the American experience. Emphasizes concepts, problems, and issues of religious pluralism and character of American religious life. Reading prerequisite required. Lecture 3 hours per week.

Sign Communications

Replaced by American Sign Language (ASL) and Interpreter Education (INT).

Sociology

SOC 200 Principles to Sociology (3 Cr.)

Introduces fundamentals of social life. Presents significant research and theory in areas such as culture, social structure, socialization, deviance, social stratification, and social institutions. Reading prerequisite required. Lecture 3 hours per week.

SOC 201-202 Introduction to Sociology I-II (3 Cr.) (3 Cr.)

Introduces basic concepts and methods of sociology. Presents significant research and theory in areas such as socialization, group dynamics, gender roles, minority group relations, stratification, deviance, cul-

ture, and community studies. Includes population, social change, and social institutions (family, education, religion, political system, economic system). Reading prerequisite required. Reading prerequisite required. Lecture 3 hours per week.

SOC 215 Sociology of the Family (3 Cr.)

Studies topics such as marriage and family in social and cultural context. Addresses the single scene, dating and marriage styles, child rearing, husband and wife interaction, single parent families, and alternative lifestyles. Reading prerequisite required. Lecture 3 hours per week.

SOC 245 Sociology of Aging (3 Cr.)

Introduces study of aging with special emphasis on later stages of the life cycle. Includes theories of aging, historical and comparative settings, social policy, and future trends of aging. Reading prerequisite required. Lecture 3 hours per week.

SOC 268 Social Problems (3 Cr.)

Applies sociological concepts and methods to analysis of current social problems. Includes delinquency and crime, mental illness, drug addiction, alcoholism, sexual behavior, population crisis, race relations, family and community disorganization, poverty, automation, wars, and disarmament. Reading prerequisite required. Lecture 3 hours per week.

Spanish

SPA 101-102 Beginning Spanish I-II (4-5 Cr.) (4-5 Cr.)

Introduces understanding, speaking, reading, and writing skills and emphasizes basic Spanish sentence structure. May include an additional hour of oral drill and practice per week. Lecture 4-5 hours per week.

SPA 201-202 Intermediate Spanish I-II (3-4 Cr.) (3-4 Cr.)

Continues to develop understanding, speaking, reading, and writing skills. Prerequisite: SPA 102 or equivalent. May include oral drill and practice. Lecture 3-4 hours per week. May include one additional hour of oral practice per week.

Speech and Drama

SPD 100 Principles of Public Speaking (3 Cr.)

Applies theory and principles of public address with emphasis on preparation and delivery. Lecture 3 hours per week

SPD 110 Introduction to Speech Communication (2-3 Cr.)

Examines the elements affecting speech communication at the individual, small group, and public communication levels with emphasis on practice of communication at each level. Lecture 2-3 hours per week.

SPD 111-112 Voice and Diction I-II (3 Cr.) (3 Cr.)

Enables students to improve pronunciation, articulation, and voice quality. Includes applied phonetics. Lecture 3 hours per week.

SPD 116 Speech Workshop (1-6 Cr.)

Enables work in competitive speech activities such as debate, oratory, impromptu speaking, prose and poetry reading, and rhetorical criticism. May be repeated for credit. Variable hours per week.

SPD 130 Introduction to the Theatre (3 Cr.)

Surveys the principles of drama, the development of theatre production, and selected plays to acquaint the student with various types of theatrical presentation. Lecture 3 hours per week.

SPD 131-132 Acting I-II (3 Cr.) (3 Cr.)

Develops personal resources and explores performance skills through such activities as theatre games, role playing, improvisation, work on basic script units, and performance of scenes. Lecture 3 hours per week.

SPD 136 Theatre Workshop (1-6 Cr.)

Enables students to work in various activities of play production. The student participates in performance, set design, stage carpentry, sound, costuming, lighting, stage-managing, props, promotion, or stage crew. May be repeated for credit. Variable hours per week.

SPD 200 Advanced Public Speaking (3 Cr.)

Focuses on preparation and delivery of various advanced forms of public address. Prerequisite: SPD 100 or divisional approval. Lecture 3 hours per week.

SPD 233-234 Rehearsal and Performance I-II (1-4 Cr.) (1-4 Cr.)

Explores various aspects of the theatre through involvement in college theatre production. Variable hours per week.

Student Development

(This prefix will change to SDV, effective Summer 2005)

STD 100 College Success Skills (1 Cr.)

Assists students in transition to college. Provides overviews of College policies, procedures, and curricular offerings. Encourages contacts with other students and staff. Assists students toward college success through information regarding effective study habits, career and academic planning, and other college resources available to students. Students must enroll in STD 100 within the first 12 credits taken at LFCC. Lecture 1 hour per week.

STD 101 Orientation to Visual Arts (1 Cr.)

Introduces students to the skills which are necessary to achieve their academic goals, to the services offered at the college, and to the visual arts. Covers topics such as services offered at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to the visual arts field. Lecture 1 hour per week.

STD 101 Orientation to Health Professions (1 Cr.)

Introduces students to the skills which are necessary to achieve their academic goals, to the services offered at the college, and to the discipline in which they are enrolled. Covers topics such as services offered at the college, including the learning resources center; counseling and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. Lecture 1 hour per week.

STD 104 Study Skills (1-3 Cr.)

Assists students in planning strategies to overcome nonproductive study habits and in implementing positive study behaviors. Includes management, memory improvement, note taking, and test taking. Lecture 1-3 hours per week.

STD 106 Preparation for Employment (1-2 Cr.)

Provides experience in resume writing, preparation of applications, letters of application, and successfully preparing for and completing the job interview. Assists students in identifying their marketable skills and aptitudes. Develops strategies for successful employment search. Assists students in understanding effective human relations techniques and communication skills in job search. Lecture 2 hours per week.

STD 107 Career Education (1-3 Cr.)

Surveys career options available to students. Stresses career development and assists in the understanding of self in the world of work. Assists students in applying decision-making to career choice. Lecture 1-3 hours per week.

STD 108 College Survival Skills (1-3 Cr.)

Provides an orientation to the College. Introduces study skills, career and life planning. Offers an opportunity to engage in activities aimed at self-discovery. Emphasizes development of "coping skills" such as listening, interpersonal relations, competence, and improved self-concept. Recommended for students enrolled in developmental courses. Lecture 1-3 hours per week.

STD 299 Transfer Planning (1 Cr.)

Assist students with a variety of tools to ease the transfer process. Includes the steps necessary to successfully transfer from a community college to a four-year institution. Provides students with self-assessment, career and academic planning and available technology resources. Lecture 1 hour per week.

Veterinary Assisting**VET 100 Introduction to Animal Science (3- 4 Cr.)**

Surveys the common breeds of small and large domestic animals, including identification, management, and restraint. Lecture 2-3 hours. Laboratory 3 hours. Total 5-6 hours per week.

VET 101 Introduction to Veterinary Assisting (3 Cr.)

Presents basic information about assisting the veterinarian. Includes information about companion animals, primarily dogs and cats. Lecture 3 hours per week.

VET 105 Introduction to Veterinary Technology (3 CR)

Introduces the role of veterinary technicians in veterinary practice. Includes medical terminology, ethics, professionalism, and basic concepts of patient care. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

VET 116 Animal Breeds and Behavior (3 CR)

Surveys common species of domestic animals including basic husbandry, care, and handling. Introduces identification of various breeds and their characteristics, including behavior patterns, problems, and solutions. Lecture 3 hours per week.

VET 195 Veterinary Medical Terminology (3 CR)

Provides an understanding of veterinary medical abbreviations and terms. Includes the study of prefixes, suffixes, word stems, and technical terms with emphasis on proper spelling, pronunciation, and usage. Emphasizes more complex skills and techniques in understanding veterinary medical terminology. Lecture 3 hours per week.

Welding**WEL 100 Fundamentals of Welding (3-4 Cr.)**

Introduces electric and gas welding and cutting. Provides fundamental principles of joining ferrous and non-ferrous metals, welding and cutting processes, equipment operation, and safety procedures with emphasis upon welding and cutting procedures. Lecture 2 hours per week. Laboratory 3 hours. Total 5 hours per week.

WEL 120 Introduction to Welding (3 Cr.)

Introduces history of welding processes. Covers types of equipment, and assembly of units. Stresses welding procedures such as fusion, non-fusion, and cutting oxyacetylene. Introduces arc welding. Emphasizes procedures in the use of tools and equipment. Lecture 1-2 hours per week. Laboratory 2-3 hours. Total 3-5 hours per week.

WEL 130 Inert Gas Welding (3 Cr.)

Introduces practical operations in use of inert gas shielded arc welding. Studies equipment operation, setup, safety and practice of Gmaw (Mig) and Gtaw (Tig). Lecture 1 hour per week. Laboratory 3 hours. Total 4 hours per week.



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M.S., Aurora University
M.B.A., Aurora University
Ph.D., Northern Illinois University

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B.A., University of Virginia
M.A., American University

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B.A., Fairmont State College
M.S., James Madison University
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Professor Emeritus and Professor of Business Management, (1970–1990)

Arlene L. Keifer, M.B.A.

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Professor Emeritus and Professor of History, (1970-1998)

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Professor Emeritus and Professor of Psychology, (1984–1995)

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 Harmon, Shary
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 Agricultural Business Natural Resources Management Specialization 117
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