Academic Catalog - 2024/2025

CHOOSE COMMUNITY

LAKES REGION COMMUNITY COLLEGE

LRCC.edu

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Our Mission/Vision

Lakes Region Community College Mission

Lakes Region Community College provides a dynamic, community-based, high-quality learning environment, delivering a personalized education experience that prepares learners for success.

Lakes Region Community College Vision

Lakes Region Community College will continue its development as a learning-centered institution, characterized by innovation, responsiveness, flexibility, caring, collegiality, accountability, and educational excellence.

Accreditations and Memberships

Accreditation

The New England Commission of Higher Education (NECHE) accredits Lakes Region Community College. NECHE is a regional accreditation agency for colleges and universities in New England. The U.S. Secretary of Education and the Council for Higher Education Accreditation recognize the Commission.

Accreditation means the institution meets or exceeds criteria for quality as determined through a peer group review process. An accredited college is one that has the necessary resources to achieve its stated purpose through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the future. Institutional integrity is also addressed through the accreditation process. Accreditation provides reasonable assurance about the quality of opportunities available to students who attend the College.

Inquiries regarding the status of an institution's accreditation by the New England Commission of Higher Education should be directed to the administrative staff of the College. Individuals may also contact the New England Commission of Higher Education, 209 Burlington Woods Drive, Burlington, MA 01803, (781) 425-7785.

Membership

Lakes Region Community College is one of seven colleges in the Community College System of New Hampshire.

Admissions Policies and Procedures

Admission to Lakes Region Community College is open to anyone whose academic record and personal qualifications suggest that they may effectively participate in a program of study.

The following procedure is to be followed by each applicant for degree and certificate programs. A student must take at least one course per year to maintain matriculated status.

Application Process:

- Complete and submit an application to Lakes Region Community College. The application is on the College's website.

- Submit evidence of graduation from a regionally accredited high school (or its equivalent, such as the GED or HiSet) with an unofficial transcript or course and grades, if intending to apply for financial aid.
- Participate in the placement exam or other admission requirements as required by specific programs.
- If applicable, submit an official transcript of all previous college coursework.
- Apprise the College of eligibility for Veterans Administration and other aid programs.

It is the applicant's responsibility to have official transcripts of college coursework sent to Enrollment Services.

Professional Conflict Due to Prior Criminal Convictions

Students may be required to participate in a criminal background check and should be aware that a prior criminal conviction may affect their ability to enter and/or be certified within a given profession. They should immediately contact the Department Chairperson for the program to which they are considering applying to inquire about possible conflict with their ability to enter the profession in which they are interested.

Processing of Applications

In most cases, applicants will be notified of admission status by email within two weeks of the date the College receives all admission requirements. Certain programs, however, have specific application deadlines and notification procedures. Please check the specific program information in this catalog for details.

Residency

A student's permanent home of record determines residency for tuition purposes. Normally, this is the location (city, state) from which the student enrolls for college. The determining factor is the official address listed on federal tax returns.

Any request for a change of residency status must be received in writing in the Admissions Office prior to the first day of the term in which NH residency status for tuition purposes is requested. See section 740.1 in the Student Affairs section of the Community College System of New Hampshire policy manual for full details.

Out-of-State Applicants

The determination of residency is made by the Admissions Office at the time of admission. Students who wish to appeal a residency decision may request detailed information from the Admissions Office.

Determination of In-State Status

1. A student shall be classified as in-state or out-of-state for tuition purposes at the time of their first admission to the system. In the first instance the college Admissions Office will make the decision based upon information furnished on the student's application.
2. Any student who is aggrieved by the decision of the college Admissions Office classifying them as an out-of-state student for tuition purposes may appeal in writing to the President of the appropriate institution or their designee. The student shall have the right to present to the President or their designee such additional evidence as they may deem appropriate in processing their appeal and shall have the right to appear in person and be heard.
3. In all cases of application for in-state status for tuition purposes, the burden of proof shall be on the applicant. At the applicant's request, the Admissions staff member shall state the reason or reasons for their decision in writing.

Fifty-Mile Radius

Students who live within fifty miles of LRCC but live out-of-state may be eligible to pay the in-state tuition rate instead of New England Regional. Contact the Admission's Office to learn more.

New England Regional Student Program

The program is sponsored by the New England Board of Higher Education. It permits the enrollment of out-of-state New England Residents in selected programs at reduced tuition rates under two eligibility categories:

The Uniqueness Rule: When a study program is not offered at an in-state institution, a qualified student may apply for enrollment at an out-of-state institution offering that program under the Regional Student Program. Students enrolled in the GM-ASEP and Toyota/Lexus T-TEN associates degree programs and Marine Technology certificate program and Vermont residents in the Fire Science program are offered in-state tuition rates under this rule.

The Proximity Rule: When a program is offered under the Regional Student Program at both an in-state and an out-of-state institution and the mileage from the students' legal residence to the out-of-state institution is less than the mileage to the home state institution, or if the out-of-state institution is more accessible highways, the student is eligible for Regional Student Program status in any program listed by the institution in the NERSP catalog. Financial need of an applicant is not an appropriate basis for determining eligibility.

The only programs open under the New England Regional Student Program in any academic year are those listed in the NERSP (Apple Book) catalog for that particular year.

Each participating institution determines which of its program will be available under NERSP.

Withdrawal of programs: If an institution decides to withdraw a program from the NERSP (but will continue to offer the program), two years advance notice is required in writing prior to the annual spring meeting of NERSP representatives. Students currently enrolled as NERSP students in programs subsequently withdrawn from the NERSP should be allowed to complete that program as NERSP students.

Admissions Preference/Priority: Applicants for admission under the NERSP are given the same preference as any other applicant.

Transfer students: Both internal and external transfer students are accepted in NERSP. In both cases the student is eligible for NERSP tuition charges from the first semester he/she is enrolled in the program. If a student transfers out of a NERSP program but remains in the institution, that student is charged out-of-state tuition from the first semester of enrollment in the new program.

Students applying to the NERSP are to be notified of their tuition status upon acceptance as a NERSP student to the institution/program. It is the student's own responsibility to request NERSP status from the institution when he/she applies. The institution has no obligation to inform the student of the NERSP and no obligation to give retroactive tuition reduction.

Tuition charges: Any student enrolled under the NERSP will be charged 50% more than current in-state day tuition rate.

Transfer Applicants

Applicants with previous college credit should furnish official transcripts and course descriptions from post-secondary institutions previously attended. Determination of transfer credit is explained on page 22.

Admissions Policy for Disabled Students

Lakes Region Community College does not discriminate in admissions, or access, to programs based on disabling conditions in accordance with the American Disabilities Act 1990. This policy extends to persons with identified, specific learning disabilities under provision Section 504 of the Rehabilitation Act of 1973. An “otherwise qualified” individual is one who can meet all program requirements in spite of his/her disability. Students with documented disabilities are encouraged to self-disclose their disabilities to be eligible for reasonable classroom accommodations. These students should provide the Accessibilities Coordinator with

the documentation of their disability, including the most recent psychological and academic testing within 3 years. The Student Success Center provides the latest assistive technology as well as tutors and workshops for learning and study strategies, note-taking and organizational skills. For more information, contact the Accessibilities Coordinator (603) 366-5243.

Readmission to the College

A student who has withdrawn from the College, has been suspended, or has not enrolled for three consecutive semesters must apply for readmission through the Admissions Office.

Change of Major

A currently enrolled student who changes major need not submit a new application but does need to complete a Change of Major/Credential form at link provided. Students currently enrolled in a program who wish to be considered for admission to the Nursing or Paramedic programs are required to submit a new application for admission to the Nursing program along with appropriate supplementary materials.

Additional Associate Degrees

A second major is defined as a program of study identified by its own unique title as it appears on the credential, a title different from that of the first major. Students can have only two majors at one time. To declare a second major, the student must submit a dual major request and have successfully completed one semester of coursework.

Students may earn additional associate degrees either by concurrent completion of the requirements of the several degrees or by subsequent study after the first degree is received. The requirements for earning additional degrees are as follows:

Complete all requirements of each program of study, including general education requirements not in common with the additional program(s), and earn a minimum of fifteen (15) additional credits at LRCC, beyond those required for the first and subsequent degrees, *excluding credit by examination*, *credit for experiential learning*, *college level examination program* (*CLEP*), *and transfer credit.* Matriculated students, who want a credential less than a degree, while still pursuing the degree, can pursue the lesser credential as a second major. The student does not have to withdraw from the degree and apply to the certificate.

Tuition and Fees

Tuition

New Hampshire Residents: $215 per credit
New England Regional Student Program (NERSP): $323 per credit
Out-of-state & International: $490 per credit

Veterans and a spouse or child using educational assistance benefits that are living in New Hampshire and attending CCSNH will be charged in-state tuition, without waiting until the ordinary period to establish residency.

GM ASEP and Toyota T-Ten Students

All New England resident students enrolling at Lakes Region Community College in the General Motors ASEP automotive program and the Toyota T-Ten program will be charged in-state tuition rate rather than the New England Regional rate. Full-time status for financial aid and/or insurance purposes requires a minimum of twelve (12) credits each semester, except for GM ASEP and Toyota T-Ten cooperative education students.

Comprehensive Fee

Students enrolled full or part-time, day or evening or online will be assessed a Comprehensive Fee of $9 per credit in each semester of attendance. The fee is administered in part by the Student Senate within administrative guidelines.

Laboratory/Clinic/Practicum

A fee will be charged for laboratory/clinic/practicum or other similar experiences. This fee will be calculated by subtracting the number of class hours from the number of credit hours and multiplying the remainder by $110 for each course. This fee will be added to the normal tuition charge for that course. This fee will be charged to all students with no exceptions. Fees will not be charged for co-ops and internships.

Example:	**CL**	**LAB**	**CR**	
BIOL145L Anatomy & Physiology I	3	2	4	4 - 3 = 1 x 110 = $110

Academic Fees

Automotive Supply Fee	$40.00	Excludes AUTO175L,176L, 275L, 290L
Automotive Tool Fee (one time)	$600.00	AUTO 128L, 130L, 131L, 133L, 138L
Automotive Certification Prep Resources	$40.00	AUTO 120L, 121L, 122L, 125L, 126L, 152L, 222L, 245L, 281L
Culinary/Pastry Arts Supply Fee	$400.00	CULA 146L,147L,151L,220L, 225L, 254L, 255L, 256L, HOS113L
Computer Information Systems Vendor Test Out Fee	$129.00	CIS 133L,136L, 261L, 267L, 262L, 252L, 248L
Fire Science CPR Certification Fee	$20.00	FIRE 225L
Fire Science Fire Academy Fee	$1,000.00	FIRE 200L
Fire Science Fire Academy Fee	$2,000.00	FIRE 180L
Fire Science SCBA (Self Contained Breathing Apparatus)	$350.00	FIRE 136L, 180L, 200L
Fire Science Turn Out Gear*	$100.00	FIRE 136L, 180L, 200L
Fire Science AEMT Materials and Equipment Fee	$125.00	FIRE 238L
Fire Science EMT Materials and Equipment Fee	$100.00	FIRE 225L
Fire Science NREMT AEMT Practical Exam Fee	$136.00	FIRE 238L
Fire Science NREMT EMT Practical Exam Fee	$150.00	FIRE 225L
Fire Science NREMT EMT Cognitive Exam Fee	$98.00	FIRE 225L
Fire Science NREMT Paramedic Cognitive Exam Fee	$136.00	FIRE 225L
Fire Science Uniform shirt	$10.00	FIRE136L, 200L,180L
Fire Science Uniform shirt	$30.00	FIRE 225L,238L
LNA Competency Exam – Written	$110.00	NURS 051L
LNA Competency Exam – Clinical	$80.00	NURS 052L
LNA Drug Testing Fee	$42.00	
Marine Technology Materials Fee	$40.00	MAR 121L, 126L, 127L, 224L, 226L, 232L
Medical Assistant Liability Insurance	$25.00	NCHC 200L
Medical Assistant Certification Exam	$160.00	NCHC 200L
Medical Assistant Criminal Background Check	$25.00	NCHC 200L
Medical Assistant Certification Prep Materials	$83.00	NCHC 200L
NABCEP Associate (students)	$80.00	Determined on a case by case basis
NABCEP Associate (non-students)	$100.00	Determined on a case by case basis
Nursing ATI Exam Prep Fee	$700.00	NURS 132L,142L,222L,232L

Nursing Clinical Surcharge	$500.00	NURS 132L,142L, 222L,232L
Nursing Drug Testing Fee	$42.00	NURS 132L,222L
Nursing Liability Insurance Fee	$25.00	NURS 132L,222L
Nursing Sim Kit	$41.00	NURS 132L,222L
Paramedic Materials and Equipment Fee	$513.00	PAMD 110L
Paramedic Materials and Equipment Fee	$300.00	PAMD 120L
Paramedic Clinical Surcharge	$542.00	PAMD 210L
Paramedic Clinical Surcharge	$860.00	PAMD 220L
Student Personal Professional Liability Insurance	$20.00	Per year for programs w/clinical

Non-Academic Fees/Fines

Credit by Exam	$25/credit
Diploma Replacement	$20.00
Drug Testing Fee	Up to $125/test
Experiential Learning	50% of credit cost of tuition
Library Late Fees	$.25/item/day
Library Fees	cost of replacement for lost or damaged materials
Nelnet Payment Plan Fee	$35.00
Proctor Exam Fee for non-CCSNH students	$50.00
Skill Assessment Manager	$9.00
Transcript	$5.00
International Student Admissions Fee	$100.00
Late Payment Fee	$50.00
Protested Checks Fee*	$35.00

Senior Citizen Tuition

Senior citizens (65 or older) will pay half tuition on a space available basis for credit courses. They are also responsible for the Comprehensive Student Service and Academic Instruction fees. Eligibility requires New Hampshire residency. Senior citizens will pay full tuition for non-credit courses and workshops.

Payment of Tuition

Payment or arrangements for payment is required of all semester charges 14 calendar days prior to the start of the part of term. Failure to make payment in full or arrangements for payment 14 days prior to the start of the part of term may result in the cancellation of the student's registration. Students will then need to re-register and make payment or arrangements for payment providing that the course(s) have space available. Each semester/session of the academic year, including summer sessions, is billed separately and tuition is based on a per credit charge. Students enrolled in 12 credits or more are considered full-time students. Credits earned during co-op work experience are college credits for which there are tuition fee charges payable by the student. It is the responsibility of the student to report all scholarships received to the Bursar's Office.

Students must log into the Student Information System (SIS) to receive/view bill.

Delinquent Accounts

An account becomes delinquent 30 days after the start of the semester. Any account unpaid or in arrears for more than 60 days will be referred to an outside collection agency. Please note that additional fees of up to 35% of the amount owed to the College will be assessed by the collection agency. Once the account goes to a collection agency, the student can no longer rectify the situation with the College but must resolve it directly with the agency.

Student Account Deferred Payment Based on Student Hardship

If a student requests a deferred payment based on known student hardship, a request in writing should be submitted to the President of the College. Evidence of good cause to receive a student hardship deferral shall include, but not be limited to:

- Death in the student's family
- Medical emergency
- Military commitments
- Family emergency or
- A similar problem beyond the control of the student

Within 10 calendar days of the date of receipt of the student's request for a deferral, the president shall grant or deny the request.

Upon approval, the following requirements and procedures shall apply:

- The president shall execute a written agreement with the student.
- The agreement shall state when full payment is due.
- The agreement shall state how full payment should be made.
- The agreement shall be dated and signed by the president and student.
- The agreement shall be filed in the Bursar's Office.

Payment Plan

A payment plan is available through NELNET. Students may sign up for a payment plan by logging into their Student Information System (SIS) then click on the student tab, student account, "View, and Pay Account". For questions, please contact the Business Office at 603-366-5245.

Tuition Refund Policy

Students who officially withdraw from the college or an individual course by the end of the fourteenth (14th) calendar day of the term will receive a 100% refund of tuition, less non-refundable fees. Students in classes that meet in a format shorter than the traditional semester (15-16 weeks) will have seven (7) calendar days from the designated start of the term to withdraw for a full refund. If the seventh (7th) or fourteenth (14th) calendar day falls on a weekend or holiday, the drop refund date will be the first business day following the weekend or holiday. Exception: students in courses that meet for two weeks or fewer must drop by the end of the first day of the class in order to get a 100% refund. Students registered for workshops must withdraw in writing at least three (3) days prior to the first workshop session in order to receive a full refund of tuition and fees.

All Federal Title IV funds (i.e., Pell, SEOG, and Perkins Loan) are prorated and refunded according to the rules and regulations mandated by the U.S. Department of Education.

Tuition Assistance Return Schedule

16-week Course Withdraw submitted

- Before or during weeks 1-2 100% return

- During weeks 3-4 75% return
- During weeks 5-8 50% return
- During weeks 9 40% return (60% of course is completed)
- During weeks 10-16 0% return

8-week Course Withdraw submitted

- Before or during week 1 100% return
- During week 2 75% return
- During weeks 3-4 50% return
- During week 5 40% return (60% of course is completed)
- During weeks 6-8 0% return

Tuition Credit/Waiver

Under special circumstances and for compelling reasons beyond a student's control, the College may grant an exception to the above policy or grant tuition credit or waiver. Students may request such an exception by completing the Financial Appeals form. The request must be made in writing and supporting documentation is required. The student's request must support that the circumstances leading to the student's withdrawal were outside of the student's control. Criteria for consideration may include a death in the family or a medical emergency. In addition, a tuition credit or waiver may be granted only when tuition has been paid. Tuition credits or waivers are not given when the account shows an outstanding balance.

Financial Aid

The Financial Aid Office encourages students to apply for financial assistance. The basic forms of assistance available are scholarships, grants, loans and work-study. The Federal College Code on the FAFSA for LRCC is: 007555.

To be considered for aid, students must be admitted into a program of study that leads to a degree or certificate and must be making satisfactory academic progress. In order to be evaluated for aid, the student must complete the following:

The Free Application for Federal Student Aid (FAFSA). File the FAFSA electronically at www.studentaid.gov. Any other required documentation upon request.

Note: Federal, state and private scholarship funds are often limited. Applicants with greatest financial need receive first consideration for assistance. Application materials should be filed by May 1 to receive priority consideration.

Admission, registration and class attendance must be confirmed before financial aid reimbursement expense checks can be issued to the student. **Please allow at least 30 days from the beginning of the first class.**

Sources of Financial Aid

The following are brief descriptions of various programs, scholarship opportunities, and miscellaneous sources of possible support. More detailed information about these matters and application procedures can be obtained by visiting the Financial Aid webpage.

Grants

Federal Pell Grants

The Federal Pell grant program provides need-based grants to low-income students. Pell grants range from $380 to $7395 for full-time students. Use the FAFSA to apply for a Federal Pell Grant. Students with a bachelor's degree are not eligible.

Federal Supplemental Educational Opportunity Grant Programs (FSEOG)
This is a smaller grant program funded by the federal government and the institution for the neediest students. Awards range between $100 and $1000 at the colleges in this system. Use the FAFSA or Renewal FAFSA to apply for this grant. Students with a bachelor's degree are not eligible.

Loans

Direct Subsidized Student Loan
This is a loan program that is subsidized by the federal government (subsidized loan is a loan that will not accrue interest during enrollment periods of at least half-time status). Students enrolled below ½ time (less than 6 credits) for any given term are ineligible for loan disbursements. First time borrowers must complete entrance counseling and a master promissory note at https://studentaid.gov/.

Direct Unsubsidized Student Loan
This loan program follows similar criteria as the subsidized student loan except the student is liable for the interest while in school. Student enrolled below ½ time (less than 6 credits) for any given term are ineligible for loan disbursements. First time borrowers must complete entrance counseling and a master promissory note at https://studentaid.gov.

Direct Parent Loan for Undergraduate Students (PLUS)
Parent Loans for Undergraduate Students are available to provide additional funds for educational expenses. These loans are made to parents of dependent undergraduate students. Parents may borrow up to the student's cost of attendance less anticipated financial assistance. Additional information is available on the Financial Aid webpage.

Alternative Loans for Parents and Students
These programs are developed by various agencies to assist parents and students with their educational expenses. Such funds may assist families that do not qualify for, or need to supplement, other forms of financial aid. More information is available on the Financial Aid webpage.

Federal Work-Study Program

There are several different work-study opportunities at Lakes Region Community College. Make an appointment with the Financial Aid Office to see if you are eligible.

On-campus part-time jobs are available throughout the campus.

Off-campus limited part-time jobs are available throughout the community in non-profit agencies. Students must provide their own transportation.

America Reads Program offers part-time placement in area elementary schools. Students provide reading tutor skills for grades K-3. Geared for Early Childhood Education majors, this opportunity is also open to all eligible students. Students must provide their own transportation and background search costs.

Scholarships

Students are urged to investigate private scholarship opportunities. Many religious organizations, clubs, businesses, banks and individuals provide scholarship assistance. Visit our Financial Aid webpage at www.lrcc.edu for more scholarship opportunities and applications. The following are examples of such voluntary assistance:

Lakes Region Scholarship Foundation
Several scholarships are offered to residents of Laconia, Gilford, or Belmont, or to graduates of Laconia,

Gilford, or Belmont High Schools. Applicants are selected based on academic achievement, extracurricular activities, self-help through employment and savings and with consideration of students' plans and financial needs.

New Hampshire Charitable Foundation Scholarships
New Hampshire residents pursuing undergraduate study are eligible to apply for scholarships based upon academic achievement, extracurricular participation and demonstrated financial need.

NH Scholars CCSNH Scholarships
Each CCSNH college will provide annually a $500 scholarship for up to 12 scholarships in high schools in its region for students who successfully complete the NH Scholars program (max cost = $6000).
The scholarship will be applied to the first $500 of tuition and fees only at the CCSNH institution awarding the scholarship. Scholarships are not transferrable to other CCSNH colleges.
The scholarship is valid for one year following the student's high school graduation date.
While priority will be given to high schools within their regions, Presidents, at their discretion, may offer scholarships to students outside their respective regions.

SEMA Memorial Scholarship Fund The SEMA Memorial Scholarship Fund was founded in 1984 to foster leadership in the specialty equipment marketplace and support educational goals for students pursuing careers in the automotive aftermarket. SEMA Scholarships are awarded annually and have been distributed to hundreds of students in support and encouragement of their educational goals. More information and applications can be found on the SEMA website, www.sema.org/scholarships.

Other Sources of Financial Aid

Veterans Administration Assistance Program
Programs of the Lakes Region Community College are approved by the New Hampshire State Approving Agency for Veterans Education Programs for persons eligible for educational benefits (GI BILL®). Students who have questions about their eligibility should call the Veterans Administration at 1-888-442-4551. Students who request veterans' educational assistance are required to have all previous postsecondary experience evaluated for possible transfer credit to be eligible for benefits. **VA Students enrolled under the Veterans Educational Assistance Improvement Act of 2010 shall be charged in-state tuition.**

Veterans' Dependents and Survivors
Education benefits for up to 45 months may be paid to a student whose parent was permanently disabled or died in service or of service-connected disabilities. This benefit is also extended to wives, widows, or widowers. There are also allowances for non-service-connected disabilities. Contact the Veterans Administration at 1-888-442-4551 or www.va.gov for more information.

"GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at https://www.benefits.va.gov/gibill."

Refund of Title IV Funds for Financial Aid Recipients

A Financial Aid recipient who does not complete all of the days he/she was scheduled to attend during the payment period may be required to repay a portion or all of their Federal Pell Grant, Federal SEOG Grant and Federal Perkins Loan funds to the United States Department of Education. In terms of the Direct Loan program (student loans), the unearned portion of the loan money will be returned to the Department of Education.

The exact amount returned will vary depending on the amount of grant and loan money received and at what point the student withdraws from the College.

In addition, the student is liable for the balance owed the College for tuition, fees and, if applicable, room and board. The student will receive a revised statement of account for the expenses incurred, which will include the reduction and/or loss of Federal Title IV funds.

NOTE: Federal Direct Loans (DL). If a student is in the first year of an undergraduate program, is a first-time borrower under the DL Program, and withdraws from the College prior to 30 days into the term, the student becomes INELIGIBLE for the Direct Loan.

Financial Aid Satisfactory Academic Process Policy

The Financial Aid office is required by federal regulations to periodically review financial aid recipients to ensure that they are making academic progress towards the completion of their program of study. Satisfactory academic progress for financial aid recipients is measured by both qualitative and quantitative standards and is an assessment of a student's cumulative academic record while in attendance at the institution.

Qualitative Standard

Cumulative GPA Component

A student must maintain a minimum cumulative grade point average as noted below to be considered as making satisfactory academic progress.

Minimum Cumulative Grade Point Average Required for the Program

Total Credits Earned Toward Program	Certificate	Associate
0-13	1.50	1.50
14-27	2.00	1.70
28-40		1.80
41+		2.00

Quantitative Standard

Completion Rate Component

A student must successfully complete more than two-thirds (66.66%) of the total credits s/he attempts throughout his/her academic career at the College. All attempted credits resulting in either an academic grade or administrative transcript notation will be included in the quantitative calculation.

For example, a student who has enrolled in 36 credits throughout their academic career at the College must pass more than 24 credits to be making satisfactory academic progress.

Maximum Timeframe Component

A student may receive student federal aid for any attempted credits towards his or her program of study as long as those credits do not exceed 150% of the published length of the student's program of study.

For example, a student enrolled in an eligible 24 credit certificate program can receive financial aid for up to 36 credits attempted. Likewise, a student enrolled in a program of study that requires 64 credits to earn the degree can receive student federal aid for a maximum of 96 credits attempted.

Academic Periods Included in the Review

The qualitative and quantitative standards of the Satisfactory Academic Progress policy will be used to review the academic progress for all periods of the student's enrollment. Even periods in which the student did not receive FSA funds will be included in the review. Additionally, periods for which the student was granted academic amnesty will be included in the review.

Satisfactory Academic Progress Review Process (SAP):

Question	Answer
When is my academic progress reviewed?	At the end of each semester
Are there probationary periods?	Yes, Probation prior to Suspension
Is there an appeal process?	Yes
Can you re-gain Financial Aid eligibility once you lose it?	Yes

The qualitative and quantitative components of the SAP policy will be reviewed at the end of each semester within the academic year of the student's program of study.

Students who meet SAP standards will be coded as making satisfactory academic progress and will retain eligibility for Student Federal Aid for the following semester.

Students who do not meet SAP standards will be placed on SAP probation for one semester. Students placed on SAP probation will retain their eligibility for Student Federal Aid for the following semester.

Students placed on SAP probation:

At the end of the probationary period, SAP standards will be reviewed. If the student meets SAP standards, s/he will once again be coded as making satisfactory academic progress and will retain eligibility for Student Federal Aid for the following semester.

If the student is still unable to meet SAP standards, s/he will no longer be eligible to receive FSA at the institution until such time that s/he is able to meet the standards of SAP.

Repeat Courses

One time only, financial aid will cover a repeated course that has been previously passed. Passed is identified as any grade higher than an "F," regardless of any school or program requiring a higher qualitative grade or measure to have been considered to have passed the course.

A student may be repeatedly paid for failing/withdrawing from a course. However, if a student passed a course once, then is repaid for taking it, and fails or withdraws the second time, that failure counts as their paid retake, and the student may not be paid for retaking the course a third time.

If a program of study requires students to retake all of the coursework for a term in which a student fails a course, any courses retaken that were previously passed in this case are not eligible for Title IV aid.

Transfer Credits

Credits that are transferred in from another institution and apply to the most current major will be excluded from the student's cumulative CGPA and the completion rate components. However, they will be included in the calculation for the maximum timeframe component.

Consortium Credits

All courses taken at an institution other than the home institution through an official consortium are included in the calculation for completion rate and maximum timeframe components but are excluded from the student's cumulative CGPA component.

Remedial Courses

Credits from these courses will be included in the calculations for all three components of the satisfactory academic progress review. Students are only eligible for federal financial aid for up to 24 credit hours of this type of coursework.

Incompletes

All incompletes must be resolved by the end of the third week of the semester following the receipt of the incomplete grade. If it is not, the grade is either automatically changed to an "F" or is considered to be an "F" for all components of the satisfactory academic progress review. Financial Aid can be withheld until Incompletes are resolved.

Audit Courses

Financial Aid does not cover any courses a student audits. Further, audit courses are not included for any of the calculated components. Full tuition is charged for all audited classes. See full audit policies.

Credit by Examination

Financial Aid does not cover courses in which a matriculated student earns credit through Credit by Examination. Credit by Examinations count toward the maximum time frame component but are excluded from the student's cumulative CGPA component and completion rate components. The cost of credit by examination is $25 per credit.

- Not all courses are appropriate for credit by examination. Departments will be responsible for determining if a course is eligible for credit by examination.
- Credit by examination may be earned only by a matriculated student who, by study, training or experience outside the CCSNH College has acquired skill or knowledge equivalent to that acquired by a student enrolled in the College. A student is eligible for a maximum of sixteen (16) credits through credit by examination.
- If the student passes the exam, using criteria developed by the respective department, appropriate credit(s) shall be applied to the student's academic record and a notation entered on the student's transcript indicating successful completion. Since a traditional grade (A-F) is not entered, the Credit by Exam is not calculated into the student's GPA. If the student fails to pass the exam, no entry is made on the academic transcript, but a record of the unsuccessful completion will be maintained in the student's file.
- A student who does not pass the Credit by Exam will be ineligible for another Credit by Exam in that course.

Appeal Process

A student who becomes ineligible for federal student aid due to not meeting the financial aid standards of satisfactory academic progress may appeal for a review of that determination. A student who believes s/he has extenuating circumstances that affected his or her ability to progress satisfactorily should appeal in writing within 30 days of the date of the letter indicating a loss of financial aid eligibility. The letter should be addressed to the Financial Aid Appeals Committee and be submitted to the Financial Aid office. A successful appeal may preserve the student's eligibility for federal student aid in the following semester.

Change of Program

A student who changes their academic program may request an appeal in that determination if they have changed programs while enrolled at their current college. If this appeal is approved, then only those courses applicable to the new program will be evaluated for the Completion Rate and CGPA components. However, all courses attempted will be evaluated for the Maximum Timeframe component. If under these circumstances the student is making satisfactory academic progress, the student will regain eligibility for student aid. If under these circumstances the student is not making satisfactory academic progress, the student will not regain eligibility for student aid at this time.

For further information about the Financial Aid Satisfactory Academic Progress policy, please contact the Financial Aid Office.

Complete Financial Aid Handbook is available on the Financial Aid webpage.

Veteran's Administration

The Veteran's School Certifying Official processes certifications electronically to the Veteran's Administration. Any changes in enrollment status will be reported to the VA, which may affect your benefit payments.

New Veteran Students:

- Apply for admission into an eligible degree or certificate program
- Complete VA Form 22-1990 (Application for Educational Benefits, GI BILL®). It may take eight-twelve weeks for your claim to be processed.
- If you have already applied for the benefits, please provide a copy of your Certificate of Eligibility (COE), issued by the VA, to the Veteran's School Certifying Official in the LRCC One-Stop.

You will find additional information on how to apply for educational benefits, benefit eligibility and changes in enrollment status online, or call the Veterans Administration at 1-888-442-4551.

"GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government web site.

Student Services and Resources

Academic Advising

Academic advising is available to all admitted students. A faculty advisor is assigned to assist students from admission through graduation. The academic advisor helps a student register for courses and approves all registration decisions; including course add/drop changes and withdrawals. The advisor assists students in identifying academic and personal resources on campus, and helps students select and choose various program options. Advisors may help students with decisions about career goals or further education.

Activities

Students are encouraged to organize their own activities guided by faculty advisors and supervised by the Associate Vice President of Academic and Student Affairs. The Student Senate shares in the responsibility of promoting and coordinating student events and activities and is responsible for allocating and disbursing student activity funds to support extracurricular activities/sports.

Activity Period

Activity periods with minimal classes scheduled provide time for college activities including Student Senate and Honor Society meetings; student participation in clubs and activities of special interest; faculty and staff meetings; and seminars and discussion groups. **Activity Periods are Tuesdays 12:00-1:00pm and Wednesdays, 12:00pm – 1:00pm**

Bookstore

All required textbooks and supplies, as well as college novelty items, are available through the online bookstore, Follett Higher Education Group, a private enterprise not subject to state rules and regulations. For more information visit the bookstore website.

Student Success Center

The Student Success Center is available to all students and offers a full range of academic and support services to enhance the educational opportunities for all students by giving them the tools to foster independent learning

The Student Success Center provides training in organizational and study skills, note taking, career planning and time budgeting. Tutoring is offered in most subject areas. Students who need academic support or who want to advance more rapidly in an academic area may contact the Student Success Center at (603) 524-3207. Staff members will assist in meeting the individual student needs. Staff will also work with faculty for additional support or conferencing.

Student support counselors provide general support, including course registration, referral to outside agencies and mental health referrals to all students. Counselors are available Monday through Friday and are located in the Student Success Center (Turner 119). These services are offered free to students with the aim of assisting students in successfully meeting academic and/or professional goals.

LRCC collaborates with Lakes Region Mental Health to provide mental health services to our students. A licensed clinical therapist provides limited counseling hours on campus. Please contact the support counselors for appointments. Students needing longer-term support will be referred to service providers in their local area. All counseling provided by LRMH is confidential.

Tutoring

Tutoring is an important service the school provides to our students free of charge. Students requesting tutoring services should contact the tutor coordinator at LRCCTutoring@ccsnh.edu. Tutors are available for most courses including math, college writing, accounting, computers, and business courses

Accessibility Services

In compliance with Section 504 of the 1973 Rehabilitation Act and the Americans with Disabilities Act of 1991, LRCC does not discriminate against students with disabilities in the admission process or in accessing opportunities for academic success. While students are never required to disclose a disability or relevant diagnosis, we encourage them to share their circumstances with the Accessibility Coordinator in order to access qualifying academic and residential accommodations. The services available to students with disabilities vary according to the students' individual needs. Additionally, all information regarding students' disabilities is kept confidential (even from their instructors or family) unless a student supplies written permission otherwise. Students with documented disabilities (or without documentation, but who suspect that they might have a disability), should contact the Accessibility Coordinator to discuss support services at LRCCAccessibility@ccsnh.edu or by calling 603-366-5243.

Bennett Library

Bennett Library supports and enhances on-campus and distance learning for LRCC students with a wide variety of print, electronic, and multimedia resources. Reference and interlibrary loan services assist with research and informational needs. The Bennett Library webpage provides 24/7 access to the online catalog, Ebscohost databases, Ebrary, netLibrary electronic book databases, and web links to other informational resources. The library staff collaborates with faculty to provide materials supporting programs, the mission of the College, and to provide instruction to students in learning how to find, evaluate and use information. Library computers offer internet access and Microsoft Office software applications for research and class projects, wireless access is also available. The library is open year-round with abbreviated hours during the summer and holidays.

Housing

LRCC offers students interested in a full campus life experience the opportunity to live on campus. The Apple Ridge Student Apartments are fully operated by LRCC staff with a live-in Campus Life Director and Resident Assistants living among the residential student population. All students live in one, two or three-bedroom furnished apartments with fully equipped kitchens. Interested students must be admitted to a program carry a minimum course load of twelve (12) credits per semester, apply for housing and submit a housing deposit. Housing assignments will be made on a first come first serve basis with preference to our returning students. Costs and additional information are available on the LRCC webpage or by calling 603-366-5387.

Student Email Accounts

The college email network facilitates communication between students, faculty and the college community, including Canvas. Students will be assigned a student email address within 24 hours of course registration or upon being admitted to the college. This email account will be the official account for all electronic communication with the College.

Navigate

Students may access their student planner, register for courses, view advisor information, and to-do checklist in Navigate. Navigate is found on the student resources page. From the LRCC homepage select myLRCC and then choose the Navigate for students' button.

Student Information System

Students may access their college information online by clicking on myLRCC on the LRCC webpage. The Student Information System (SIS) allows current students to register for classes, check seat availability, look up instructor email addresses, and to view class schedule, grades, financial aid status, student billing account and personal information.

LRCC Alerts

Lakes Region Community College students are automatically registered to receive alerts via college email but need to register (opt in) and provide emergency contact information to receive ALERTS via phone and/or text messaging. To register for LRCC Alerts, log into the Student Information System (SIS) and select LRCC Alerts under Personal Information.

There is no charge for LRCC ALERTS; however, students should check their phone plans for potential charges associated with text messaging. Please be aware, LRCC will not reimburse for text messages.

Student Senate

The experience of attending Lakes Region Community College is not limited to the academic life of the student. Our college philosophy is to educate the entire person so he or she adapts to the ever-changing world.

The Student Senate serves as the governing group for the student body, with representatives elected from across the College. These representatives accept the challenges of leadership, authority, and responsibility in dealing with their peers, faculty and administration. The Student Senate provides experiences promoting the general welfare of every student, plans social and cultural activities, and manages the expenditure of student funds. Activities may include field day, films, concerts, bus trips, lectures, clubs, athletics, and social events.

PTK National Honor Society

Students who have completed a minimum of twelve (12) college-level credits with a minimum of a 3.5 cumulative grade point average are invited to become members of Phi Theta Kappa National Honor Society for

two-year colleges. The society was established to maintain and perpetuate the qualities of scholarship, leadership, service and fellowship. Initiation ceremonies are held during the academic year. Only matriculated degree students, full-time or part-time, day evening or online, are eligible. Certificate students are not eligible.

Academic Policies and Procedures

Academic Philosophy

As an open institution maintaining strong ties to the community, our goal is to engage students, faculty, and staff to build a collaborative learning environment.

At Lakes Region Community College

- We recognize, value, and promote the uniqueness and diversity of our students, both as individuals and as persons with varying educational goals and potential
- We believe our students learn through self-exploration, rigorous academics, and experiential discovery
- We value and present a challenging and supportive learning environment which enhances students' abilities to think critically, to communicate effectively, and to demonstrate competencies and skills needed to contribute productively to their communities and beyond
- We value educating our students beyond our classroom walls and into the community at large
- We believe in fostering relationships between students and employers to promote lifelong professional interactions
- We value and nurture curiosity, inquiry, critical thinking, and creativity within the safe but challenging confines of a rigorous academic environment that appreciates multiple perspectives
- We model, advocate, and expect ethical and moral behaviors which allow for open and constructive conversations

Definition of an Educated Person

An educated person is an individual who has undertaken a lifelong journey of discovery and learning. Throughout the lifelong process of acquiring skills and knowledge, the individual can function effectively throughout his/her life and career.

An educated person has the tools to be a productive member of society and to work for changes to better the local and global community.

An educated person values and pursues knowledge and actualizes his/her capacity for human relationships; for communication; for critical thinking and creative problem solving/decision making; for a global and diverse perspective; for mathematical and scientific processes; for information literacy; and for career-based technical skills.

Academic Requirements

Associate Degree

The associate degree prepares students for immediate employment or the opportunity to further their education. The curriculum provides students with the tools to think critically, reason, compute, communicate, and adapt to change.

To earn an associate degree from Lakes Region Community College, a student must:

- Successfully complete at least sixty (60) credits in college- level coursework (excluding remedial or developmental coursework/credits – i.e., those identified as being "for institutional credit only").

- Earn at least fifteen (15) credits in coursework offered by Lakes Region Community College with at least eight (8) of those credits earned in advanced-level courses in the student's major field.
- Achieve a Cumulative Grade Point Average of 2.0 or higher in all courses taken at the College (including remedial or developmental coursework/credits).
- Credit granted through transfer credits or credit by exam will count towards degree/certificate requirements, but will not be included in computing grade point averages.
- Completion of INDL120L College Essentials.

Associate in Science

In addition to meeting the above requirements, a student must meet the following course distribution requirements to earn an Associate in Science or Associate in Applied Science Degree:

- earn at least thirty (30) credits in program specific courses in a defined major field.
- earn at least 20 credits in general education courses, including one course of three (3) credits or more in:
    - English Composition (required).
    - Humanities/Fine Arts/Foreign Language (required).
    - Quantitative Reasoning/Mathematics (required).
    - Science (required).
    - Social Sciences (required).

The remaining general education credits to reach the required total of twenty (20) general education credits may be taken in Humanities/Fine Arts/Foreign Language, Quantitative Reasoning, Science, or Social Sciences. The remaining ten (10) credits to reach the required minimum total of 60 credits may be assigned in any subject are as deemed by the faculty to be appropriate to the curriculum.

Associate in Applied Science Degree

In addition to meeting the above requirements, a student must meet the following course distribution requirements to earn an Associate in Applied Science:

- earn at least 30 credits in program-specific courses in a defined major field;
- earn at least 15 credits in general education courses, including one course of three (3) credits or more in:
    - English (required);
    - Humanities/Fine Arts/Foreign Language (required);
    - Mathematics (required);
    - Science (required)
    - Social Sciences (required);

The remaining fifteen (15) credits to reach the required minimum total of 60 credits may be assigned in any subject area, as deemed by the faculty to be appropriate to the curriculum.

Associate in Arts

Students may earn an Associate in Arts degree in Liberal Arts or in a specified major field. In addition to meeting the requirements set forth in Section 1.a above, a student must meet the following course distribution requirements to earn an Associate in Arts degree. Each category below must include at least one course worth at least three (3) credits:

- English Composition 4 credits English Literature, Composition (requiring English Composition as a prerequisite), or Communications
- 6-8 credits Quantitative Reasoning/Mathematics
- 7-8 credits Natural or Physical Sciences (including at least one lab science)
- 9 credits Social Sciences
- 9 credits Humanities/Fine Arts/Foreign Language

AND EITHER
Electives in Specialized Major Field 20 -24 credits
Minimum 60 credits

OR (for generic AA in Liberal Arts)
Liberal Arts Electives (from above list) **AND** 12-15 credits
Open Electives 9 credits
Minimum 60 credits

Certificate

All certificate programs require that students

- Successfully complete all program credits in college-level coursework designed to meet defined competencies in an occupational field (excluding remedial or developmental coursework/credits – i.e., those identified as being "for institutional credit only").
- Earn at least six (6) credits or 25% of total program credits, whichever is larger, in coursework offered by and under the control of the college awarding the degree
- Achieve a Cumulative Grade Point Average (CGPA) of 2.0 or higher in all courses in the Certificate program (only) taken at the college awarding the certificate.

Colleges reserve the right to automatic conferral of certificate programs.

Assignment of Credits

A credit hour shall be allocated based on the below:

Category	**Contact Hours/Week**	**Contact Hours/Semester (based on a minimum 15-week semester)**
Class	1	15
Laboratory	2-3	30-45
Clinical	3-5	45-75
Practicum/Fieldwork	3	45
Internship	3-6	45-90
Cooperative Education	Varies by Department	Varies by Department

Course Credit Hour Designation

One instructional hour is equal to 50 minutes. Next to each course is the course credit breakdown, shown in three numbers. The first number represents the number of lecture hours per week. The second number represents the number of labs, clinical, cooperative education, internship, or practicum hours per week. The third number represents the total number of credits.

Example:

BIOL145L Anatomy and Physiology	3-2-4
PSYC125L Introduction to Psychology	3-0-3

The academic instructional semester consists of no less than 15 weeks and no longer than 16 weeks or their equivalent including final exams. Courses that are delivered in alternate time schedules including summer semester (8-weeks, 12- weeks, etc.) will be shown the same as above, but will be scheduled to reflect the equivalency of the total number of hours. For example, PSYC125L offered on an 8-week schedule would meet 6 hours per week and earn the same 3 credits.

Course Credit Unit Instruction

Students who complete the competencies of a unit of a course may receive credit for the portion(s) successfully completed. For information about this process contact the student advisor. Note: Students required to take a three-credit (unit) course may not split units between two or more courses to satisfy one course requirement.

Residence Credit

Students seeking a degree at the College must earn a minimum of fifteen (15) semester hours from Lakes Region Community College. At least eight (8) semester hours of the courses taken to meet the minimum residency requirements shall be advanced courses in the student's major field of study or in appropriate advanced courses in related fields. Advanced courses are associate degree program courses listed in the first and second semesters of the second year, or in the second semester of the first year of one-year programs. Students seeking a certificate must complete a minimum of six (6) credits or 25% of the credits, whichever is larger, from Lakes Region Community College. For a certificate, students must complete at least six (6) credits or 25% of the credits, whichever is larger, from Lakes Region Community College.

Directed Study

Under certain circumstances a matriculated student may take a course in a semester when the course is not offered either during the day or evening. A directed study allows a matriculated student to pursue the published learning objectives/outcomes for a course independently under the guidance of a qualified faculty member. *Students must be matriculated and have a minimum cumulative GPA of 2.0 to be eligible for a Directed Study.*

The student must demonstrate compelling reasons why the course could not be taken in a subsequent semester or was not taken in the semester when it was originally offered in the curriculum. Barring exceptional circumstances, a directed study will not be granted for a course currently being offered in the day or evening divisions.

Independent Study

Opportunities for credit-bearing independent study are available to matriculated students who wish to explore areas of a discipline not covered in the normal curriculum but related to the student's program. *Independent study courses are not available to non-matriculated students. Students must be matriculated and have a minimum cumulative GPA of 2.0 to be eligible for an independent study.* The intent of independent study is to expand a student's learning experience beyond the normal program curriculum. Typically undertaken for one to three credits, independent studies may not be done in lieu of any course existing in the college catalog. Financial aid may not cover the cost of the independent study if it does not meet graduation requirements.

Distance Learning

Distance Learning courses are offered in a 100% online environment using the Canvas learning management system. All competencies and knowledge presented are the same as the student would experience in a classroom-based course. A student may add a 100% online course up to the official start date of the semester. Once the semester has started a student may add only with the permission of the instructor.

Definitions of Modalities

Online – Online courses are designed asynchronously such that material is delivered electronically without required meeting times. Online courses are intended to be structured so that students can complete work on a timeline that fits their own schedule provided that they meet assignment deadlines.

Remote – Remote courses (also called 'Zoom Live' courses) are designed as synchronous learning classes. Students are expected to be present virtually at specific meeting times each week to learn material and engage in class. Remote courses are similarly structured to in-person courses with the exception being that meetings are virtual.

Hybrid – Hybrid courses are designed to have a mixture of asynchronous work similar to an online course offering as well as a series of in-person class meetings. Class meetings are not as frequent as in-person or remote courses. To successfully complete a hybrid course, students must attend the class meetings and complete the online assignments.

FLEX – FLEX courses are designed for students to have the choice to attend class meetings remotely or in-person, or take the class fully asynchronously online. Class meetings will be regularly scheduled (similar to in-person or remote courses) and may have students attend in-person and/or remotely. FLEX courses will also be able to completed in the asynchronous online format.

Alternative Delivery

Alternative Delivery is anything other than the once or twice a week traditional classroom meeting. It includes Distance Learning, flex courses, hybrids and other condensed formats. These methods offer flexibility in scheduling while placing more responsibility for learning on the student. Online Learning and hybrid courses are taught using the Canvas learning management system.

Graduation Requirements

The College has established minimum competencies that must be attained in each program. Students will be awarded upon completion of academic requirements and demonstration of the required competencies.

To be eligible for graduation, students must:

- Satisfactorily complete all requirements in their academic program
- Earn a cumulative grade point average of 2.0 or higher
- Meet all obligations to the College, including payment of all tuition and fees
- Submit an Intent to Graduate form with the Registrar's Office.

The student has the primary responsibility for ensuring that they meet degree and certificate requirements for graduation. The student should initiate at least one meeting with their faculty advisor each semester to ensure all the graduation requirements have or will be met by the intended time of graduation. The Registrar is responsible for the final audit before the student is awarded a degree or certificate. Students needing eight credits or less may walk in the May ceremony as long as they are registered for their outstanding requirements for the summer semester.

Transcripts

LRCC has partnered with the National Student Clearinghouse (NSC) to process official transcripts, and there is a $5 charge to receive one. All college obligations must be met, including student loan payments, outstanding tuition, and payment of fines. Transcripts are released in accordance with the Family Education Rights and Privacy Act of 1974 and will not be released to a third party, including parents and spouses, without written permission of the student. Unofficial transcripts can be viewed on the Student Information System (SIS).

Academic Honesty

Original thinking and intellectual honesty are central to a college education. Research projects require the ongoing use of existing works, but students must conduct themselves with proper regard for the rights of others and of the College, in a context of mutual respect, integrity and reason. Activities such as plagiarism and cheating are not acceptable and will not be condoned by the College. Students involved in such activities are subject to serious disciplinary action.

The following are presented as examples of academic dishonesty:

- Misrepresenting academic work done by someone else as one's own efforts, with or without permission of the person.
- Providing or using prohibited assistance in assignments and examinations.
- Unauthorized communication in any manner with other students during an examination; collaboration in the preparation of reports or take-home examinations; copying, giving aid or failing to follow the faculty member's instructions.
- Tampering with or falsifying official college records.
- Infringing upon the right of other students to fair and equal access to college library materials and comparable academic resources.
- Falsification of data collected for and presented as part of course requirements.
- Presenting as one's own ideas, another person's work or words without proper acknowledgement.

There may be other instances of academic dishonesty, which will be identified by a faculty member.

Academic dishonesty is not tolerated at Lakes Region Community College. Coursework is expected to be done honestly, whether in lab projects, examinations, or term papers. The individual faculty member will make the initial response to academic dishonesty. The instructor should discuss the matter with the student and should include what happened to cause the instructor to think cheating had taken place. The instructor should be specific: cheating was seen first-hand, cheating was reported by another student, work handed in was of much higher quality than usual, etc. es.

Academic Honors

Students whose academic performance warrants recommendation and recognition will receive academic honors.

The President's List recognizes students enrolled in a degree or professional certificate program carrying a minimum of twelve (12) semester hours and earning a grade point average of 3.75 or higher.

The Vice President's List recognizes students enrolled in a degree or professional certificate program carrying a minimum of twelve (12) semester hours and earning a grade point average of 3.3 to 3.74.

High Honors recognizes students enrolled in a degree or certificate program earning a grade point average of 3.75 or higher receive a gold cord and gold tassel.

Honors recognizes students enrolled in a degree or professional certificate program earning a grade point average of 3.3 to 3.74 receive a gold tassel.

During each commencement ceremony, the student with the highest cumulative grade point average in an associate degree program receives recognition as the class valedictorian. The student must complete at least 60 credits at Lakes Region Community College, exclusive of transfer credits and waivers.

Determination of Grades

Students will see final grades on the Student Information System (SIS) at the end of each semester/session for each course and are viewable to students who have met all financial and other college responsibilities. Current semester and cumulative grade point averages are not re-calculated until at least one week after the end of each semester in August, December, and May, once grades are received for all courses.

Grade Point Average

The grade point average determines academic standing and is computed as follows:

- Multiply the grade points earned in each course by the number of credit hours associated with that course. For each course, this gives a value known as quality points.
- Add the quality points from all the courses taken in the semester. Total the number of credits separately.
- Divide the total quality points by the total number of credits. This gives the semester grade point average.

Example	Letter Grade	Grade Points	Number of Credits	Quality Points
ENGL100L English Composition	A	(4)	4	4 x 4 = 16
BIOL144L Human Biology with Lab	B+	(3.3)	4	3.3 x 4 = 13.2
MATH129L Quantitative Reasoning	C	(2)	4	2 x 4 = 8
PSYC125L Introduction to Psychology	D	(1)	3	1 x 3 = 3
TOTAL			15	40.2

A total of 40.2 quality points divided by fifteen (15) credits = 2.68 semester grade point average (GPA)

Grades are recorded as follows:

A	4.0 Points
A-	3.7 Points
B+	3.3 Points
B	3.0 Points
B-	2.7 Points
C+	2.3 Points
C	2.0 Points
C-	1.7 Points
D+	1.3 Points
D	1.0 Points
D-	.7 Points
F	.0 Points

Explanation of Grades

AF: Instructor or administrator-initiated withdrawal at any time for reasons other than poor grade performance, e.g., failure to meet attendance requirements, as published in the instructor's syllabus, violation of the Student Code of Conduct, disruptive behavior, etc. The grade may also be issued if a student registered in a clinic, practicum, internship or lab is deemed unsafe or performing in an unsatisfactory manner as determined by an evaluation by a faculty member/agency supervisor in accordance with department criteria and procedure. A grade of "AF" is calculated into the GPA as an "F".

AU: A course taken as an audit does not earn credit and cannot be used to meet graduation requirements. Not all courses can be taken for audit. *See full Audit Policy.*

CR: Students who are matriculated and earning a C or better on a Credit by Examination receive a grade of CR. The credits earned count toward the degree and are not calculated in the GPA.

I: An Incomplete grade indicates that a student has not completed a major course assignment due to extraordinary circumstances. It is not used to give an extension of time for a student delinquent in meeting course responsibilities. The (I) grade is not calculated into the GPA. However, all work must be completed by the end of the third week of the subsequent semester or the grade defaults to an F. *See full Incomplete policy: Incomplete Course Grade.*

NP: No Pass; unsatisfactory (not calculated into GPA).

P: Pass (not calculated into GPA).

TR: Transfer (not calculated into GPA).

W: Student initiated withdrawal from a course at any time prior to completion of the drop deadline (60% of the course). Does not affect GPA, can be initiated by the instructor if the student, because of extenuating circumstances is unable to initiate the process (e.g., catastrophic illness or injury, job transfer to another state).

WF: Student initiated withdrawal from a course after the drop deadline (60%) of the course; student has a failing grade at time of drop, as determined by the instructor. A "WF" is calculated into the GPA as an "F".

WP: Student initiated withdrawal from a course after the drop deadline (60%) of the course; student has a passing grade at time of drop, as determined by the instructor. A "WP" does not affect GPA and can be initiated by the instructor if the student, because of extenuating circumstances, is unable to initiate the process (e.g., catastrophic illness or injury, job transfer to another state).

*** Not for Degree Credit**: Courses that have an asterisk following the course name, are computed in the GPA, but cannot be used to satisfy degree requirements.

NOTE: When a student repeats a course (either voluntarily or because it is required to make up a failure), only the latest grade is computed in the GPA/CGPA, but both grades will appear on the academic transcript followed by an (I) – include and/or an (E) – exclude from CGPA.

Course Failure

The student must make up a course for which a grade of "F" was received, either by retaking the course at Lakes Region Community College or by taking a comparable course at another institution. Courses transferred from other institutions count towards credits only; the "F" remains as part of the CGPA. Retaking a failed class will result in the "F" being replaced by the passing grade for the purpose of GPA calculation. The student should consult the advisor and department chairperson to determine if a course will transfer. Course failures cannot be made up by taking a credit by examination. See policy on credit by examination.

Appeal of a Grade

Any appeal of a grade must be initiated by the student with the instructor before an ensuing semester has elapsed. Students should be advised,ost often a grade may be only be changed by the instructor. Only in a case of obvious computational error or blatant abuse of the grading prerogative will the Vice President of Academic and Student Affairs (VPASA) be the other individual on campus empowered to change a grade student's grade.

Students who believe they have valid grounds for a grade appeal will use the following process to resolve the issue:

Meet with the Instructor
The student shall contact the faculty member and schedule a meeting to discuss the grade appeal and attempt to resolve the conflict. The faculty member and student shall meet within five business days of the end of the semester.

Meet with the Program Coordinator/Department Chair
If the issue was not resolved in meeting with the instructor, the student has three business days from the date of the faculty member's decision to file a written appeal with the faculty member's program coordinator or department chair, or with the Vice President of Academic and Student Affairs, if the faculty member is also the

department chair or program coordinator. Within three business days, the department chair or VPASA will mediate the dispute through discussion with the instructor or with the student in the faculty member's company. If no resolution is reached, proceed to the step below.

Meet with the Vice President of Academic and Student Affairs
If the issue is not resolved meeting with the Program Coordinator/Department Chair, the student has three business days to file a written appeal with the Vice President of Academic and Student Affairs. The VPASA will meet with all parties concerned within the next three business days to attempt to resolve the dispute. The VPASA will have three business days from the last meeting to decide on the grade appeal, which is final.

Note: During the summer, when faculty are not on campus, students may begin the grade appeal process with the Office of Academic and Student Affairs. Every attempt will be made to have the faculty member contact and meet with the student within the specified time. On occasion, however, these times may need to be adjusted.

Cumulative Grade Point Average

The cumulative grade point average (CGPA) reflects a student's academic standing through the most recent semester. To compute the cumulative grade point average, divide the total quality points earned in all semesters by the total credits attempted in all semesters. Calculation of cumulative grade point average (CGPA) will be based on all courses taken at the institution, including developmental or remedial courses.

Grade for a Repeated Course

All grades are entered on the grade report and academic record and are used in figuring semester and cumulative grade point averages.

Students may retake a course, whether to replace an "F" or to improve their prior grade. The grade achieved in the most recent course will be the grade used in calculating a student's cumulative grade point average (CGPA). The course grade and hours are included in the semester and the cumulative grade point average computation. The original grade and credit hours will not be figured in the cumulative grade point average (CGPA) but will appear on the student's academic record followed by an (E) exclude.

Third and subsequent attempts to repeat a course will require the approval of the Registrar's Office

Incomplete Grade

An incomplete grade "I" indicates that a student has not completed a major course assignment (usually a final exam or culminating final assessment) due to extraordinary circumstances, such as serious illness, death in the family, etc. The grade is applied only in those instances where the student has a reasonable chance of passing. *It is not used to give an extension of time for a student delinquent in meeting course responsibilities. An incomplete contract must be completed by the instructor, signed by the student and filed with the Registrar's Office prior to the end of the term.*

The work must be completed by the student through arrangement with the instructor no later than:

- the end of the third week in the spring semester for a grade issued in the fall semester;
- the end of the third week in the fall semester for a grade issued in the summer semester;
- three weeks from the earliest start date of the summer semester for a grade issued in the spring semester.

Should the student fail to complete the work within the designated period, the grade will automatically become an "F" grade. The Vice President of Academic and Student Affairs may make exceptions to the above deadlines.

Incomplete grades will not be included in the computation of grade point average (GPA) until a final grade is posted and/or the grade becomes an "F". An "I" grade may affect a student's financial aid and students should contact the Financial Aid office for further information.

Early Alerts

Early alerts are issued through Navigate for students with poor academic performance. The early alert process allows faculty, and the student support counselors to help students receive the academic or emotional support needed to be successful.

How to determine if you should report a student as an early alert,

- The student is missing three or more assignments.
- The student has missed one or more classes having rigorous lab time.
- The student has failed two or more assignments or exams.
- Other areas you feel will hinder the student's academic success

It is extremely important to report to students in a timely manner to allow time for the student to improve. LRCC has many academic and personal supports in place to assist students.

Satisfactory Academic Progress Standards

If you receive VA benefits, you must maintain satisfactory academic progress in your chosen program of study. We suggest you familiarize yourself with these requirements.

Veteran students will be ineligible for VA benefits for one term if they do not meet these standards. That means you will not receive your benefits for the term following such a determination. See 34 CFR §668.34.

Academic Standing

Each semester the Associate Vice President of Academic and Student Affairs reviews the academic performance of matriculated students whose cumulative grade point average (CGPA) is below 2.0. This review may result in a status of probation or suspension.

Academic Probation: Students will be placed on probation if they fall within one of the following categories:

0-13	Attempted Credits:	between .500 and 1.49 CGPA
14-27	Attempted Credits:	between 1.10 and 1.69 CGPA
28-40	Attempted Credits:	between 1.25 and 1.79 CGPA
41+	Attempted Credits:	between 1.50 and 1.99 CGPA

Students placed on academic probation will be limited to enrolling in twelve (12) credits and may not participate in any extracurricular activities.

Academic Suspension: Students will be placed on suspension from the college for one semester if their academic performance falls under one of the following categories:

0-13	Attempted Credits:	between 0.00 and .499 CGPA	
14-27	Attempted Credits:	between 0.00 and 1.09 CGPA	
28-40	Attempted Credits:	between 0.00 and 1.24 CGPA	
41+	Attempted Credits:	between 0.00 and 1.49 CGPA	

A student who does not meet satisfactory progress for academic probation for three consecutive semesters will be placed on academic suspension. Students placed on suspension must take one semester off f and must reapply for admission when choosing to return. When students are readmitted they will be placed on probation and will only be allowed to take up to twelve (12) credits, unless they choose to appeal.

Financial aid may be in jeopardy if a student fails to achieve satisfactory academic progress as defined above.

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Financial aid may be in jeopardy if a student fails to achieve satisfactory academic progress as defined above.

Appeal of Academic Standing Decisions

Students must submit an appeal clearly defining the basis for the appeal to the Vice President of Academic and Student Affairs within seven (7) business days following the letter is sent. The Vice President of Academic and Student Affairs will review the appeal and provide an email to the student of the outcome of the appeal.

Student appealing their academic decision are referred to the Student Support Counselors (SSC) to make an appointment.

The Support Counselors will:

- complete an appeal form and create an academic plan;
- send the request for an appeal to the Vice President of Academic and Student Affairs.

If the student is not satisfied with the results of the appeal, they have the option to appeal directly to the President of the College within five days of the outcome of the appeal. The appeal to the President must be in writing and must clearly define the basis for appealing the Vice President of Academic and Student Affairs decision.

Academic Amnesty

In order to be eligible for Academic Amnesty, a student must meet the following conditions:

- The student has not taken any courses at LRCC within an enrollment period of at least three years from the last semester of attendance.
- The student applies for Academic Amnesty at the time of admission.
- The student has never received Academic Amnesty
- The student achieved a cumulative grade point average (CGPA) below 1.7 during previous attendance.

All grades earned during a student's previous attendance at the College will no longer be used to calculate the student's new cumulative grade point average (CGPA). Grades of C- and above taken during that time will be used to meet course requirements, subject to the approval of the Vice President of Academic Affairs. Although grades will not be counted in the student's CGPA, all previous grades will remain on the student's transcript.

Academic Environment

The learning environment at LRCC encourages free discussion, inquiry and expression. Student performance is evaluated only based on performance in class or lab, not on the basis of their individual views. Students are responsible for learning the content of any course of study, participate actively in the class and have the right to take exception to the views presented in class.

Students shall maintain academic standards and are accountable for the honest and timely completion of assigned work, consistent participation in all class, shop, laboratory or clinical activities, and for conducting themselves appropriately. At the beginning of each semester the instructor shall provide students with a syllabus that contains a description of the course, its objectives, grading procedures, special academic requirements, prerequisites and specific class participation and attendance standards. The syllabus will include a schedule indicating (weekly if possible) when various course topics will be covered. Copies of syllabi are also available from the Academic and Student Affairs Office.

Students will supplement their syllabi and enhance their learning experiences using a Learning Management System (Canvas). Instructors may utilize Canvas to varying extents, but all are required to post the course syllabus, post their contact information, and utilize the gradebook feature presented in Canvas for each course. Students should develop the practice of regularly checking Canvas for course updates, as well as their college email for important information

Attendance

Class attendance is considered essential to academic success. Since there are constant learning opportunities between faculty members and students, and between students and other students within the learning environment, it is expected that students will attend each meeting of each course in which they are enrolled.

Specific attendance policies for each course are determined by the instructor and will be stated in writing in the course syllabus. These policies reflect the instructor's authority to determine under what terms students may be permitted to make up work missed through absence or tardiness.

Faculty report participation to the Registrar's Office after the last day to drop with a refund. Students who have not participated by that date will be dropped from the course and will not be financially responsible for the cost of the course. Students attending online classes are considered attending when they have submitted at least one assignment.

Registration

Students enrolled in a degree or certificate program must have advisor approval before registering for courses and should register using Navigate or the Student Information System (SIS).

Non-matriculated students may register for courses if pre-requisites are met, or the student receives instructor approval and should register for the first time using the electronic registration form.

Students should understand that by registering for courses at Lakes Region Community College, they are financially obligated for all costs related to the registered course(s). Upon a drop or withdrawal after the refund period, it is understood the student will be responsible for all charges as noted in the student catalog and handbook. If they do not make payment in full, it is understood their account may be reported to the credit bureau and/or turned over to an outside collection agency. It is also understood they will be responsible for the costs of the outside collection agency and/or any legal fees and bounced check fees under RSA 6:11 which may add a significant cost to their existing account balance.

Adding a Course

Students may add courses to their schedule up to and including the seventh (7th) calendar day of the semester, providing there is space in the class. A course may be added after the seventh (7th) calendar day of the semester only with the permission of the instructor.

Dropping a Course

The student should discuss the decision to drop a course(s) with his/her advisor. Course(s) must be dropped online via the Student Information System (SIS) or Navigate.

Students who formally drop a course in a timely manner will have information entered on their academic record as follows:

- Grades are not recorded for students who drop a course(s) during the refund period.
- A grade of "W" is awarded to students who drop a course(s) during the first 60% of the semester (after the refund period). This may, however, result in a change in student status for financial aid, veteran's benefits, insurance discounts, etc.

Students who fail to officially drop a course for which they are not attending will receive an administrative failure for such courses on their transcripts.

Audit Policy

Under the Audit Policy, students may enroll in courses which provide an opportunity to assess their ability to do college work, explore a discipline of interest, refresh prior learning, or supplement existing knowledge. Typically, a student attends lectures, seminars and/or labs but does not complete graded assignments (unless agreed upon with the instructor). When enrolled as an audit, the student will not be given a final grade, nor will credit towards graduation be given for the course (the academic transcript will reflect an AU for the course). **The student must pay the full tuition for the course. Financial Aid does not cover the costs for an audited course.**

Not all courses can be taken for audit, and entry as an auditing student is by the instructor's permission. A student must complete a registration form as an audit during the first week of classes. Once admitted as an

audit, the student may not change to credit status after the designated add period; likewise, a student registered for credit may not change to audit status after the designated add period. The Vice President of Academic and Student Affairs may make exceptions to this policy.

Pre-requisite

Students must successfully complete a pre-requisite course before enrolling in the next course. The course description section of the college catalog notes prerequisites. A failing grade in a pre-requisite will prevent a student from taking the next course. Students may use courses from other colleges to meet pre-requisites.

Co-requisite

Some courses have a co-requisite course requirement, which means the course must be taken simultaneously with another course. A co-requisite may be satisfied if taken in a prior semester. Students should review all co-requisite requirements with their advisor.

Withdrawing from the College

Any student who finds it necessary to withdraw from the College should first notify their faculty advisor and then complete the College Withdrawal Form. Failure to officially withdraw or return College property may result in financial holds, course failures and academic suspension. The student is financially responsible for all tuition and fees if the drop date has passed for any enrolled courses. Any official withdrawal from the College after the last date to withdraw from a full semester course (60%) has passed shall be considered effective the first day of the following semester for academic reasons, and the student will be held academically accountable for the entire semester. If Withdraw Pass/Fails Forms aren't submitted for each course, a final grade will be issued as though the student had completed the entire semester. A note will be added to the student's transcript indicating College withdrawal. Students who have officially withdrawn from the College may apply for readmission.

Student Status

A ***matriculated*** student is a student admitted to a program (degree or certificate) at the College. Matriculated students are entitled to participate in the Title IV Federal Financial Aid Program and have priority when registering for classes with limited enrollment. In order to remain matriculated, a student must enroll and attend at least one course during the academic year (not to exceed a 12-month period). A student who does not register for at least one course per academic year will lose matriculated status. A student who chooses to re-matriculate must reapply for admission to a program and if applying to a different program, may have to satisfy different program requirements.

A ***non-matriculated*** student is a student not admitted to a program and may register on a first-come, first-served basis for any course, providing the student has met pre-requisites and there is space available. Non-matriculated students should matriculate before the completion of nine (9) semester hours and begin pursuing graduation requirements. An advisor will help students make these decisions.

Medical Leave Policy

A matriculated student who, due to a serious medical condition that requires extended inpatient treatment in a medical facility and/or ongoing outpatient medical treatment, becomes unable to complete his/her academic requirements and/or who becomes unable to meet the program's technical standards and/or the requirements of the Student Code of Conduct, may apply for a formal Medical Leave of Absence for up to two consecutive semesters.

Students considering a Medical Leave of Absence should be aware that granting of such leave does not relieve a student from financial responsibility to the college. A student who is seeking a Medical Leave of Absence who is also a financial aid recipient should contact the Financial Aid Office to discuss the leave and any potential implications for changes in financial aid eligibility.

Students requesting Medical Leave of Absence must:

1. Provide a letter to the Vice President of Academic and Student Affairs identifying their program of study, the medical reason for the request, the proposed date on which the leave would begin, and the proposed date of readmission, and;
2. Provide the Vice President of Academic and Student Affairs documentation of the medical condition from a licensed health care professional directly involved in the treatment of the student's particular condition that is sufficiently comprehensive to facilitate the decision-making process.

The Vice President of Academic and Student Affairs (or designee) will make a determination regarding the appropriateness of the leave request and notify the student in writing whether the request for Medical Leave of Absence was granted and what conditions for readmission may apply. Students whose requests are granted will not be required to reapply for admission at the end of the leave period provided all conditions for readmission have been met.

Conditions for readmission may include, but are not limited to, submission of documentation from a licensed heath care professional directly involved in the treatment of the student's particular condition that is sufficiently comprehensive to provide reasonable assurance that the returning student will be able to meet all college and program academic, technical, and behavioral requirements. Other conditions for readmission may include a required in-person meeting with the Vice President of Academic and Student Affairs and/or the student's program Department Chair; compliance with any new admission criteria implemented in the student's absence; following a new curriculum plan that may have been implemented in the student's absence; and/or repeating courses and/or clinical experiences to ensure clinical competence following an extended absence. (Please note that students wishing to return to a residence hall may be required to meet additional, separate criteria from those required for return to an academic program. Students should directly negotiate any return to residence life with the college's Student Affairs Office.)

Students who choose to seek Medical Leave under the provisions of this policy should be aware that information they voluntarily disclose during the application and readmission processes will be handled under the confidentiality guidelines of the Family Educational Rights and Privacy Act (FERPA) and disclosed only to those persons with a direct academic need to know.

Enrollment Status

Enrollment Status refers to the number of credits a student takes during a semester and determines financial aid awards. Credits awarded for transfer, work experience, audits and challenge exams do not count toward determination of full-time status. It is important to know; full-time status is the equivalent of 12 or more credit hours.

Full-time: Twelve (12) or more credits, or registered for ASEP or Toyota T-Ten Cooperative Education
Three-quarter time: Nine (9) – Eleven (11) credits
Half time: Six (6) – Eight (8) credits
Less than half time: One (1) – Five (5) credits

A student must register for twelve (12) or more credit hours to qualify for *full-time status* for financial aid, veteran's benefits, etc.

Disclosure of Directory Information

Lakes Region Community College defines "directory information" as name, address, e-mail address (CCSNH email only), telephone number, major field of study, dates of attendance, enrollment status, degrees, honors, awards and most recent educational institution attended.

Students may refuse designation of personally identifiable information as directory information provided the Registrar receives a written request.

Privacy of Records

LRCC does not provide access to, or release of, any personally identifiable records or files to any individual, agency or organization without prior written consent of the student except as follows. The President, Vice President, Associate Vice President and Registrar shall have unlimited access, without permission, to all student records. They may release information without prior written authorization of the student in the following circumstances:

- To officials and teachers within the College who are directly involved in a legitimate, educational matter with the student.
- To authorize Federal and State offices as identified in Section 438(b) (3) of Public Law 93-380.
- To appropriate persons in connection with an emergency if the knowledge of such information is necessary to protect the health or safety of any person. Students requesting their parent(s) to have information about any aspects of their progress at the college, must sign a Release of Student Information form, which can be obtained from the Registrar's Office.

Family Educational Rights Privacy Act of 1974

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

These rights include:

- The right to inspect and view the student's education records within 45 days of the day the college receives a request for access. Students should submit written requests that identify the record(s) they wish to inspect to the Registrar, Vice President of Student Affairs or the appropriate official. The college official will arrange for access and notify the student of the time and place where the records may be. If the college official does not maintain the records requested, the official should advise the student of correct official.
- The right to request the amendment of the student's education records that the student believes are incorrect or misleading. Students may ask the college to amend a record that they believe is incorrect or misleading. They should write the college official responsible for the record, clearly identify the part of the record they want changed and specify why it is incorrect or misleading. If the college decides not to amend the record as requested by the student, the college will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedure will be provided to the student when notified of the right to a hearing.
- 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 is a person employed by the college in an administrative, supervisory, academic, research or support staff position (including law enforcement personnel and health staff). A school official also refers to 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 student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her task. A school official has a legitimate educational interest if the official needs to view an education record to fulfill his or her professional responsibility.
- The right to file a complaint with the U.S. Department of Education concerning alleged failure by the college to comply with requirements of FERPA. Students may request release of college records by completing the Authorization for Release of Records form prior to releasing the documents.

Social Security Number

Federal law requires that Lakes Region Community College collect names and corresponding social security numbers for all students attending the College. The College is required by the Internal Revenue Code to produce a 1098-T tax form (Federal Register, Vol. 67, No. 2244, page 777686 (ii)) which requires the College to

report the names and social security numbers of all students taking credit-bearing courses. **Please note, the College will ensure the security of the student's social security number and will not disclose it to anyone outside the College, except as mandated by federal or state laws.**

Cooperative Education

Cooperative education is an educational experience that combines classroom studies with paid, productive work experience at a site in a field related to the student's major.

Each college department sets standards for eligibility to participate in a cooperative education, approve cooperative education sites and determine cooperative education requirements (papers, journals, etc.). Grading cooperative education courses follows the College's grading system. Cooperative education is required for the GM ASEP, Toyota/Lexus (T-TEN), Culinary Arts, Hotel and Restaurant Operations and Pastry Arts programs. Faculty monitors each placement to ensure that it meets academic requirements and that the work experience is relevant to the student's area of study. Approval of the Department Chair and Vice President of Academic and Student Affairs is required for all other programs.

While LRCC makes every effort to place each eligible student, ***there is no guarantee*** placement will occur. Students should see their academic advisor for specific details about their placement. The College charges tuition and fees for cooperative education experiences on a per-credit basis.

The student's cooperative education academic advisor assists students in preparation for cooperative education, usually two to four weeks prior to the session.

LRCC retains its right to remove a student from a position if the situation warrants doing so. Obviously, as with most work situations, the employer can terminate the relationship resulting in loss of credit, if the employer has just cause and has documented the situation. Each department's criteria pertaining to cooperative education may differ. The student should consult with his/her advisor for additional information.

Credit Options for Advanced Standing

Credit options are opportunities for adult learners to earn credit toward a degree through alternatives other than coursework. Credit options include transfer credit, CLEP examinations, credit by examination, advanced credit, DANTES and experiential learning.

LRCC encourages students to apply the wealth of knowledge and experience they possess to take advantage of all the credit options available to them. It is possible for students to earn significant credit based on previous educational and professional experiences. The only restriction is students seeking a degree or certificate at the College must complete residency requirements. (See residence credit for specific requirements.)

Please note, credit earned through any of these options counts toward degree or certificate requirements but is not included in computing grade point averages. Upon matriculation, student request for recognition of technical courses more than seven years old is subject to review. Course content may be outdated and therefore not acceptable for transfer or other credit. Courses three years older or longer in Computer Information Systems will need to be re-taken.

Transfer Credit

Students may transfer credits from other accredited colleges, including the colleges within the Community College System of New Hampshire provided they earned a grade of "C" or better, and those credits are equivalent to the courses in their program. An official transcript from other colleges is required to start the transfer process

The Admissions Office, the Registrar's Office and along with Department Chairs, coordinate the transfer credit process. Students should consider, transfer credits might lessen their financial aid eligibility by reducing the

course load from full-time to part-time status. Students using Veterans benefits must transfer credit into LRCC if the credit meets graduation requirements. Lakes Region Community College does not use grades received in courses taken at any other institution in computing semester or cumulative grade point averages.

Credit by Examination

Credit by examination provides matriculated students with the opportunity to challenge technical and other courses for which they feel qualified and are prepared and proctored by college faculty. If students obtain a grade of "C" or better, the credits earned count toward their degree and the academic record will reflect a grade of "CR". The academic officer and the instructor coordinate the credit by examination process. It is required that the exam be taken and graded within the first seven days of the semester. The student and the Registrar receive notification of the course exam results.

Students who apply for credit by examination must be matriculated and may apply for credit by examination only for those courses for which they are not currently registered. The fee for credit by examination is $25 per credit, plus all direct costs associated with providing the laboratory exam. Students cannot use credit by examination to make up a previously failed course. If a student earns credit by examination, the enrollment status could change, an action which could affect financial aid status.

DANTES (Defense Activity for Non-Traditional Education Support)

The DANTES College Credit Examination program provides National Guard members and servicemen and women with three different exam programs to earn college credit. The exams are CLEP, ACT/PEP and the DANTES Subject Standardized Tests (DSSTS). To apply, students must arrange to have credits earned through DANTES sent to the college Registrar.

Continuing Education Credits

In students' working or professional lives, they may have taken work-related courses that have provided them with certificates or Continuing Education Units (CEUs). Students may earn credit(s) toward their degree through these efforts.

To apply, students need to assemble all certificates and CEUs into a package. Students must develop a narrative statement (for each certificate or CEU) that outlines the purpose of the course or workshop, the sponsor and instructor of the activity, and the total number of hours for each activity. In addition, students must arrange for their employer to send a letter to the Vice President of Academic and Student Affairs, confirming their narrative statements and highlighting the competencies gained through participation in the activities.

Experiential Learning

Credit for prior learning offers students the opportunity to demonstrate the knowledge they have gained through life experiences and apply this knowledge towards credit in a degree or certificate program. To prepare for this option, students will develop a portfolio to be assessed by appropriate college personnel. A student must be matriculated at one of the CCSNH colleges to be eligible to apply for experiential credit. Not all programs provide the experiential credit option; students should consult with their respective colleges for eligible programs and the process used for application.
Students may be awarded a maximum of 24 credits for experiential learning. Students will be assessed a fee based on 50% of the current tuition rate on the total credits awarded (e.g., for 12 credits awarded: 0.50 x current tuition rate x 12 credits).

Running Start

High school students have an opportunity to earn college credit through the Running Start program. This unique partnership between LRCC and local area high schools offers the high school student selected college-level coursework and college credit for successful completion of coursework. Running Start courses are taught at the high school by high school faculty members during the regular school day.

The cost of a three-credit course is $150 per course, plus books and supplies. This represents a significant savings associated with college tuition. Local high schools and students interested in a Running Start course may call the Running Start Coordinator for more information.

Early College

Early College Online and On-Campus are dual enrollment programs where high school students take college courses for both college and high school credit. Early College On-Campus students are charged half of tuition and no fees, Early College Online students are charges $150 per course. Students are responsible to pay for books and supplies. The earned college credits not only satisfy your high school requirements for graduation but may be applied directly towards a degree at Lakes Region Community College (LRCC) they may transfer to another college or university.

High School and College Articulations

Some high schools and four-year institutions have developed written agreements with the College to ensure guaranteed acceptance for qualified students. These agreements specify the competencies needed for acceptance, and they show the student how to meet them. They also spell out how a student can earn college credit while in high school or transferring to a four-year institution with junior status. Speak with your advisor for a list of articulation agreements in your program.

Academic Calendars

Fall 2024	
Friday, August 9	180 Day Staff Return for Fall Semester
Tuesday, August 13	10 Month and 11 Month Faculty Return for Fall Semester
Monday, August 26	Fall Semester Classes Begin
Monday, September 2	Labor Day–No Classes, Campus Closed
Friday, September 13	Last Day to Resolve Incomplete Grades from Summer 2024
Monday, November 11	Veterans' Day–No Classes, Campus Closed
Monday, November 18	Fee Assessment Begins for 2025 Spring Semester
Monday, November 25	Spring 2025 Course Shells Begin Uploading to Canvas
November 28-30	Thanksgiving Break – No Classes, Campus Closed
Saturday, December 14	Last Day of Classes for Fall Semester
Monday, December 16	Grades Due by 4:00pm Last Day of Faculty Responsibility for 10 Month & 11 Month Faculty for Fall Semester
Wednesday, December 18	Last Day of Responsibility for 180 Day Staff for Fall Semester
Tuesday, December 24	Chancellor Holiday/Winter Recess – No Classes, Campus Closed
Wednesday, December 25	Christmas Day– No Classes, Campus Closed
December 26 –31	Winter Recess–No Classes, Campus Closed

Fall 2024 Parts of Term and Important Dates and Deadlines	P/T	Begin Date	End Date	Payment Due Dates	Last Date to Drop with Refund	Last Date to Withdraw	Last Day to Register Online
Day, Evening and Online Classes (16 weeks)	21	8/26/24	12/14/24	8/12/24	9/9/24	10/31/24	8/30/24
LRCC Six Week Term I	2FH	8/26/24	10/4/24	8/12/24	9/3/24	9/20/24	8/30/24
LRCC Six Week Term II	2SH	10/21/24	11/29/24	10/7/24	10/28/24	11/15/24	10/25/24
LRCC Eight Week Term I	2T1	8/26/24	10/18/24	8/12/24	9/3/24	9/26/24	8/30/24
LRCC Eight Week Term II	2T2	10/21/24	12/14/24	10/7/24	10/28/24	11/22/24	10/25/24
LRCC Twelve Week Term	2LS	9/23/24	12/14/24	9/9/24	9/30/24	11/13/24	9/27/24
LRCC Coop Term I (12 weeks)	2C1	8/26/24	11/15/24	8/12/24	9/3/24	10/14/24	8/30/24
LRCC Toyota/Lexus Term I (4 weeks)	2L1	8/26/24	9/20/24	8/12/24	9/3/24	9/10/24	8/30/24
LRCC Toyota/Lexus Term II (4 weeks)	2L2	9/23/24	10/18/24	9/9/24	9/30/24	10/8/24	9/27/24
LRCC Toyota/Lexus Term III (4 weeks)	2L3	10/21/24	11/15/24	10/7/24	10/28/24	11/5/24	10/25/24
LRCC GM Term I (6 weeks)	2G1	8/26/24	10/4/24	8/12/24	9/3/24	9/18/24	8/30/24
LRCC GM Term II (6 weeks)	2G2	10/7/24	11/15/24	9/23/24	10/14/24	10/30/24	10/11/24
LRCC LNA	2V3	8/26/24	10/29/24	8/12/24	9/3/24	10/3/24	8/30/24
Workshops	2W	8/26/24	12/31/24	14 days prior to start	3 business days prior start	N/A	N/A
Winter 2024-2025 Parts of Term and Important Dates and Deadlines	**P/T**	**Begin Date**	**End Date**	**Payment Due Dates**	**Last Date to Drop with Refund**	**Last Date to Withdraw**	**Last Date to Register Online**
LRCC Coop Term I (12 weeks)	2C1	11/18/24	02/21/25	11/4/24	11/25/24	1/14/25	11/22/24
LRCC Toyota/Lexus Term I (4 weeks)	2L1	11/18/24	12/13/24	11/4/24	11/25/24	12/5/24	11/22/24
LRCC Toyota/Lexus Term II (4 weeks)	2L2	01/02/25	01/24/25	12/19/24	1/8/25	1/15/25	1/6/25
LRCC Toyota/Lexus Term III (4 weeks)	2L3	01/27/25	02/21/25	1/10/25	2/3/25	2/11/25	1/31/25

Spring 2025	
Wednesday, January 1	New Year's Day –No Classes, Campus Closed
Monday, January 6	180 Day Staff Return for Spring Semester
Thursday, January 9	10 Month and 11 Month Faculty Return for Spring Semester
Thursday, January 16	CCSNH Winter Convening

Spring 2025	
Monday, January 20	Martin Luther King Jr./Civil Rights Day–No Classes, Campus Closed
Tuesday, January 21	Spring Semester Classes Begin
Friday, February 7	Last Day to Resolve Incomplete Grades from Fall 2024
Monday, February 17	Presidents' Day–No Classes Campus Closed
March 17-22	Spring Break – No Classes, Campus Open
Monday, March 24	Fee Assessment Begins for 2025 Summer and Fall Semesters
Monday, March 31	Summer 2025 Course Shells Begin Being Uploaded to Canvas
Saturday, May 10	Last Day of Classes for Spring Semester
Monday, May 12	Grades Due By 4:00pm
Saturday, May 17	Commencement 11:00am
Wednesday, May 14	CCSNH Symposium
Monday, May 19	Last Day of Responsibility for 10 Month Faculty for Spring Semester (except for commencement/commencement activities, as determined by assigned duties)
Monday, May 20	Last Day of Responsibility for 180 Day Staff for Spring Semester (except for commencement/commencement activities, as determined by assigned duties)
Monday, May 26	Memorial Day-No Classes, Campus Closed

Spring 2025 Parts of Term and Important Dates	**P/T**	**Begin Date**	**End Date**	**Payment Due Dates**	**Last Date to Drop with Refund**	**Last Date to Withdraw**	**Last Day to Register Online**
Day, Evening and Online Classes (15 weeks)	21	1/21/25	5/10/25	1/7/25	2/3/25	3/31/25	1/27/25
LRCC Six Week Term I	2FH	1/21/25	2/28/25	1/7/25	1/28/25	2/12/25	1/27/25
LRCC Six Week Term II	2SH	3/24/25	5/2/25	3/10/25	3/31/25	4/16/25	3/28/25
LRCC Eight Week Term I	2T1	1/21/25	3/14/25	1/7/25	1/28/25	2/21/25	1/27/25
LRCC Seven Week Term II	2T2	3/24/25	5/10/25	3/10/25	3/31/25	4/14/25	3/28/25
LRCC Twelve Week Term	2LS	2/18/25	5/10/25	2/24/25	2/18/25	3/28/25	2/22/25
LRCC Coop Term I	2C1	2/24/25	5/16/25	2/10/25	3/3/25	4/14/25	2/28/25
LRCC Toyota/Lexus Term I (4 weeks)	2L1	2/24/25	3/21/25	2/10/25	3/3/25	3/11/25	2/28/25
LRCC Toyota/Lexus Term II (4 weeks)	2L2	3/24/25	4/18/25	3/10/25	3/31/25	4/8/25	3/28/25
LRCC Toyota/Lexus Term III (4 weeks)	2L3	4/21/25	5/16/25	4/7/25	4/28/25	5/6/25	4/25/25
LRCC GM Term I (6 weeks)	2G1	2/24/25	4/4/25	2/10/25	3/3/25	3/19/25	2/28/25
LRCC GM Term II (6 weeks)	2G2	4/7/25	5/16/25	3/24/25	4/14/25	4/30/25	4/11/25
LRCC Nine Week Term	2V2	2/24/25	4/25/25	2/10/25	3/3/25	4/7/25	2/28/25

Spring 2025 Parts of Term and Important Dates	P/T	Begin Date	End Date	Payment Due Dates	Last Date to Drop with Refund	Last Date to Withdraw	Last Day to Register Online
LRCC LNA	2V3	1/21/25	3/21/25	1/7/25	1/28/25	2/25/25	1/25/25
Workshops	2W	1/2/25	5/23/25	14 days prior to start	3 business days prior to start date	N/A	N/A

Notice of Non-Discrimination

Lakes Region Community College does not discriminate in the administration of its admissions and educational programs, activities, or employment practices on the basis of race, color, religion, national origin, age, sex, disability, gender identity and expression, genetic information, veteran status, sexual orientation, or marital status. This statement is a reflection of the mission of the Community College System of New Hampshire and LRCC and refers to, but is not limited to, the provisions of the following laws:

1. Titles VI and VII of the Civil Rights Act of 1964
2. The Age Discrimination Act of 1967
3. Title IX of the Education Amendment of 1972
4. Section 504 of the Rehabilitation Act of 1973
5. The Americans with Disabilities Act of 1990 (ADA)
6. Section 402 of the Vietnam Era Veteran's Readjustment Assistance Act of 1974
7. NH Law Against Discrimination (RSA 354-A)
8. NH Law RSA 188-F:3-a
9. Genetic Information Nondiscrimination Act of 2008

LRCC degree, certificate, and career training programs are designed to meet the educational and workforce needs of the Lakes Region. Career and Technical Education (CTE) opportunities will be offered regardless of race, color, religion, national or ethnic origin, age, sex, sexual orientation, marital status, disability, gender identity or expression, genetic information, or veteran status. LRCC reduces barriers to future career and educational opportunities for area residents by helping them upskill with general academic and technical education, as well as customized business and industry training. View the CTE program details at LRCC.edu.

Entry to a specific degree, certificate, or workforce development program varies depending on the program and credentialing requirements through designated accrediting bodies. LRCC degree and certificate programs require students to complete the application and acceptance process through the Admissions Office. All of the LRCC degree programs require that students complete a math class. To ensure that students are placed in the correct math class, students are required to take a math placement exam. Please review specific program details and requirements at lrcc.edu/programs/.

The individuals designated to coordinate compliance with Section 504 of the Rehabilitation Act of 1973, The Americans with Disabilities Act of 1975, and Title IX of the Education Amendments of 1972 are identified below. The LRCC DEIB Committee is designated to coordinate compliance with the Non-Discrimination Policy and handles all concerns of discrimination not covered under Title IX. The following persons have been designated to handle inquiries regarding the Non-Discrimination Policy:

Inquiries regarding discrimination may be directed to:

Adriana Komst

Business Affairs Officer and Title IX Coordinator
Lakes Region Community College
379 Belmont Road
Laconia NH, 03246
akomst@ccsnh.edu
603-366-5206

Nancy Blais

Accessibilities Coordinator
Lakes Region Community College
379 Belmont Rd.
Laconia, NH 03246
nblais@ccsnh.edu
603-366-5243

Inquiries may also be directed to:

US Department of Education, Office of Civil Rights *(Boston Office)*

U.S. Department of Education
8th Floor
5 Post Office Square
Boston, MA 02109-3921
Phone: (617) 289-0111
Fax: (617) 289-0150
Email: OCR.Boston@ed.gov

NH Commission for Human Rights

2 Industrial Park Drive, Bldg. One
Concord, NH 03301
Phone: (603) 271-2767
Fax: (603) 271-6339
Email: *humanrights@hrc.nh.gov*

The Equal Employment Opportunity Commission

John F. Kennedy Federal Building
15 New Sudbury Street, Room 475
Boston, MA 02203-0506
Phone: (800) 669-4000
Fax: (617) 565-3196
TTY: 1-800-669-6820
ASL Video Phone: 1-844-234-5122

For automatic connection to the nearest EEOC field office:
Phone: (202) 921-3191
TTY: 1-800-669-6820
ASL Video Phone: 1-844-234-5122

Affirmative Action

The College President serves as the Affirmative Action representative for the College. For issues related to Affirmative Action, you may reach the President at Lakes Region Community College, (603) 524-3207.

Disclaimer

Lakes Region Community College has made every effort to assure the accuracy of the information in this catalog. Students and others who use this catalog should note that policies, rules, procedures and regulations change and that these changes may alter the information in this publication. The College reserves the right to change without notice any academic or other requirements, course offerings and course contents contained in this catalog. The catalog does not constitute a contract or terms of a contract between Lakes Region Community College and the student.

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Degrees & Certificates

Accounting

Accounting

Degree Type
Associate in Science

An associate degree in accounting is your gateway to an exciting professional occupation. With an associate degree, you can graduate with career-ready accounting skills, including basic accounting, cost accounting, taxation, computerized accounting, and managerial accounting. Our students have the option of graduating and going directly into the workforce in this high-demand industry or pursuing a bachelor's degree at a four-year institution.

Students completing the Accounting degree program will have the skills and knowledge necessary to gain entry into careers such as accounts receivable clerk, accounting assistant, billing clerk, bookkeeper, management trainee, and payroll clerk. In addition to an accounting core, students will develop strong business skills by studying various business concepts, including management, economics and business law.

For students interested in continuing with their college education, transfer agreements with four-year institutions may be available. Call or email the department chair for details.

Students who complete the program will:

- Have a practical working knowledge of financial and managerial accounting.
- Demonstrate the ability to operate at least one accounting software program
- Demonstrate the ability to use and analyze modern information technology, including spreadsheets and basic
- database.
- Demonstrate the ability to be able to prepare a complex individual tax return.
- Be able to prepare accurate and well-organized financial statement.
- Be able to make the adjustments needed to create financial statements in accordance with generally accepted accounting principles;
- Demonstrate proficiency in analytical thinking, oral and written communication and applied mathematical skills;
- Articulate the necessity for continued education through a bachelor degree and national licensing such as the CPA or CMA;
- Apply reading, thinking, writing, and oral communication skills to convey ideas, information, and intentions effectively and in a manner that is appropriate to a professional organization or business.
- Apply appropriate analytical tools and critical thinking to identify core issues, evaluate alternatives, and make informed decisions to solve problems in complex business situations.
- Recognize ethical issues, apply ethical frameworks to analyze them, differentiate between ethical and unethical behavior and integrate ethical understanding and societal responsibility into decision-making.
- Professional competence of business subject matter knowledge of in the core business areas of accounting, management, economics, and law.

First Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ACCT131L	Accounting I	3	0	3
BUS130L	Introduction to Business	3	0	3
ENGL100L	English Composition	4	0	4
CIS133L	Introduction to Information Technology	2	2	3
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**13**	**2**	**14**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ACCT132L	Accounting II	3	0	3
ENGL124L	Business Communications	3	0	3
	SOSC231L or SOSC232L	3	0	3
	Business Elective	3	0	3
	Mathematics Elective (4 credit)	4	0	4
	Sub-Total Credits	**16**	**0**	**16**

Second Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ACCT251L	Federal Taxes	3	0	3
ACCT235L	Managerial Accounting	3	0	3
BUS231L	Principles of Management	3	0	3
BUS238L	Business Law I	3	0	3
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Sub-Total Credits	**15**	**0**	**15**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ACCT231L	Cost Accounting	3	0	3
ACCT273L	Introduction to Computerized Accounting	2	2	3
CIS235L	Spreadsheets	2	2	3
	Science Elective (3 credits)	3	0	3
	Social Science Elective	3	0	3
	Sub-Total Credits	**13**	**4**	**15**

Accounting students may take any business class to satisfy their business elective so long as it is not required of their program.

	Total Credits	**60**

Accounting

Degree Type

Certificate

Certificate Requirements

Item #	Title	Class Hours	Lab Hours	Credits
ACCT131L	Accounting I	3	0	3
ACCT132L	Accounting II	3	0	3
ACCT231L	Cost Accounting	3	0	3
ACCT235L	Managerial Accounting	3	0	3
ACCT251L	Federal Taxes	3	0	3
ACCT273L	Introduction to Computerized Accounting	2	2	3
CIS235L	Spreadsheets	2	2	3
CIS133L	Introduction to Information Technology	2	2	3
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**22**	**6**	**25**
	Total Credits			**25**

Advanced Manufacturing

Advanced Manufacturing

Degree Type
Associate in Science

(Currently in a Teach-Out Phase, Not Accepting New Applications)

The Advanced Manufacturing Degree at Lakes Region Community College consists of 11 major core courses 5 of which are the core courses of our Advanced Manufacturing Certificate program. Successful students should have the necessary skills to enter the manufacturing workforce, or excel in current manufacturing employment, into positions a step higher than entry level. Students will have an understanding of manufacturing operations and processes. In addition, students will have acquired skills for decision making in the manufacturing environment using quantitative and qualitative data. Students will have knowledge in materials, processes, quality control, machine operations, machine set-up and tool section, employee empowerment skills, critical thinking skills, oral and technical communication skills, and operation management skills.

Students who complete the program will:

- Demonstrate athematic skills necessary to solve manufacturing problems through the understanding of fractions and decimals, algebra, geometry, trigonometry, linear equations, roots, geometric figures, usage of tolerances, interpretation and usage of formulas and proportions, and practical applications of geometry and trigonometry.
- Read and interpret blueprints and engineering drawings.
- Understand machine tools and machine tool operations such as milling, turning, drilling, cutting, grinding, and chamfering.
- Demonstrate advanced CNC machine operations skills including offsets, work offsets, G-code programming, machine zeroing, and circular interpolation, set-up, tool selection, material selection, and operator maintenance.
- Demonstrate computer Aided Manufacturing (CAM) and CAM-Mill skills in processes such as contouring, cycle time estimating, tool selection, material specification, cutter compensation, parameter changes, contour applications, roughing, finishing, and tool paths.
- Demonstrate operational Management skills in strategic decision-making using tools such as forecasting, basic inventory models, aggregate planning, master scheduling, materials requirements, and scheduling of operations.
- Understand procurement, inventory movement, storage of materials, and production flows.

- Understand lean manufacturing principles such as line balancing, standard work, waste elimination, 5-S programs, employee empowerment, quality, lean production flow and inventory control, as well as facilitation techniques.

First Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL100L	English Composition	4	0	4
MANF142L	Machine Processes	2	3	3
MANF131L	Blueprint Reading	3	0	3
MANF145L	Manufacturing Processes	3	0	3
INDL100L	College Essentials	1	0	1
	Social Science Elective	3	0	3
	Sub-Total Credits	**16**	**3**	**17**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
MANF132L	Solid Modeling	2	3	3
MANF151L	CNC Machines I	2	0	2
MANF152L	CNC Machines I Lab	0	6	2
MATH137L	Technical Algebra & Geometry	4	0	4
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Sub-Total Credits	**11**	**9**	**14**

Second Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
MANF211L	CNC Machines II	1	0	1
MANF212L	CNC Machines II Lab	0	6	2
MANF230L	CAD/CAM	2	3	3
MANF240L	Lean Manufacturing	3	0	3
PHYS125L	Technical Physics	2	2	3
	Liberal Arts Elective	3	0	3
	Sub-Total Credits	**11**	**11**	**15**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
MANF250L	Advanced CNC Machine Processes	2	6	4
BUS232L	Operations Management	3	0	3
MANF220L	Properties of Materials	3	2	4
	MANF270L or MANF280L			3
	Sub-Total Credits	**8**	**8**	**14**
	Total Credits			**60**

Advanced Manufacturing

Degree Type

Certificate

Certificate Requirements

Item #	Title	Class Hours	Lab Hours	Credits
INDL100L	College Essentials	1	0	1
MANF120L	Machine Tool Math	3	0	3
MANF131L	Blueprint Reading	3	0	3
MANF142L	Machine Processes	2	3	3
MANF151L	CNC Machines I	2	0	2
MANF152L	CNC Machines I Lab	0	6	2
MANF211L	CNC Machines II	1	0	1
MANF212L	CNC Machines II Lab	0	6	2
	Sub-Total Credits	**12**	**15**	**17**
	Total Credits			**17**

Arts

Art: Education Track

Degree Type
Associate in Arts

An associate degree in Art at LRCC offers a choice of two concentrations: Art Education and Studio Art. They share a core of 4 classes in studio foundations and history. Both tracks offer a strong arts foundation for entry into the field and several options for transferring to 4-year programs.

The Art Education track provides students with a survey of studio art courses and art education courses. Students will spend time in elementary, middle or high school art classrooms, observing and interacting with students and teachers. Upon completion of the degree students will be prepared to teach art in a private setting or to transfer to a 4-year institution to complete their Bachelors in Art Education and earn their teaching certificate.

Students who complete the program will:

- translate the 3D world onto a 2D surface through drawing, painting, or digital media,
- utilize the elements of composition, 2D design, 3D design and color theory,
- realize and create a cohesive body of work, photograph and organize this work into an online portfolio and layout and hang this work in a professional manner,
- understand and discuss current trends in the art world,
- communicate effectively both orally and in writing as well as through artistic communications,
- explore diverse ideas and emotions, as expressed through art history, to evaluate the effect of historical trends, events, institutions, and social systems as applied to the arts,
- perform mathematical operations basic to functioning in present and future disciplines or occupations and to prepare for further education,
- demonstrate scientific thought both quantitatively and qualitatively by learning to recognize and formulate questions for analysis of human and technical problems.

First Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ARTS111L	Introduction to Drawing	2	3	3
ARTS150L	Introduction to Art Education	3	0	3
ARTS120L	2-D Design	2	3	3
ENGL100L	English Composition	4	0	4
INDL100L	College Essentials	1	0	1
	Social Science Elective	3	0	3
	Sub-Total Credits	**15**	**6**	**17**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ARTS125L	3-D Design	2	3	3
ARTS136L	Art History: Renaissance to Modernism	3	0	3
	English Elective	3	0	3
	Mathematics Elective (3 credits)	3	0	3
	Social Science Elective	3	0	3
	Sub-Total Credits	**14**	**3**	**15**

Second Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ARTS131L	Art History: Prehistoric to Gothic	3	0	3
ARTS240L	Painting I	2	3	3
ARTS251L	Issues in Contemporary Art	1	0	1
	Art Elective	3	0	3
	Science Elective (3 credits)	3	0	3
	Social Science Elective	3	0	3
	Sub-Total Credits	**15**	**3**	**16**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ARTS216L	Drawing: Figure in Value	2	3	3
ARTS235L	20th Century Art	3	0	3
ARTS266L	Portfolio	2	0	2
	Mathematics Elective (3 credits)	3	0	3
	Science Elective (4 credits)	2	3	4
	Sub-Total Credits	**12**	**6**	**15**
	Total Credits			**63**

Art: Studio Art Track

Degree Type

Associate in Arts

An associate degree in Art at LRCC offers a choice of two concentrations: Art Education and Studio Art.They share a core of 4 classes in studio foundations and history. Both tracks offer a strong arts foundation for entry into the field and several options for transferring to 4-year programs.

The Studio Art track focuses on drawing and painting and has elective options in printmaking, ceramics, and digital media . Students will leave the program with a sense of their own creative process and a personal website to market themselves and their work to galleries, job prospects or transfer to a 4-year program. With this degree a student is prepared for entry into the field or continued education.

The Art Education track provides students with a survey of studio art courses and art education courses. Students will spend time in elementary, middle or high school art classrooms, observing and interacting with students and teachers. Upon completion of the degree students will be prepared to teach art in a private setting or to transfer to a 4-year institution to complete their Bachelors in Art Education and earn their teaching certificate.

Students who complete the program will:

- translate the 3D world onto a 2D surface through drawing, painting, or digital media,
- utilize the elements of composition, 2D design, 3D design and color theory,
- realize and create a cohesive body of work, photograph and organize this work into an online portfolio and layout and hang this work in a professional manner,
- understand and discuss current trends in the art world,
- communicate effectively both orally and in writing as well as through artistic communications,
- explore diverse ideas and emotions, as expressed through art history, to evaluate the effect of historical trends, events, institutions, and social systems as applied to the arts,
- perform mathematical operations basic to functioning in present and future disciplines or occupations and to prepare for further education,
- demonstrate scientific thought both quantitatively and qualitatively by learning to recognize and formulate questions for analysis of human and technical problems.

First Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ARTS111L	Introduction to Drawing	2	3	3
ARTS120L	2-D Design	2	3	3
ARTS131L	Art History: Prehistoric to Gothic	3	0	3
ENGL100L	English Composition	4	0	4
INDL100L	College Essentials	1	0	1
	Social Science Elective	3	0	3
	Sub-Total Credits	**15**	**6**	**17**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ARTS125L	3-D Design	2	3	3
ARTS136L	Art History: Renaissance to Modernism	3	0	3
	English Elective	3	0	3
	Mathematics Elective (3 credits)	3	0	3
	Social Science Elective	3	0	3
	Sub-Total Credits	**14**	**3**	**15**

Second Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ARTS116L	Drawing: Personal Voice	2	3	3
ARTS240L	Painting I	2	3	3
ARTS251L	Issues in Contemporary Art	1	0	1
	Art Elective	3	0	3
	Science Elective (3 credits)	3	0	3
	Social Science Elective	3	0	3
	Sub-Total Credits	**14**	**6**	**16**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ARTS216L	Drawing: Figure in Value	2	3	3
ARTS266L	Portfolio	2	0	2
	Art or Graphic Design Elective	3	0	3
	Mathematics Elective (3 credits)	3	0	3
	Science Elective (4 credits)	2	3	4
	Sub-Total Credits	**12**	**6**	**15**
	Total Credits			**63**

Automotive Technology

Automotive Service Education Program (GM ASEP)

Degree Type

Associate in Applied Science

GM ASEP fulfills two very important goals in providing the best possible education for GM Technicians. First, it combines state-of-the-art technical training with appropriate academic coursework and dealership experience. Secondly, it fills an industry need for well-educated and motivated technicians capable of continued growth in a technologically dynamic field.

Graduates who successfully complete the 21-month cooperative education Automotive Service Education Program will receive an Associate in Applied Science Degree in Automotive Technology and credits toward GM Master Certification in all areas. The Co-op education program allows students to earn money while they work and learn in a General Motors dealership.

No college or educational program can guarantee its graduates a job in the future, but ASEP comes very close to doing just that. GM ASEP students are already working while in school. They receive training on specific products and dealership operations. GM ASEP graduates fulfill minimum training requirements that GM dealerships are obligated to meet. This makes them a valuable addition to the dealership.

The need for well-educated technicians to repair and service automobiles will be around for many years to come. Some GM ASEP graduates have gone on to become teachers, field service engineers, service managers or owners of their own dealerships. The potential for personal and financial growth in this industry is high.

The GM ASEP degree program has a limited number of spaces; therefore, students are carefully selected after consideration of their academic record, scores on the placement exam and an interview with the Automotive Department. The College's rolling admissions policy does not apply to the GM ASEP program. All candidates for this program must take the College's placement exam and must secure a GM dealer sponsor prior to an admissions decision.

Technical Requirements
A candidate for GM ASEP must:

- have a high school degree or equivalent.
- interview with one of the automotive faculty;
- be sponsored by a General Motors dealership/AC Delco Professional Service Center;
- have command of the English language
- have reading comprehension skills sufficient to read and comprehend service literature;
- have communication skills sufficient to prepare required reports;
- be able to understand and follow both written and oral instructions;
- be able to complete requirements for college level classes;
- have sufficient vision to distinguish colors, read gauges, scopes, diagnostic equipment and information from a computer screen (adaptive equipment acceptable);
- have sufficient hearing to distinguish various sounds and noises (adaptive equipment acceptable);
- have the ability to stand for extended periods of time and the physical strength to lift automotive parts and equipment;
- have sufficient dexterity to perform manual skills related to automotive service;
- be able to work in an automotive service facility environment;
- maintain a valid driver's license;
- be able to purchase the minimum required tools.

Students who complete the program will:

- have skills necessary to service and maintain GM vehicles and the integrated systems used on these vehicles.
- have the skills necessary to diagnose and repair GM vehicles and the integrated systems used on these vehicles.
- have the skills necessary to develop and maintain a training path for continued growth using GM Service Technology College (GMSTC).

First Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO121L	Automotive Systems	2	9	5
AUTO128L	GM Automotive Electricity	2	8	4
ENGL100L	English Composition	4	0	4
INDL100L	College Essentials	1	0	1
	Social Science Elective	3	0	3
	Sub-Total Credits	**12**	**17**	**17**

Winter Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO170L	GM ASEP Cooperative Education I	0	12	4
	Sub-Total Credits	**0**	**12**	**4**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO225L	GM Chassis Systems	2	8	4
AUTO136L	GM Engine and Engine Related Electrical	2	9	5
ENGL124L	Business Communications	3	0	3
	Mathematics Elective (4 credit)	4	0	4
	Sub-Total Credits	**11**	**17**	**16**

Summer Semester I

Item #	Title	Class Hours	Lab Hours	Credits
AUTO200L	GM Heating, Ventilation & Air Conditioning	2	8	3
AUTO211L	GM Supplemental Inflatable Restraint & Accessories	2	8	3
	Sub-Total Credits	**4**	**16**	**6**

Summer Semester II

Item #	Title	Class Hours	Lab Hours	Credits
AUTO176L	GM ASEP Cooperative Education II	0	6	2
	Sub-Total Credits	**0**	**6**	**2**

Second Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO275L	GM ASEP Cooperative Education III	0	12	4
	Sub-Total Credits	**0**	**12**	**4**

Winter Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO222L	GM Drive Trains	2	9	5
AUTO134L	GM Fuel and Emissions	2	8	4
PHYS128L	Introduction to Physical Sciences	3	2	4
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Sub-Total Credits	**10**	**19**	**16**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO290L	GM ASEP Cooperative Education IV	0	12	4
	Sub-Total Credits	**0**	**12**	**4**
	Total Credits			**69**

Automotive Technology

Degree Type

Associate in Applied Science

The constantly evolving automotive industry needs well-educated and motivated technicians capable of continued growth and lifelong learning skills as new advanced technologies find their way onto our roads. The Automotive Technology track at LRCC consist of a series of evening and Saturday courses that provide students a well-rounded education with an emphasis on the service, diagnosis, and repair of today's complex automobiles and their integrated systems. Graduates who successfully complete the two-year Automotive Technology Program will receive an Associate in Applied Science Degree in Automotive Technology. Attaining this degree will open doors to numerous opportunities for higher skills jobs, income, and continued personal and professional growth. The range of career options include automotive technician in an independent shop or a franchise shop; parts person; service advisor; service management, ownership, and possible pathways to teaching.

Evening and Saturday hours make this program a convenient option for those individuals already working in the field, who want to improve their understanding and skills, or have the desire to prepare for ASE

Certification testing. The courses are a combination of classroom theory and invaluable hands-on lab experience. Master Certified Technicians teach classes with many years of experience solving the technical concerns related to engine performance, emissions, drive train, steering, suspension and braking systems, audio systems and HVAC.

Technical Requirements

The Automotive Technology student must:

- have a high school degree or equivalent.
- interview with one of the automotive faculty.
- have command of the English language.
- have reading comprehension skills sufficient to read and comprehend service literature.
- have communication skills sufficient to prepare required reports.
- be able to understand and follow both written and oral instructions.
- be able to complete requirements for college level classes.
- have sufficient vision to distinguish colors, read gauges, scopes, diagnostic equipment and information from a computer screen (adaptive equipment acceptable).
- have sufficient hearing to distinguish various sounds and noises (adaptive equipment acceptable);
- be able to stand for extended periods of time and the physical strength to lift automotive parts and equipment.
- have sufficient dexterity to perform manual skills related to automotive service.
- be able to work in an automotive service facility environment.
- maintain a valid driver's license.
- be able to purchase the minimum required tools.

Students who complete the program will:

- be able to identify learning needs and construct activities to attain continuous growth through self-directed lifelong learning.
- be able to safely perform routine diagnostics, service and repair on today's modern cars and light trucks.
- be able to safely diagnose and repair the integrated systems used on today's advanced vehicles.

First Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO120L	Introduction to Automotive Service	2	4	3
AUTO150L	Suspension and Steering	3	7	4
AUTO138L	Electrical/Electronics I	3	5	4
ENGL100L	English Composition	4	0	4
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**13**	**16**	**16**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO139L	Electrical/Electronics II	3	5	4
AUTO140L	Braking Systems	3	4	4
ENGL124L	Business Communications	3	0	3
	Mathematics Elective (3 credits)	3	0	3
	Sub-Total Credits	**12**	**9**	**14**

Summer Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO145L	HVAC Systems	3	7	4
AUTO137L	Engine Mechanical	3	5	4
	Social Science Elective	3	0	3
	Sub-Total Credits	**9**	**12**	**11**

Second Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO240L	Manual Drive Trains	3	4	4
AUTO245L	Engine Performance I	3	5	4
	Science Elective (3 credits)	3	0	3
	Liberal Arts Elective	3	0	3
	Sub-Total Credits	**12**	**9**	**14**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO246L	Engine Performance II	3	5	4
AUTO265L	Automatic Transmissions and Transaxles	3	6	4
AUTO270L	Advanced Technology Systems	3	0	4
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Sub-Total Credits	**12**	**11**	**15**
	Total Credits			**70**

Toyota/Lexus T-Ten

Degree Type

Associate in Applied Science

The Toyota-Technician Education Network (T-TEN) is the result of a partnership between USA Toyota Motor Sales, the Northeast Region's Toyota/Lexus dealerships and Lakes Region Community College. The T-TEN technician education program provides the best possible education for Toyota Lexus Technicians as it combines state of the art technical training on the latest Toyota and Lexus vehicles with appropriate academic course work and paid dealership experience. The T-TEN program fills an industry need for well-educated and motivated technicians with specific product knowledge immersed in Toyota Lexus culture of continuous improvement. Successful T-TEN students have developed the skills and attitudes that make them capable of continued growth in a technologically dynamic field. Graduates who complete the 22- month cooperative education Toyota Lexus technician education program will receive an Associate of Applied Science Degree in Automotive Technology and Toyota Lexus certifications in all areas.

Once you've enrolled in the program and secured a sponsoring dealer, you will divide your time between the classroom and dealership work experience. All tuition, fees, textbooks, tools, housing and travel expenses are the responsibility of the student. However, since you are paid for your work at your dealership, much of these costs will be offset.

The close working relationship established between the student and the sponsoring dealership coupled with the Toyota Lexus certifications ensure a rewarding career as a Toyota or Lexus technician at your sponsoring dealership. The AAS degree may open doors for future career growth in other areas of the industry including management at the dealership, manufacturer positions and teaching positions.

The Toyota/Lexus T-TEN program has a limited number of spaces. Students selected after careful consideration of their academic record, scores on the placement exam and an interview with the Toyota Lexus instructors and dealership personnel. The College's rolling admissions policy does not apply to the T-TEN program. All candidates for this program must take the College's placement exam and must secure a Toyota or Lexus dealer sponsor prior to an admissions decision.

Technical Requirements

A candidate for T-TEN must:

- have a high school degree or equivalent.
- interview with one of the T-TEN faculty.
- be sponsored by a Toyota or Lexus dealership.
- have command of the English language
- have reading comprehension skills sufficient to read and comprehend Toyota Service Information.
- have communication skills sufficient to prepare required reports.
- be able to understand and follow both written and oral instructions.
- be able to complete requirements for college level classes.
- have sufficient vision to distinguish colors, read gauges, scopes, diagnostic equipment and information from a computer screen (adaptive equipment acceptable).
- have sufficient hearing to distinguish various sounds and noises (adaptive equipment acceptable);
- have the ability to stand for extended periods of time and the physical strength to lift automotive parts and equipment.
- have sufficient dexterity to perform manual skills related to automotive service.
- be able to work in an automotive service facility environment.
- maintain a valid driver's license with a good driving record.
- be able to purchase the minimum required tools.

Students who complete the program will:

- have skills necessary to service and maintain Toyota and Lexus vehicles and the integrated systems used on these vehicles.
- have the skills necessary to diagnose and repair Toyota and Lexus vehicles and the integrated systems used on these vehicles.
- have the skills necessary to develop and maintain a training path for continued growth using Toyota Lexus University of Toyota.

First Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO125L	Introduction to Toyota/Lexus Automotive System	1	6	4
AUTO131L	Toyota/Lexus Electrical I	1	6	4
AUTO135L	Toyota/Lexus Electrical II	1	6	4
ENGL100L	English Composition	4	0	4
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**8**	**18**	**17**

Winter Semester

Item #	Title	Class Hours	Lab Hours	Credits
	Sub-Total Credits	**0**	**2**	**1**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO141L	Toyota/Lexus Brakes	1	6	4
AUTO151L	Toyota/Lexus Suspension, Steering and Handling	1	6	4
AUTO210L	Toyota/Lexus Heating, Ventilation & Air Conditioning	1	6	4
ENGL124L	Business Communications	3	0	3
	Mathematics Elective (4 credit)	4	0	4
	Sub-Total Credits	**10**	**18**	**19**

Summer Semester I

Item #	Title	Class Hours	Lab Hours	Credits
AUTO257L	Toyota/Lexus Engine Repair	1	10	6
	Social Science Elective	3	0	3
	Sub-Total Credits	**4**	**10**	**9**

Summer Semester II

Item #	Title	Class Hours	Lab Hours	Credits
AUTO280L	Toyota/Lexus Cooperative Education II	0	2	1
	Sub-Total Credits	**0**	**2**	**1**

Second Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO281L	Toyota/Lexus Cooperative Education III	0	2	1
	Sub-Total Credits	**0**	**2**	**1**

Winter Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO255L	Toyota/Lexus Engine Control Systems I	1	6	4
AUTO256L	Toyota/Lexus Engine Control Systems II	1	6	4
AUTO152L	Toyota/Lexus Manual Drive Trains	1	6	4
PHYS128L	Introduction to Physical Sciences	3	2	4
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Sub-Total Credits	**9**	**20**	**19**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO267L	Toyota/Lexus Automatic Transmissions	1	6	4
AUTO282L	Toyota/Lexus Cooperative Education IV	0	2	1
	Sub-Total Credits	**1**	**8**	**5**
	Total Credits			**72**

Advanced Automotive

Degree Type
Certificate

Certificate Requirements

Item #	Title	Class Hours	Lab Hours	Credits
AUTO120L	Introduction to Automotive Service	2	4	3
AUTO137L	Engine Mechanical	3	5	4
AUTO138L	Electrical/Electronics I	3	5	4
AUTO139L	Electrical/Electronics II	3	5	4
AUTO140L	Braking Systems	3	4	4
AUTO145L	HVAC Systems	3	7	4
AUTO150L	Suspension and Steering	3	7	4
AUTO240L	Manual Drive Trains	3	4	4
AUTO245L	Engine Performance I	3	5	4
AUTO246L	Engine Performance II	3	5	4
AUTO265L	Automatic Transmissions and Transaxles	3	6	4
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**33**	**57**	**44**
	Total Credits			**44**

Basic Automotive

Degree Type
Certificate

Certificate Requirements

Students in the Basic Automotive Certificate may take a co-op if desired.

Item #	Title	Class Hours	Lab Hours	Credits
AUTO120L	Introduction to Automotive Service	2	4	3
AUTO137L	Engine Mechanical	3	5	4
AUTO138L	Electrical/Electronics I	3	5	4
AUTO139L	Electrical/Electronics II	3	5	4
AUTO140L	Braking Systems	3	4	4
AUTO150L	Suspension and Steering	3	7	4
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**18**	**30**	**24**
	Total Credits			**24**

Toyota/Lexus T-Ten

Degree Type
Level One Certificate

First Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO125L	Introduction to Toyota/Lexus Automotive System	1	6	4
AUTO131L	Toyota/Lexus Electrical I	1	6	4
AUTO135L	Toyota/Lexus Electrical II	1	6	4
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**4**	**18**	**13**

Winter Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO175L	Toyota/Lexus Cooperative Education I	0	2	1
	Sub-Total Credits	**0**	**2**	**1**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO141L	Toyota/Lexus Brakes	1	6	4
AUTO151L	Toyota/Lexus Suspension, Steering and Handling	1	6	4
AUTO210L	Toyota/Lexus Heating, Ventilation & Air Conditioning	1	6	4
	Sub-Total Credits	**3**	**18**	**12**
	Total Credits			**26**

Toyota/Lexus T-Ten

Degree Type

Level Two Certificate

First Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO125L	Introduction to Toyota/Lexus Automotive System	1	6	4
AUTO131L	Toyota/Lexus Electrical I	1	6	4
AUTO135L	Toyota/Lexus Electrical II	1	6	4
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**4**	**18**	**13**

Winter Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO175L	Toyota/Lexus Cooperative Education I	0	2	1
	Sub-Total Credits	**0**	**2**	**1**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO141L	Toyota/Lexus Brakes	1	6	4
AUTO151L	Toyota/Lexus Suspension, Steering and Handling	1	6	4
AUTO210L	Toyota/Lexus Heating, Ventilation & Air Conditioning	1	6	4
	Sub-Total Credits	**3**	**18**	**12**

Summer Semester I

Item #	Title	Class Hours	Lab Hours	Credits
AUTO257L	Toyota/Lexus Engine Repair	1	10	6
	Sub-Total Credits	**1**	**10**	**6**

Summer Semester II

Item #	Title	Class Hours	Lab Hours	Credits
AUTO280L	Toyota/Lexus Cooperative Education II	0	2	1
	Sub-Total Credits	**0**	**2**	**1**

Second Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO281L	Toyota/Lexus Cooperative Education III	0	2	1
	Sub-Total Credits	**0**	**2**	**1**

Winter Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO255L	Toyota/Lexus Engine Control Systems I	1	6	4
AUTO256L	Toyota/Lexus Engine Control Systems II	1	6	4
AUTO152L	Toyota/Lexus Manual Drive Trains	1	6	4
	Sub-Total Credits	**3**	**18**	**12**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO267L	Toyota/Lexus Automatic Transmissions	1	6	4
AUTO282L	Toyota/Lexus Cooperative Education IV	0	2	1
	Sub-Total Credits	**1**	**8**	**5**
	Total Credits			**51**

Business Management

Business Management

Degree Type

Associate in Science

The Business Management program is designed to provide students with a broad background in the areas of entrepreneurship, marketing, management, human resources, finance, international business, project

management, and technology. A strong emphasis is placed on the development of analytical skills and problem solving. Additionally, students are encouraged to relate theoretical learning to practice and establish bridges between the classroom and work environment. Students are also encouraged to participate in the campus business club, seek internships to network, and further develop their skills.

Opportunities exist everywhere for students who study business, from business and industry to non-profit and service organizations, to owning and operating one's own business. Virtually every business in existence relies on organizational and business skills to ensure that the business runs smoothly.

Upon completion of the Business Management program, students seek careers in many different areas of business and/or transfer to four-year institutions. For students interested in continuing with their college education, transfer agreements with four-year institutions may be available. Call or email the department chair for details.

Students who complete the program will:

- apply reading, thinking, writing, and oral communication skills to convey ideas, information, and intentions effectively and in a manner that is appropriate to a professional organization or business.
- apply appropriate analytical tools and critical thinking to identify core issues, evaluate alternatives, and make informed decisions to solve problems in complex business situations.
- work effectively in a team environment by working cooperatively and collaboratively to help their team achieve a common objective by leveraging the strengths of others, and developing trusting and supportive relationships with teammates, managing conflicts within the team, and adapting to the needs of the team.
- recognize ethical issues, apply ethical frameworks to analyze them, differentiate between ethical and unethical behavior and integrate ethical understanding and societal responsibility into decision-making.
- demonstrate the effective use of the leadership skills of adaptability, influence, vision, organization, and motivation to make responsible decisions within an organization and achieve organizational objectives.
- understand information technology as it affects the structure of and processes of organizations and economics, and how the use of technology manifests itself in the establishment and accomplishment of strategic goals of the organization.
- understand and manage cultural differences, diversity issues, and participation in a global economy as they relate to business functions and processes in domestic and global settings.
- professional competence of business subject matter knowledge of in the core business areas of accounting, management, economics, and law.

First Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ACCT131L	Accounting I	3	0	3
BUS130L	Introduction to Business	3	0	3
CIS133L	Introduction to Information Technology	2	2	3
ENGL100L	English Composition	4	0	4
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**13**	**2**	**14**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ACCT132L	Accounting II	3	0	3
BUS160L	Principles of Marketing	3	0	3
ENGL124L	Business Communications	3	0	3
	SOSC231L or SOSC232L	3	0	3
	Mathematics Elective (4 credit)	4	0	4
	Sub-Total Credits	**16**	**0**	**16**

Second Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
BUS231L	Principles of Management	3	0	3
BUS240L	Introduction to Project Management	3	0	3
	Business Elective (for Business Management)	3	0	3
	Business Elective (for Business Management)	3	0	3
	Science Elective (3 credits)	3	0	3
	Sub-Total Credits	**15**	**0**	**15**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
BUS238L	Business Law I	3	0	3
BUS252L	Introduction to International Business	3	0	3
BUS235L	Small Business Management: A Capstone Course	3	0	3
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Social Science Elective	3	0	3
	Sub-Total Credits	**15**	**0**	**15**
	Total Credits			**60**

Business Management

Degree Type

Certificate

Certificate Requirements

Item #	Title	Class Hours	Lab Hours	Credits
ACCT131L	Accounting I	3	0	3
ACCT132L	Accounting II	3	0	3
BUS130L	Introduction to Business	3	0	3
BUS235L	Small Business Management: A Capstone Course	3	0	3
BUS231L	Principles of Management	3	0	3
BUS160L	Principles of Marketing	3	0	3
CIS133L	Introduction to Information Technology	2	2	3
ENGL124L	Business Communications	3	0	3
INDL100L	College Essentials	1	0	1
	BUS233L or BUS 241L	3	0	3
	Sub-Total Credits	**27**	**2**	**28**
	Total Credits			**28**

Computer Information Systems

Computer Information Systems

Degree Type

Associate in Science

Computer Information Systems Associate of Science degree provides students with the opportunity to be well rounded in technology its effect on business and users. A degree in Computer Information Systems will allow students to get core foundations in many different areas of the computer industry. Students will learn programming, networking, databases, web design, hardware, software, communication, and business skills to prepare them for a position succeeding in any of those areas. This degree will set students up to transfer to many different schools in New Hampshire and New England, as well as the rest of the country and world should they choose. This degree provides students with flexibility to work in many capacities within IT for not just IT companies, but also for any business that would have an IT department or need. Students will look to gain employment as Computer Support Specialists, Network and Systems Administrators, Web or Programming Developers, and Information Systems Managers. Several stackable certificates are available during the program, including PC Applications Specialist, CIS Tech Certificate and a Programmer Certificate.

Program Objectives:

1. Introduce students on how Computer Information Systems integrates with technology and business.
2. Provide students with the foundational knowledge in web development and object-oriented programming language and logic.
3. Prepare students to use the systems development life cycle along with its tools, techniques, methodologies, and processes, to develop computer-based information systems that meet the needs of businesses and organizations.
4. Provide students with database skills to design, implement, maintain and analyze those systems.
5. Introduce students to networking and data communication skills and security concepts.
6. Help students to explore career pathways in information technology to allow them to find a career that is right for them.

Learning Outcomes:

1. Demonstrate a foundation of Computer Information Systems technical skills, knowledge and a basic understanding of computer applications.
2. Demonstrate a broad understanding of how people, processes and data work together to become Information Systems.
3. Demonstrate the ability to work as a part of an information technology team with effective use of the internet and the ability to disseminate information strategically.
4. Demonstrate the ability to think logically in troubleshooting computer problems and finding possible solutions.
5. Demonstrate proficiency with English Composition and Business fundamentals.
6. Demonstrate a basic understanding of various forms of programming languages and how to construct programming logic.
7. Demonstrate the basic understanding of relational databases
8. Demonstrate the ability to understand operating systems and networking solutions to connect those systems securely.

First Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
CIS133L	Introduction to Information Technology	2	2	3
CIS136L	Fundamentals of Information Technology	2	2	3
CIS141L	Information Systems	2	2	3
ENGL100L	English Composition	4	0	4
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**11**	**6**	**14**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CIS140L	Introduction to Programming	3	2	4
	CIS210L OR CIS261L OR CIS262L	2	2	3
CIS252L	Managing & Troubleshooting Personal Computers	2	2	3
BUS130L	Introduction to Business	3	0	3
	Mathematics Elective (3 credits)	3	0	3
	Sub-Total Credits	**13**	**6**	**16**

Second Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
CIS248L	Introduction to Networks	2	2	3
CIS215L	Intermediate Programming	3	2	4
CIS271L	Analyzing Software Requirements	2	2	3
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Social Science Elective	3	0	3
	Sub-Total Credits	**13**	**6**	**16**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CIS242L	Database Management and Design	2	2	3
	CIS261L OR CIS262L OR CIS267L	2	2	3
CIS234L	Website and Design Development	2	2	3
	Science Elective (3 credits)	3	0	3
	Computer Information Systems Elective	2	2	3
	Sub-Total Credits	**11**	**8**	**15**
	Total Credits			**61**

PC Applications

Degree Type

Certificate

Certificate Requirements

Item #	Title	Class Hours	Lab Hours	Credits
CIS133L	Introduction to Information Technology	2	2	3
CIS136L	Fundamentals of Information Technology	2	2	3
CIS141L	Information Systems	2	2	3
CIS235L	Spreadsheets	2	2	3
BUS130L	Introduction to Business	3	0	3
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**12**	**8**	**16**
	Total Credits			**16**

Programming

Degree Type
Certificate

Certificate Requirements

Item #	Title	Class Hours	Lab Hours	Credits
CIS136L	Fundamentals of Information Technology	2	2	3
CIS140L	Introduction to Programming	3	2	4
CIS215L	Intermediate Programming	3	2	4
CIS216L	Advanced Programming	3	2	4
CIS234L	Website and Design Development	2	2	3
CIS292L	Mobile Application Development	2	2	3
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**16**	**12**	**22**
	Total Credits			**22**

Technologist

Degree Type
Certificate

Certificate Requirements

Item #	Title	Class Hours	Lab Hours	Credits
CIS133L	Introduction to Information Technology	2	2	3
CIS136L	Fundamentals of Information Technology	2	2	3
CIS141L	Information Systems	2	2	3
CIS248L	Introduction to Networks	2	2	3
CIS261L	Installing and Configuring Windows Servers	2	2	3
CIS252L	Managing & Troubleshooting Personal Computers	2	2	3
	CIS210L OR CIS262L	2	2	3
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**15**	**14**	**22**
	Total Credits			**22**

Culinary Arts/Pastry Arts

Culinary Arts

Degree Type
Associate in Science

This two-year program prepares students for entry to mid-level employment in a variety of culinary venues. It combines a foundation of culinary and management skills the industry demands. The curriculum incorporates opportunities to learn and work in a student-operated restaurant. Summer employment in culinary complements the learning experience. These workplace opportunities provide the student with hands-on knowledge and the benefit of work experience.

Technical Requirements

Culinary Arts candidates must:

- have written and verbal command of the English language;
- be capable of lifting or carrying at least twenty-five pounds;
- comprehend new terminology;
- understand the importance of personal hygiene, appearance, and etiquette for interaction with the public;
- have the physical and mental ability to satisfy long hours, demands, and stress that the restaurant industry cultivates.

Culinary Arts is a fast-growing field with tremendous job potential. Quality employees are always in high demand. The Culinary Arts program provides opportunities for fulfilling jobs in all aspects of an exciting and growing industry.

Students who complete the program will

- demonstrate basic knife skills as well as describe the French terminology of each knife cut;
- prepare stocks, sauces, soups from fundamental ingredients following industry practice;
- demonstrate using procedures and terminology in creating recipes from basic ingredients;
- produce several regional ethnic dishes from within the United States and internationally;
- demonstrate the use of the different pieces of equipment in the kitchen;
- demonstrate different cooking techniques such as sautéing, roasting, grilling, boiling, steaming, braising;
- be hired from entry-level to sous-chef positions in larger restaurants;
- be able to manage a fully functioning kitchen as a culinary cook in smaller establishments;
- establish cost and purchasing controls in food management;
- apply hospitality laws to any kitchen/dining service venue.

First Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
CULA146L	Bakery Production	1	5	3
CULA151L	Culinary Fundamentals	1	6	3
CULA152L	Sanitation & Safety	3	0	3
ENGL100L	English Composition	4	0	4
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**10**	**11**	**14**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CULA158L	Restaurant Facility & Menu Design	3	0	3
CULA159L	Cost Control	3	0	3
HOS113L	Introduction to Worldwide Cuisine	1	6	3
HOS114L	Dining Room Management I	0	6	3
	Mathematics Elective (3 credits)	3	0	3
	Sub-Total Credits	**10**	**12**	**15**

Summer Semester

Item #	Title	Class Hours	Lab Hours	Credits
CULA232L	Culinary Cooperative Education	0	9	3
	Sub-Total Credits	**0**	**9**	**3**

Second Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
CULA253L	Introduction to Garde Manger	1	6	3
CULA254L	Classical Cuisine	1	6	3
HOS222L	Quantity Food Purchasing	3	0	3
BIOL127L	Nutrition for Health and Fitness with Laboratory	3	2	4
	Social Science Elective	3	0	3
	Sub-Total Credits	**11**	**14**	**16**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CULA147L	Hot and Cold Plated Desserts	1	5	3
CULA255L	Italian Cuisine	1	6	3
CULA256L	U.S. Regional & Infusion Cuisine	1	6	3
	English Elective	3	0	3
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Sub-Total Credits	**9**	**17**	**15**
	Total Credits			**63**

Pastry Arts

Degree Type

Associate in Science

This two-year program prepares students for entry to mid-level employment in a variety of pastry venues. It combines a foundation of pastry and management skills the industry demands. The curriculum incorporates opportunities to learn and work in a student-operated pastry kitchen. Summer employment in pastry arts complements the learning experience. These workplace opportunities provide the student with hands-on knowledge and the benefit of work experience.

Technical Requirements

Pastry Arts candidates must:

- have an understanding and command of the English language.
- be capable of lifting and carrying at least twenty-five pounds unassisted.
- comprehend and use new career terminology.
- understand the necessity for personal hygiene, appearance, and etiquette when interacting with the public and display it for the duration of the school/working hours.
- have the physical and mental ability to satisfy long hours, demands, and stress that embodies the pastry industry.
- must display complete knowledge of all safety rules/regulations in the workplace and fully comply with them.

Pastry Arts is a fast-growing field with tremendous job potential. Quality employees are always in high demand. The Pastry Arts program provides opportunities for fulfilling jobs in all aspects of an exciting and growing industry.

Students who complete the program will:

- Demonstrate knowledge of the pastry kitchen and patisserie operations.
- Produce product, purchase, price and cost goods for profit and sale in a pastry shop.
- Demonstrate a strong foundation in fundamental baking techniques.
- Demonstrate using procedures and terminology in creating formulas from basic ingredients.
- Produce several regional ethnic pastries and desserts from within the United States and internationally.
- Demonstrate the use of the different pieces of equipment in the kitchen.
- Exhibit a strong sense of teamwork.
- Be hired from entry-level to beginning supervisory positions in bakeshops, hotels, and retail establishments.
- Be able to manage, as a baker, a fully functioning pastry kitchen in smaller establishments.
- Show the ability to use technology for the advancement of managerial duties in order to support pastry establishments.
- Apply hospitality laws to any pastry kitchen/dining service venue.
- Demonstrate basic knowledge in advanced pastry methods.
- Display knowledge of nutritional baking and practices.

First Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL100L	English Composition	4	0	4
INDL100L	College Essentials	1	0	1
CULA145L	Breads and Rolls	1	5	3
CULA146L	Bakery Production	1	5	3
CULA152L	Sanitation & Safety	3	0	3
	Sub-Total Credits	**10**	**10**	**14**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL124L	Business Communications	3	0	3
CULA147L	Hot and Cold Plated Desserts	1	5	3
CULA148L	Cake Decorating	1	5	3
CULA159L	Cost Control	3	0	3
	Mathematics Elective (3 credits)	3	0	3
	Sub-Total Credits	**11**	**10**	**15**

Summer Semester

Item #	Title	Class Hours	Lab Hours	Credits
CULA230L	Pastry Arts Cooperative Education	0	9	3
	Sub-Total Credits	**0**	**9**	**3**

Second Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
BIOL127L	Nutrition for Health and Fitness with Laboratory	3	2	4
CULA210L	Nutritional & Alternative Baking	1	5	3
CULA220L	Advanced Cake Decorating	1	5	3
	Liberal Arts Elective	3	0	3
	Social Science Elective	3	0	3
	Sub-Total Credits	**11**	**12**	**16**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CULA149L	Baking and Pastry Technologies	1	5	3
CULA158L	Restaurant Facility & Menu Design	3	0	3
CULA225L	Advanced Pastry and Confections	1	5	3
CULA231L	Pastry Arts Capstone	1	0	1
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Sub-Total Credits	**9**	**10**	**13**
	Total Credits			**61**

Culinary Arts

Degree Type
Certificate

Certificate Requirements

Item #	Title	Class Hours	Lab Hours	Credits
CULA146L	Bakery Production	1	5	3
CULA151L	Culinary Fundamentals	1	6	3
CULA152L	Sanitation & Safety	3	0	3
CULA254L	Classical Cuisine	1	6	3
CULA253L	Introduction to Garde Manger	1	6	3
HOS113L	Introduction to Worldwide Cuisine	1	6	3
CULA147L	Hot and Cold Plated Desserts	1	5	3
CULA255L	Italian Cuisine	1	6	3
CULA256L	U.S. Regional & Infusion Cuisine	1	6	3
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**12**	**46**	**28**
	Total Credits			**28**

Pastry Arts

Degree Type
Certificate

Certificate Requirements

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
INDL100L	College Essentials	1	0	1
CULA145L	Breads and Rolls	1	5	3
CULA146L	Bakery Production	1	5	3
CULA148L	Cake Decorating	1	5	3
CULA152L	Sanitation & Safety	3	0	3
	Sub-Total Credits	**7**	**15**	**13**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CULA147L	Hot and Cold Plated Desserts	1	5	3
CULA149L	Baking and Pastry Technologies	1	5	3
CULA220L	Advanced Cake Decorating	1	5	3
CULA225L	Advanced Pastry and Confections	1	5	3
	Sub-Total Credits	**4**	**20**	**12**

Summer Semester

Item #	Title	Class Hours	Lab Hours	Credits
CULA230L	Pastry Arts Cooperative Education	0	9	3
	Sub-Total Credits	**0**	**9**	**3**
	Total Credits			**28**

Early Childhood Education

Early Childhood Education

Degree Type
Advanced Certificate

Certificate Requirements

Item #	Title	Class Hours	Lab Hours	Credits
ECE121L	Growth and Development of the Young Child	3	0	3
ECE122L	Curriculum Development in Early Childhood	3	0	3
ECE123L	Foundations of Early Childhood Education	3	0	3
ECE124L	Health, Safety, and Nutrition in Early Childhood Education	3	0	3
ECE126L	Infant/Toddler Development	3	0	3
ECE165L	Practicum I - Observation, Assessment, and Documentation	1	6	3
	ECE224L or ECE231L	3	0	3
ENGL100L	English Composition	4	0	4
INDL100L	College Essentials	1	0	1
	Literature Elective	3	0	3
	Sub-Total Credits	**27**	**6**	**29**
	Total Credits			**29**

Early Childhood Education

Degree Type
Associate in Science

Early Childhood employment opportunities in New Hampshire remain excellent and continue to grow. Sixty-seven percent of children under the age of six in New Hampshire receive some form of childcare provided by persons other than their parents. Many of these young children spend eight to eleven hours each day in childcare. Because of a shortage of trained directors, teachers, and workers, many childcare programs strive but are unable to meet the developmental needs of children in their care.

The Early Childhood Education Associate in Science Degree program provides theoretical and practical experiences for preparation to work as an Early Childhood Education Director, responsible for the care and education of young children, management of personnel, finances, and facilities of an early childhood education program. The certificate prepares graduates to become childcare teachers.

The Early Childhood Education program seeks students who have a strong desire to nurture and care. To ensure that the Early Childhood Education Associate in Science applicant chooses the appropriate career, candidates are encouraged to meet with the program coordinator and the college counselor.

Successful completion of this program satisfies partial requirements of the New Hampshire Childcare Bureau of Licensing requirements for certification as a childcare director or teacher. Students seeking certification must meet all requirements of the NH Childcare Bureau of Licensing. This program also provides ideal preparation for those students wishing to continue their education on the baccalaureate level.

The New Hampshire Bureau of Childcare Standards and Licensing may restrict certification of candidates who have been involved in civil or criminal action. Contact the New Hampshire Bureau of Childcare Standards and Licensing for questions regarding certification restrictions

Students who complete the program will

- demonstrate knowledge of theories and developmentally appropriate practices (DAP) to foster child development and knowledge.
- apply understanding and application of NAEYC Standards
- demonstrate knowledge of advancing child development and learning
- create healthy, considerate, caring, and inspiring learning conditions for young children
- support and engage children's families, and their community through the development of positive relationships
- recognize the diversity of family dynamics and apply cultural competency in meeting the needs of their families / communities.
- justify and integrate a variety of assessments, observations and documentation to assist in curriculum planning and guidance for positive behaviors.
- continue to use reflective practices and resources to develop as a professional
- demonstrate ethical practices and integrity, in tandem with a collegial and collaborative disposition towards coworkers, families and the community.

First Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ECE121L	Growth and Development of the Young Child	3	0	3
ECE123L	Foundations of Early Childhood Education	3	0	3
ENGL100L	English Composition	4	0	4
INDL100L	College Essentials	1	0	1
ECE124L	Health, Safety, and Nutrition in Early Childhood Education	3	0	3
	Sub-Total Credits	**14**	**0**	**14**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ECE216L	Teaching Young Children with Exceptionalities	3	0	3
ECE224L	Teaching STEAM	3	0	3
ECE231L	Language and Literacy Development in Early Childhood	3	0	3
	PSYC125L or PSYC126L	3	0	3
	Mathematics Elective (4 credit)	4	0	4
	Sub-Total Credits	**16**	**0**	**16**

Second Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ECE210L	Positive Behavior Guidance in ECE	3	0	3
ECE126L	Infant/Toddler Development	3	0	3
ECE165L	Practicum I - Observation, Assessment, and Documentation	1	6	3
SOSC235L	Children, Youth and Families	3	0	3
	Open Elective	3	0	3
	Sub-Total Credits	**13**	**6**	**15**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ECE265L	Practicum II - Exploring Teaching, Curriculum Implantation	1	9	4
ECE230L	Developing and Administering a Child Care and Education Program	3	0	3
	Science Elective (3 credits)	3	0	3
	Open Elective	3	0	3
	Humanities Elective or PHIL227L	3	0	3
	Sub-Total Credits	**13**	**9**	**16**
	Total Credits			**61**

Associate Teacher

Degree Type

Certificate

This certificate program satisfies New Hampshire Childcare Bureau of Licensing requirements for childcare worker certification.

Certificate Requirements

Item #	Title	Class Hours	Lab Hours	Credits
ECE121L	Growth and Development of the Young Child	3	0	3
ECE124L	Health, Safety, and Nutrition in Early Childhood Education	3	0	3
ECE126L	Infant/Toddler Development	3	0	3
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**10**	**0**	**10**
	Total Credits			**10**

Lead Teacher

Degree Type
Certificate

This certificate program satisfies NH Childcare Bureau of Licensing requirements for teacher and childcare worker certification.

Certificate Requirements

Item #	Title	Class Hours	Lab Hours	Credits
ECE121L	Growth and Development of the Young Child	3	0	3
ECE122L	Curriculum Development in Early Childhood	3	0	3
ECE123L	Foundations of Early Childhood Education	3	0	3
ECE124L	Health, Safety, and Nutrition in Early Childhood Education	3	0	3
ECE126L	Infant/Toddler Development	3	0	3
ECE165L	Practicum I - Observation, Assessment, and Documentation	1	6	3
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**17**	**6**	**19**
	Total Credits			**19**

Electrical Technologies

Electrical Power and Control Technologies

Degree Type
Associate in Applied Science

The Electrical Power and Control Technologies degree program prepares students in the electrical industry and offers an ever-increasing number and variety of employment opportunities to qualified industrial electricians. Along with these opportunities come the responsibilities associated with one of today's most sophisticated technologies. A well-grounded individual can expect entry-level employment with rapid upward mobility in construction, industrial electricity, electrical design, or electrical inspection. Successful completion of this program satisfies all the related education requirements for electrical licensing within the State of New Hampshire. New Hampshire license holders receive reciprocity with the States of Massachusetts, Vermont, and Maine.

Technical Requirements

A successful ESIM or EPCT student must:

- have command of the English language;
- have the ability to stand for extended periods of time and have the physical strength to lift components and
- equipment;
- be able to purchase the minimum required tools and textbooks;
- be able to complete requirements for college level classes;
- have a high school diploma or equivalent;
- be able to understand and follow both written and oral instructions;
- have communication skills sufficient to prepare required reports;
- have sufficient dexterity to perform manual skills;
- be able to distinguish various sounds and noises and read instructions for course materials and other manipulative tasks (adaptive equipment acceptable);
- have reading comprehension skills sufficient to read and comprehend service literature.

Students who complete the program will

- demonstrate the mathematic skills necessary to solve electrical problems through the understanding of fractions and decimals, algebra, geometry, trigonometry, linear equations, roots, and practical applications of trigonometry, algebra, and geometry.
- demonstrate proficiency in the understanding and applications of electrical theory including but not limited to Alternating Current (AC) circuits, Direct Current (DC) circuits, series circuits, parallel circuits, series/parallel circuits, voltage, current, resistance, impedance, and power.
- have completed Occupational Safety and Health Administration's (OSHA) 30-hour construction site safety certification for the Construction Industry and NFPA 70E training for safe electrical work protocols.
- demonstrate proficiency in understanding and wiring electrical circuits including but not limited to residential, commercial, and industrial applications.
- demonstrate proficiency in designing, troubleshooting, and installing electrical controls.
- demonstrate an understanding of the operation and installation of Photovoltaic (PV) systems.
- accumulate lab hours that count toward the work experience requirement as a licensed State of New Hampshire electrical apprentice.
- demonstrate an in-depth understanding and application of the National Electric Code (NEC).
- demonstrate proficiency in using takeoff skills and ConEst software to generate cost estimates in order to generate work in the low bid market, as well as skills for successful project management.
- demonstrate proficiency in the design, installation, programming and troubleshooting of Programmable Logic Controllers (PLCs) and their associated circuitry.
- demonstrate an in-depth understanding of the theory of operation and troubleshooting of all types of AC and DC electric motors and generators.
- demonstrate an in-depth understanding of all types and configurations of power transformers and the complex theory of phase relationship, power efficiency, and power transfer ratios.
- demonstrate proficiency in the design, installation, electrical connections, and troubleshooting of complex electromechanical and solid-state electrical control circuits and devices.

First Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ETEC126L	Residential Wiring and Electrical Blueprint Reading	3	0	3
ETEC127L	Residential Wiring and Electrical Blueprint Reading Lab	0	6	2
ETEC124L	AC/DC Theory	4	3	5
ETEC141L	NEC I	2	0	2
MATH137L	Technical Algebra & Geometry	4	0	4
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**14**	**9**	**17**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ETEC128L	Fundamentals of Electrical Controls	2	6	4
ETEC130L	Rotating Machinery	2	6	4
ETEC142L	NEC II	2	0	2
PHYS125L	Technical Physics	2	2	3
ENGL100L	English Composition	4	0	4
	Sub-Total Credits	**12**	**14**	**17**

Second Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ETEC143L	NEC III	2	0	2
ETEC215L	Photovoltaics	2	3	3
ETEC240L	Stationary Machinery	2	6	4
	Liberal Arts Elective	3	0	3
	Sub-Total Credits	**9**	**9**	**12**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ETEC210L	Introduction to Electrical Estimating and Design	2	2	3
ETEC234L	Construction Site Safety	3	0	3
ETEC235L	Programmable Controllers	3	4	4
	Social Science Elective	3	0	3
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Sub-Total Credits	**14**	**6**	**16**
	Total Credits			**62**

Electrical Systems Installation and Maintenance

Degree Type

Associate in Applied Science

The Electrical Systems Installation and Maintenance degree program provides the knowledge needed for employment as an electrical construction electrician, industrial electrical technician, electrical estimator, or

electrical inspector. This program meets the education requirements of the New Hampshire Electrical Licensing Board. Opportunities for electrical construction electricians are available in nearly all geographic locations. Employment opportunities exist in residential construction, industrial construction, and commercial construction as an electrician or as a maintenance electrician. Graduates may find employment as industrial electricians, maintenance electricians, electrical inspectors, electrical estimators, or in any of the high-tech electrical fields.

Technical Requirements

A successful ESIM or EPCT student must:

- have command of the English language;
- have the ability to stand for extended periods of time and have the physical strength to lift components and
- equipment;
- be able to purchase the minimum required tools and textbooks;
- be able to complete requirements for college level classes;
- have a high school diploma or equivalent;
- be able to understand and follow both written and oral instructions;
- have communication skills sufficient to prepare required reports;
- have sufficient dexterity to perform manual skills;
- be able to distinguish various sounds and noises and read instructions for course materials and other manipulative tasks (adaptive equipment acceptable);
- have reading comprehension skills sufficient to read and comprehend service literature.

Students who complete the program will

- demonstrate the mathematical skills necessary to solve electrical problems through the understanding of fraction and decimals, algebra, geometry, trigonometry, linear equations, roots, and practical applications of trigonometry, algebra, and geometry.
- demonstrate proficiency in the understanding and applications of electrical theory including but not limited to Alternating Current (AC) circuits, Direct Current (DC) circuits, series circuits, parallel circuits, series/parallel circuits, voltage, current, resistance, impedance, and power.
- have completed Occupational Safety and Health Administration's (OSHA) 30-hour construction site and safety certification for the Construction Industry and NFPA70E training for safe electrical work protocols.
- demonstrate proficiency in understanding and wiring electrical circuits including but not limited to residential, commercial, and industrial applications.
- demonstrate proficiency in designing, troubleshooting, and installing electrical controls.
- demonstrate an understanding of the operation and installation of Photovoltaic (PV) systems.
- accumulate lab hours that count toward the work experience requirement as a licensed State of New Hampshire electrical apprentice.
- demonstrate an in-depth understanding and application of the National Electric Code (NEC).

First Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ETEC126L	Residential Wiring and Electrical Blueprint Reading	3	0	3
ETEC127L	Residential Wiring and Electrical Blueprint Reading Lab	0	6	2
ETEC124L	AC/DC Theory	4	3	5
ETEC141L	NEC I	2	0	2
MATH137L	Technical Algebra & Geometry	4	0	4
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**14**	**9**	**17**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ETEC123L	Wiring Theory and Techniques (Commercial)	4	6	6
ETEC142L	NEC II	2	0	2
ENGL100L	English Composition	4	0	4
PHYS125L	Technical Physics	2	2	3
	Sub-Total Credits	**12**	**8**	**15**

Second Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ETEC143L	NEC III	2	0	2
ETEC215L	Photovoltaics	2	3	3
ETEC230L	Electrical Motor Controls	2	3	3
	Social Science Elective	3	0	3
	Open Elective	3	0	3
	Sub-Total Credits	**12**	**6**	**14**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ETEC210L	Introduction to Electrical Estimating and Design	2	2	3
ETEC224L	Wiring Theory and Techniques (Industrial)	3	3	4
ETEC234L	Construction Site Safety	3	0	3
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Liberal Arts Elective	3	0	3
	Sub-Total Credits	**14**	**5**	**16**
	Total Credits			**62**

Electrical Power and Control Technologies

Degree Type

Certificate

Certificate Requirements

Item #	Title	Class Hours	Lab Hours	Credits
ETEC126L	Residential Wiring and Electrical Blueprint Reading	3	0	3
ETEC127L	Residential Wiring and Electrical Blueprint Reading Lab	0	6	2
ETEC124L	AC/DC Theory	4	3	5
ETEC128L	Fundamentals of Electrical Controls	2	6	4
ETEC130L	Rotating Machinery	2	6	4
ETEC141L	NEC I	2	0	2
ETEC142L	NEC II	2	0	2
MATH137L	Technical Algebra & Geometry	4	0	4
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**20**	**21**	**27**
	Total Credits			**27**

Electrical Systems Installation and Maintenance

Degree Type

Certificate

Certificate Requirements

Item #	Title	Class Hours	Lab Hours	Credits
ETEC126L	Residential Wiring and Electrical Blueprint Reading	3	0	3
ETEC127L	Residential Wiring and Electrical Blueprint Reading Lab	0	6	2
ETEC123L	Wiring Theory and Techniques (Commercial)	4	6	6
ETEC124L	AC/DC Theory	4	3	5
ETEC141L	NEC I	2	0	2
ETEC142L	NEC II	2	0	2
ETEC143L	NEC III	2	0	2
MATH137L	Technical Algebra & Geometry	4	0	4
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**22**	**15**	**27**
	Total Credits			**27**

Electro-Mechanical Technologies

Electro-Mechanical Technologies

Degree Type

Associate in Science

Currently in a Teach-Out Phase, Not Accepting New Applications

The Electro-Mechanical Technologies Degree at Lakes Region Community College consists of 11 core courses. Three of the core courses are part of the Advanced Manufacturing Degree and four of the core courses are part of the Electrical Power and Controls Technologies Degree. Successful students should have the necessary skills to enter the manufacturing work force, or excel in current employment, into machine technician positions. Students will have an understanding of electrical and mechanical theory and principals. Students will

have acquired shills in troubleshooting electrical, hydraulic, and pneumatic control systems. Students will also have acquired skills in Computer Numeric Controlled (CNC) machine operations, electrical controls programmable controllers, principles of electrical motors, critical thinking skills, oral and technical communication skills.

Students who complete the program will

- demonstrate mathematic skills necessary to solve manufacturing problems through the understanding of fractions and decimals, algebra, geometry, trigonometry, linear equations, roots, geometric figures, usage of tolerances, interpretation and usage of formulas and proportions, and practical applications of geometry and trigonometry.
- understand machine tools and machine tool operations such as milling, turning, drilling, cutting, grinding, and chamfering.
- demonstrate advanced CNC machine operations skills including offsets, work offsets, G-code programming, machine zeroing, and circular interpolation, set-up, tool selection, material selection, and operator maintenance.
- demonstrate computer Aided Manufacturing (CAM) and CAM-Mill skills in processes such as contouring, cycle time estimating, tool selection, material specification, cutter compensation, parameter changes, contour applications, roughing, finishing, and tool paths.
- understand AC/DC Electrical Theory and the application to CNC Machine diagnostics.
- interpret electrical control diagram, prints, and logic.
- understand electrical controls and programmable controllers.
- understand motors including drive motors and drive systems.
- troubleshoot skills for programmable controllers, motor drive units, and electrical controls.
- demonstrate an understanding of hydraulic and pneumatic fluid power systems' theories, operation, and troubleshooting.

First Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL100L	English Composition	4	0	4
ETEC124L	AC/DC Theory	4	3	5
ELMT120L	Fluid Power Systems	2	6	4
INDL100L	College Essentials	1	0	1
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Sub-Total Credits	**14**	**9**	**17**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ETEC128L	Fundamentals of Electrical Controls	2	6	4
ETEC130L	Rotating Machinery	2	6	4
MANF151L	CNC Machines I	2	0	2
MANF152L	CNC Machines I Lab	0	6	2
MATH137L	Technical Algebra & Geometry	4	0	4
	Sub-Total Credits	**10**	**18**	**16**

Second Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
PHYS125L	Technical Physics	2	2	3
MANF230L	CAD/CAM	2	3	3
MANF211L	CNC Machines II	1	0	1
MANF212L	CNC Machines II Lab	0	6	2
	Social Science Elective	3	0	3
	Sub-Total Credits	**8**	**11**	**12**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ETEC235L	Programmable Controllers	3	4	4
ELMT210L	Mechanical Drive Systems	2	4	4
	ELMT270L OR ELMT280L	0	0	3
	Liberal Arts Elective	3	0	3
	Open Elective	3	0	3
	Sub-Total Credits	**11-14**	**8-17**	**17**
	Total Credits			**62**

Machine Maintenance Technician

Degree Type
Certificate

Currently in a Teach-Out Phase, Not Accepting New Applications

First Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
INDL100L	College Essentials	1	0	1
MATH137L	Technical Algebra & Geometry	4	0	4
ETEC124L	AC/DC Theory	4	3	5
ELMT120L	Fluid Power Systems	2	6	4
	Sub-Total Credits	**11**	**9**	**14**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
MANF151L	CNC Machines I	2	0	2
MANF152L	CNC Machines I Lab	0	6	2
ELMT210L	Mechanical Drive Systems	2	4	4
ETEC128L	Fundamentals of Electrical Controls	2	6	4
	Sub-Total Credits	**6**	**16**	**12**
	Total Credits			**26**

Fire Technologies

The Lakes Region Community College Fire Technologies Department offers a certificate and an Associate's degree in Fire Science .

The program is designed and focusses on providing entry-level education and technical skills in fire science and Emergency Medical Services (EMS) and prepares graduates for employment as members of fire departments, EMS agencies, insurance companies, and other emergency response employers.

Both tracks include the opportunity to earn Pro Board accredited National Fire Protection Association Firefighter Level I and II, Hazardous Materials Awareness and Operations certifications, and at least their National Registry of Emergency Medical Technicians certification. Students seeking their degree enroll in additional classes covering a broader range of knowledge in firefighting, fire behavior and combustion, fire prevention and protection, building construction, fire investigation, fire and life safety education, fire department administration, and EMS.

To enhance our students educational experience LRCC has partnered with fire departments throughout New Hampshire allowing our students the opportunity to work, train and even live as interns to gain practical fire and EMS experience. For those already employed in the fire service, our degree will help them both increase their knowledge and advance their career.

The Lakes Region Community College Fire Science program is recognized by the United States National Fire Academy as a Fire and Emergency Services Higher Education (FESHE) program meeting their standard of excellence.

Upon completion of our program Fire Science graduates will be able to:

1. Understand the history, development and organization of fire and emergency services departments.
2. Examine and describe the National Fire Academy FESHE Model Curriculum.
3. Compare and contrast careers in fire and emergency services.
4. Demonstrate an understanding of online learning, information literacy, time-management, self-confidence, self-motivation, and setting long and short-term career goals.
5. Explain the emergency service culture and history related to the national firefighter life safety initiatives.
6. Explain the importance of maintaining physical, mental, financial, and emotional health and wellbeing.
7. Demonstrate the basic firefighting knowledge and skills needed to become certified as a Firefighter I and Firefighter II earning Pro Board certification.
8. Demonstrate the basic knowledge and skills of an Emergency Medical Technician (EMT) for National Registry of EMTs (NREMT) certification.
9. Evaluate laws, rules, regulations, and codes as they relate to fire prevention.
10. Explain how code enforcement as it impacts life and property loss.
11. Identify and summarize the fundamental theories of fire behavior and combustion.
12. Identify and describe various types and uses of fire protection systems and extinguishing agents.
13. Describe the basic elements of a public water supply system as it relates to fire protection.

14. Identify various classifications of building construction and describe how fire impacts major types of building construction.

15. Understand the value of higher education to the professionalization of the fire and EMS service.

Fire Science

Degree Type
Associate in Science

The student who successfully completes this program will:

- be prepared for employment in a fire department;
- understand policies and procedures involving emergency responder safety;
- understand procedures used on and off an emergency scene;
- understand psychological factors associated with firefighting and emergency medical services.

First Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
FIRE124L	Principles of Emergency Services	3	0	3
FIRE180L	Firefighter I & II	4	12	8
ENGL100L	English Composition	4	0	4
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**12**	**12**	**16**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
FIRE127L	Fire Behavior and Combustion	3	0	3
FIRE131L	Fire Protection Systems	3	0	3
FIRE140L	Building Construction for Fire Protection	3	0	3
FIRE225L	Emergency Medical Technician - Basic	1	6	3
	Mathematics Elective (3 credits)	3	0	3
	Sub-Total Credits	**13**	**6**	**15**

Second Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
FIRE160L	Fire Prevention	3	0	3
FIRE250L	Fire Protection Hydraulics and Water Supply	3	0	3
FIRE224L	Strategy and Tactics	3	0	3
	Science Elective (3 credits)	3	0	3
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Sub-Total Credits	**15**	**0**	**15**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
FIRE234L	Fire & Emergency Services Safety & Survival	3	0	3
ENGL124L	Business Communications	3	0	3
	Fire Science Elective	6	0	6
	Social Science Elective	3	0	3
	Sub-Total Credits	**15**	**0**	**15**
	Total Credits			**61**

Fire Science

Degree Type
Certificate

Certificate Requirements

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
FIRE124L	Principles of Emergency Services	3	0	3
FIRE160L	Fire Prevention	3	0	3
FIRE180L	Firefighter I & II	4	12	8
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**11**	**12**	**15**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
FIRE127L	Fire Behavior and Combustion	3	0	3
FIRE131L	Fire Protection Systems	3	0	3
FIRE140L	Building Construction for Fire Protection	3	0	3
FIRE225L	Emergency Medical Technician - Basic	1	6	3
FIRE210L	Fire Inspector I	3	0	3
FIRE234L	Fire & Emergency Services Safety & Survival	3	0	3
	Sub-Total Credits	**16**	**6**	**18**
	Total Credits			**33**

Fire Science Electives

Item #	Title	Class Hours	Lab Hours	Credits
FIRE210L	Fire Inspector I	3	0	3
FIRE236L	Fire Investigation I	3	0	3
FIRE238L	Advanced Emergency Medical Technician	4	6	6
FIRE281L	Fire and Emergency Services Administration	3	0	3
	Sub-Total Credits	**13**	**6**	**15**
	Total Credits			**15**

Graphic Design

Graphic Design

Degree Type

Advanced Certificate

Certificate Requirements

Item #	Title	Class Hours	Lab Hours	Credits
INDL100L	College Essentials	1	0	1
GRA138L	History of Design and Illustration	2	2	3
ARTS212L	Introduction to Digital Photography	2	2	3
ARTS280L	Creative Entrepreneurship	3	0	3
GRA280L	Graphic Design Capstone	2	0	3
	GRA271L OR GRA228L			3
	Arts Elective	3	0	3
	Sub-Total Credits	**13**	**4**	**19**
	Total Credits			**19**

Graphic Design

Degree Type
Associate in Science

The Graphic Design program offers a diverse educational experience in all phases of visual communication including; web design, illustration, logo design, identity systems, posters, packaging, publications, animation and many media applications. The program exposes the student to a thorough scope of the design industry standard software, as well as preparing students to create and run their own freelance businesses. A strong combination of theory and hands-on application gives students a variety of valuable, as well as very employable, learning experiences.

Students completing the program will be well-versed in the industry standards and will have a variety of employment options. The designer for digital media includes jobs with publishers, game and video organizations, and various businesses where branding, marketing and advertising materials are needed. Web design development is a multi-faceted specialty with a growing demand. Animation options include gaming industry, video marketing and web advertising, as well as motion components embedded in websites.

Technical Requirements

In order to be successful in the Graphic Design program a student must:

- have command of the English language;
- have a high school diploma or equivalent;
- be able to complete requirements for college level classes;
- be able to understand and follow both written and oral instructions;
- have sufficient vision to make fine visual discriminations, and for reading instructions and course materials;
- have reading comprehension skills sufficient to read and comprehend service literature;
- have communication skills sufficient to prepare required reports;
- have basic understanding of common computer operating systems and procedures;
- have good understanding of measurement systems;
- have the ability to work with others;
- have a good eye for detail/attitude toward quality.

Students who complete the program will:

- demonstrate an understanding of the theory and processes associated with the Graphic Design profession;

- understand and use appropriately the technical vocabulary associated with the Graphic Design profession;
- demonstrate the ability to apply critical thinking skills to successfully problem solve customer needs;
- produce a body of work that serves as a professional portfolio.

First Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL100L	English Composition	4	0	4
GRA125L	Foundations of Design	2	2	3
GRA120L	Design Software Essentials	3	2	3
INDL100L	College Essentials	1	0	1
	Mathematics Elective (3 credits)	3	0	3
	Sub-Total Credits	**13**	**4**	**14**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
GRA134L	Typography and Layout Design	2	2	3
GRA136L	Digital Illustration	2	2	3
	Arts Elective	3	0	3
	Social Science Elective	3	0	3
	English Elective	3	0	3
	Sub-Total Credits	**13**	**4**	**15**

Second Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ARTS212L	Introduction to Digital Photography	2	2	3
GRA231L	Branding and Identity	2	2	3
GRA230L	Front End Website Design	2	2	3
BUS261L	Social Media Marketing	3	0	3
	Science Elective (3 credits)	3	0	3
	Sub-Total Credits	**12**	**6**	**15**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ARTS280L	Creative Entrepreneurship	3	0	3
GRA138L	History of Design and Illustration	2	2	3
GRA228L	Motion Graphics	2	3	3
GRA271L	Screen Process Printing	2	2	3
GRA280L	Graphic Design Capstone	2	0	3
	Sub-Total Credits	**11**	**7**	**15**
	Total Credits			**59**

Foundations of Graphic Design

Degree Type

Certificate

Certificate Requirements

Item #	Title	Class Hours	Lab Hours	Credits
INDL100L	College Essentials	1	0	1
GRA125L	Foundations of Design	2	2	3
GRA120L	Design Software Essentials	3	2	3
GRA230L	Front End Website Design	2	2	3
GRA231L	Branding and Identity	2	2	3
GRA136L	Digital Illustration	2	2	3
GRA134L	Typography and Layout Design	2	2	3
	Sub-Total Credits	**14**	**12**	**19**
	Total Credits			**19**

Human Services

Developmental Disabilities

Degree Type
Certificate

Certificate Requirements

Item #	Title	Class Hours	Lab Hours	Credits
ENGL100L	English Composition	4	0	4
INDL100L	College Essentials	1	0	1
HSV112L	Overview of Developmental Disabilities	3	0	3
HSV113L	Community Inclusion	3	0	3
HSV150L	Introduction to the Practicum	1	0	1
HSV161L	Human Services Practicum I	2	9	5
HSV214L	Meaningful Supports	3	0	3
HSV215L	Families and Support Networks	3	0	3
	HSV120L OR HSV221L OR HSV228L	3	0	3
	Sub-Total Credits	**23**	**9**	**26**
	Total Credits			**26**

Human Services

Degree Type
Associate in Science

In the Human Services Program, students develop skills in the areas of supportive counseling, written and oral communication, assessment, planning, asset identification, and community organization. The Program provides a sound theoretical framework used to understand and assist people with differences including the sociology of deviance, disability, and service systems, while recognizing that methods for understanding and helping others are constantly evolving. Opportunities to apply the skills and knowledge acquired in the classroom to real work situations is provided in Practicum courses that require students to work in community settings under the supervision of professionals in the field.

The Human Services Program prepares students to enter occupations in public and private human services agencies; acquire skills and knowledge related to the student's current human services employment; and pursue further studies leading to advanced academic degrees and special certifications.

A Certificate in Human Services provides students with knowledge, skills, and attitudes required for humane and effective work in entry- level positions. The Associate Degree in Human Services, however, prepares

students for more advanced positions requiring greater autonomy and a broader range of knowledge and skills. Many students completing the Human Services Program continue their education and obtain bachelor and master level degrees in Human Services and allied professions. Students wishing to specialize in Gerontology can elect to enroll in the Human Services degree with a concentration in Gerontology.

Scholarships may be available for students who are currently working in the Human Services profession. Please contact the Program Coordinator to learn more.

Students who complete the program will:

- demonstrate capacities for systematic analysis, skilled communication, imaginative problem-solving, empathic insight, and a strong sense of accountability to the persons on whose behalf they work.
- need to have emotional stability, the ability to exercise sound judgment, accept direction and guidance from a supervisor or faculty coordinator, establish rapport and maintain sensitive interpersonal relationships with employees, customers, and/or clients and their families.
- works closely in the field with individuals of all ages. Many practicum sites and potential employers perform background checks through the New Hampshire Department of Safety as well as through the Police and possibly the FBI.
- submit to an examination of driving record prior to acceptance and background checks in many circumstances will occur. Applicants, who have been in difficulty with the law, depending upon the nature of the problem, may not be employable or even eligible for practical. Applicants need to discuss these issues in an interview with the Department Chairperson prior to admission to the program.

First Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL100L	English Composition	4	0	4
HSV110L	Professional Seminar	3	0	3
HSV120L	Introduction to the Human Services Profession	3	0	3
PSYC125L	Introduction to Psychology	3	0	3
INDL100L	College Essentials	1	0	1
	Mathematics Elective (3 credits)	3	0	3
	Sub-Total Credits	**17**	**0**	**17**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
	ENGL124L or ENGL260L	3	0	3
HSV126L	Learning and Behavior	3	0	3
HSV128L	Individual Assessment and Planning	3	0	3
HSV130L	Gerontology	3	0	3
HSV150L	Introduction to the Practicum	1	0	1
SOSC128L	Chemical Dependency	3	0	3
	Sub-Total Credits	**16**	**0**	**16**

Second Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
HSV161L	Human Services Practicum I	2	9	5
HSV221L	Mental Health and Developmental Disabilities	3	0	3
PSYC126L	Human Growth and Development	3	0	3
SOSC235L	Children, Youth and Families	3	0	3
	Sub-Total Credits	**11**	**9**	**14**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
HSV228L	Political/Social Issues of Human Services	3	0	3
HSV262L	Human Services Practicum II	2	9	5
PHIL227L	Ethical Issues	3	0	3
	Human Services Elective	3	0	3
	Science Elective with Lab	3	2	4
	Sub-Total Credits	**14**	**11**	**18**
	Total Credits			**65**

Human Services

Degree Type

Certificate

Certificate Requirements

Item #	Title	Class Hours	Lab Hours	Credits
ENGL100L	English Composition	4	0	4
HSV120L	Introduction to the Human Services Profession	3	0	3
HSV110L	Professional Seminar	3	0	3
HSV126L	Learning and Behavior	3	0	3
HSV128L	Individual Assessment and Planning	3	0	3
HSV150L	Introduction to the Practicum	1	0	1
HSV161L	Human Services Practicum I	2	9	5
PSYC126L	Human Growth and Development	3	0	3
INDL100L	College Essentials	1	0	1
	HSV130L or HSV221L or SOSC128L	3	0	3
	Sub-Total Credits	**26**	**9**	**29**
	Total Credits			**29**

Human Services Electives

Item #	Title	Class Hours	Lab Hours	Credits
HSV112L	Overview of Developmental Disabilities	3	0	3
HSV113L	Community Inclusion	3	0	3
HSV122L	Supportive Communication Skills	3	0	3
HSV140L	Justice and the Community	3	0	3
HSV145L	Foundations of Conflict Resolution	3	0	3
HSV214L	Meaningful Supports	3	0	3
HSV215L	Families and Support Networks	3	0	3
HSV230L	The Aging Process	3	0	3
	Sub-Total Credits	**24**	**0**	**24**
	Total Credits			**24**

Industrial Automation and Robotics

Industrial Automation and Robotics

Degree Type

Associate in Science

The Industrial Automation and Robotics Degree at Lakes Region Community College consists of 9 major core courses, 5 of which are the core courses of our Computer Information Systems program. Successful students will have the necessary skills to enter the workforce as a Manufacturing Production Technician, Robotics Technician, Process Control Technician, or an Automation Technician. Students will have acquired skills in networking, programming, fabrication, and electronics. Students will also gain the knowledge to design, implement, and troubleshoot automation and robotics in the industry.

Program Outcomes:

- Demonstrate the use of strong mathematical skills.
- Demonstrate a foundation of Computer Information Systems technical skills, knowledge and a basic understanding of computer applications.
- Demonstrate a basic understanding of computer networking operations.
- Demonstrate a basic understanding of various forms of programming languages and how to construct programming logic.
- Demonstrate basic fabrication skills including reading blueprints / engineering drawings, CAD / CAM design, machine tool operations, and CNC machining operations.
- Demonstrate a basic understanding of electricity, electronic components, and electronic circuits.
- Demonstrate skills understanding a variety of microcontrollers (including PLC's) and how to program them with real world logic.
- Demonstrate how to successfully apply automation and robotics to industrial applications including "Lights Out" manufacturing.

First Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL100L	English Composition	4	0	4
MATH211L	College Algebra	4	0	4
CIS136L	Fundamentals of Information Technology	2	2	3
CIS248L	Introduction to Networks	2	2	3
INDL100L	College Essentials	1	0	1
	Sub-Total Credits	**13**	**4**	**15**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
MATH216L	Statistics	4	0	4
IARB116L	Fabrication Technologies	3	2	4
IARB126L	Introduction to Electronics	3	2	4
CIS140L	Introduction to Programming	3	2	4
	Sub-Total Credits	**13**	**6**	**16**

Second Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
MATH235L	Pre-Calculus	4	0	4
CIS215L	Intermediate Programming	3	2	4
IARB236L	Introduction to Microcontrollers	3	2	4
	Science Elective (3 credits)	3	0	3
	Sub-Total Credits	**13**	**4**	**15**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
MATH270L	Calculus I	4	0	4
CIS275L	Object-Oriented Programming - C++	2	2	3
IARB276L	Industrial Robotics and Automation	3	2	4
	Social Science Elective	3	0	3
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Sub-Total Credits	**15**	**4**	**17**
	Total Credits			**63**

Interdisciplinary Studies

Interdisciplinary Studies

Degree Type

Associate in Science

The Interdisciplinary Studies degree is for students seeking to create a self-designed program to meet personal or career goals, complete course work to meet admission requirements for a desired program or wishing to matriculate while awaiting admission to competitive degree programs. The Interdisciplinary Studies experience provides students with an alternative to the existing programs available at Lakes Region Community College. The program provides flexibility by encouraging students to select courses from multiple academic disciplines and allows students design their own educational path. Students in this program are required to consult with an academic advisor to gain approval of their degree plan.

The Interdisciplinary Studies degree offers two options:

Option One: Students selecting this option will work with their academic advisor to create an area of concentration consisting of thirty-six credits. Within the area of concentration, students must earn at least eight (8) credits in 200-level courses. Students awaiting admission to the Nursing program can utilize this option to fulfill admission pre-requisites and/or general education requirements.

Option Two: Students may work with an academic advisor to determine a path with more than one area of focus. This option is for those exploring different career paths as they are undecided on one program. Students will work with their academic advisor to develop an area of interest, which may result in transfer to an established degree program; however, successful completion of an approved exploration can result in the awarding of this degree. Students are required to earn a least eight (8) credits in 200- level courses to earn this degree.

Students are strongly advised to select option one to improve employment opportunities. Since this program allows for exploration of options, it is imperative students formulate and identify their own career and/or transfer goals with the assistance of an assigned academic advisor upon admission. All college policies, including residence credits, apply to this degree.

Students who complete the program will:

- Demonstrate leadership, integrity, responsibility, perseverance, tolerance, and productive teamwork.
- Evaluate information, thoughts, opinions, and ideas rationally, objectively, and consistently.
- Demonstrate scientific thought both quantitatively and qualitatively, recognizing and formulating questions and offering solutions to problems related to science and scientific investigation.
- Perform operations and skill sets related to the personal and professional requirements of the student's desired program goal.

First Year

Fall Semester

Item #	Title	Credits
ENGL100L	English Composition	4
INDL100L	College Essentials	1
CIS133L	Introduction to Information Technology	3
SOSC121L	Ethnography of Work	3
	Program Elective	3
	Sub-Total Credits	**14**

Spring Semester

Item #	Title	Credits
	English Elective	3
	Mathematics Elective (3 credits)	3
	Program Electives (9 Credits)	9
	Sub-Total Credits	**15**

Second Year

Fall Semester

Item #	Title	Credits
	Humanities/Fine Arts/Foreign Language Elective	3
	Science Elective (4 credits)	4
	Program Electives (9 Credits)	9
	Sub-Total Credits	**16**

Spring Semester

Item #	Title	Credits
	IDS290L OR IDS291L	3
	Program Electives (12 Credits)	12
	Sub-Total Credits	**15**

Total Credits	**60**

Liberal Arts

Liberal Arts

Degree Type
Associate in Arts

This Associate in Arts degree program offers the equivalent of the first two years in a four-year Bachelor of Arts or Bachelor of Science program. Upon completion, students have an academic background sufficient to transfer into a baccalaureate degree program. The program also provides a foundation for the acquisition of skills and abilities essential for jobs requiring a broader base of arts and sciences.

Students who complete the program will:

- communicate effectively both written and orally.
- solve problems using critical, creative, and scientific reasoning;
- Critically employ quantitative methods to organize, analyze, and interpret data toward the express goals of informing themselves and solving problems;
- demonstrate scientific thought both quantitatively and qualitatively by learning to recognize and formulate questions for analysis of human or technical problems;
- interpret facts and evaluate issues from multiple perspectives;
- demonstrate knowledge of diverse cultures and subcultures, with an eye toward broadening their global and historical perspectives;
- reflect on their interactions with other individuals and their communities, as well as their role in a global society
- use technology to retrieve, process, and communicate information

In this flexible program, students select courses based on the requirements of the four-year college to which they plan to transfer. Working with an advisor, students design a program that best meets their future plans. It is recommended that students identify the college to which they plan to transfer and discuss a transfer plan with their advisor as soon as possible.

The following courses satisfy Liberal Arts requirements:

English	Courses with ENGL prefix and HUMA160L
Humanities	ENGL235L, ENGL224L, ENGL225L, ENGL235L, ENGL236L ENGL246L, ENGL251L, ENGL256L, ENGL257L, ENGL299L, and courses with ARTS, FREN, HIST, HUMA, PHIL and SPAN prefix
Literature	ENGL223L, ENGL234L, ENGL225L, ENGL246L, ENGL251L, ENGL256L, ENGL257L, ENGL299L, and HUMA160L
Mathematics	Courses with MATH prefix
Science	Courses with BIOL, CHEM, ENVS, GEOL, PHYS prefix
Social Science	HUMA130L, HUMA131L, HUMA250L, HUMA252L, and courses with HIST, PHIL, POLS, PSYC and SOSC prefix

First Year

Fall Semester

Item #	Title	Credits
ENGL100L	English Composition	4
INDL100L	College Essentials	1
	Mathematics Elective (3 credits)	3
	Science Elective w/lab	3
	Social Science Elective (SOSC121L recommended)	3
	Sub-Total Credits	**14**

Spring Semester

Item #	Title	Credits
	English Elective	3
	Humanities/Fine Arts/Foreign Language Elective	3
	Mathematics Elective (3 credits)	3
	Science Elective with Lab	4
	Social Science Elective	3
	Sub-Total Credits	**16**

Second Year

Fall Semester

Item #	Title	Credits
	Humanities/Fine Arts/Foreign Language Elective	3
	Liberal Arts Elective	3
	Liberal Arts Elective	3
	Open Elective	3
	Social Science Elective	3
	Sub-Total Credits	**15**

Spring Semester

Students must have at least 12 credits in Liberal Arts electives, which may be satisfied by three 4-credit courses if needed to ensure minimum credits for degree requirements.

Item #	Title	Credits
	Humanities/Fine Arts/Foreign Language Elective	3
	Liberal Arts Elective	3
	Liberal Arts Elective	3
	Open Elective	3
	Open Elective	3
	Sub-Total Credits	**15**

Open Elective: Students must have at least 12 credits in Liberal Arts electives, which may be satisfied by three 4-credit courses if needed to ensure minimum credits for degree requirements.

	Total Credits	**60**

Marine Technology

Please Note: The Marine Technology Associate Degree and Diagnostic Repair Certificate are currently in a teach-out phase and LRCC no longer is accepting students into these programs.

The Marine Technology program concentrates on recreational marine equipment, including outboards, inboards, inboard/outboards, engines, and diagnostic equipment. Students become knowledgeable in the maintenance, repair of internal combustion engines, and drive systems through classroom and lab experience.

LRCC offers two certificates and two-degree pathways. The Marine Maintenance certificate is for those who are looking for basic maintenance training in order to enter the workforce as soon as possible. The Marine Diagnostic and Repair certificate is for those who seek the career of a marine technician. It includes all of the marine maintenance courses as well as the diagnostic and repair courses. Should you seek a degree, LRCC offers a Marine Business degree for those seeking a technical education accompanied by a business perspective. This pathway is best suited for an individual looking for a management position or possible

ownership of a marina. The Marine Technical degree is for those who want the most concentrated marine engine repair training available. These students will earn both certificates, a degree and become factory certified with Mercury Marine through our Advanced Marine Systems course.

There are opportunities for marine technicians in coastal and lakeside communities. Graduates will find employment as inboard drive, or outboard technicians, service managers, parts management or even business owners. There are many other opportunities in the recreational off-road vehicle market, such as motorcycle, watercraft and snowmobile technician. Those recreational products are closely related in design and concept; skill sets would be easily transferable.

Marine Maintenance

Degree Type
Certificate

Certificate Requirements

Item #	Title	Class Hours	Lab Hours	Credits
INDL100L	College Essentials	1	0	1
MAR121L	Marine Maintenance and Fundamentals	4	3	5
MAR126L	Outboard Engine Maintenance	3	6	5
MAR127L	Marine Electrical Systems	3	6	5
	Sub-Total Credits	**11**	**15**	**16**
	Total Credits			**16**

Nursing

Nursing

Degree Type
Associate in Science

The Nursing Program offers the opportunity to earn an Associate of Science Degree in Nursing, in preparation for the licensing exam (NCLEX-RN) to become a Registered Nurse. This Nursing program has the full approval of the New Hampshire Board of Nursing. Access to the New Hampshire Board of Nursing's website is found at www.state.nh.us/nursing.

The associate degree nursing program at Lakes Region Community College meets the state education requirements for a Registered Nurse license in the state of New Hampshire. Lakes Region Community College has not determined if the associate degree nursing program at Lakes Region Community College meets the state education requirements in any other state, any U.S. Territory, or the District of Columbia. Contact the state regulatory agency for nursing in any other state for which this information is needed.

The Associate Degree Nursing Program is approved by the New Hampshire Board of Nursing (NHBON). Upon satisfactory completion of the program, the graduate is eligible to apply to the New Hampshire Board of Nursing (NHBON) and Pearson VUE NCLEX Candidate Services for the National Council Licensing Examination for Registered Nurses (NCLEX-RN). The New Hampshire Board of Nursing's licensing regulations may restrict candidates who have been involved in civil or criminal legal proceedings. Questions about licensing restrictions should be addressed to the New Hampshire Board of Nursing, 7 Eagle S, Concord, NH 03301.

The Associate Degree Nursing Program at Lakes Region Community College located in Laconia, New Hampshire is accredited by the:
Accreditation Commission for Education in Nursing (ACEN)
3390 Peachtree Road NE, Suite 1400 Atlanta, GA 30326
(404) 975-5000 www.acenursing.org.

The most recent accreditation decision made by the ACEN Board of Commissioners for the Associate Degree Nursing Program to continue LRCC's accreditation can located and viewed for public information disclosure by ACEN at http://www.acenursing.us/accreditedprograms/programSearch.htm

Program Mission

The nursing department accepts and aligns itself with the mission of Lakes Region Community College. The mission of the Lakes Region Community College Associate Degree Nursing Program is to prepare compassionate health care professionals whose practice is holistic, scientifically based and technically competent. The mission is to provide all students with a quality education that affords each graduate the opportunity to enter the healthcare profession in their community and have the ability to pursue a Bachelor of Science degree in Nursing.

End-of-Program Student Learning Outcomes

Graduates of the LRCC nursing program will be prepared to achieve the following Learning Outcomes:

1. Deliver safe, legal, and ethical patient-centered care to the culturally and developmentally diverse patients using the nursing process.
2. Practice collaboratively throughout the healthcare system on a multi-professional healthcare team to achieve shared goals using principles of communication, leadership, and management.
3. Support a culture of continuous evidence-based quality improvement by using data to monitor outcomes and identify and report actual or potential problems.
4. Use health care system resources and technology to coordinate and deliver individual and/or population-focused care that is safe, effective, and efficient.
5. Demonstrate professional accountability using legal, ethical, and regulatory guidelines.
6. Participate in activities that contribute to life-long learning.

The New Hampshire State Board of Nursing may restrict licensing of candidates who have been involved in civil or criminal legal action. Address questions about licensing restrictions to the Board of Nursing. Satisfactory completion of the A.S. in Nursing does not guarantee RN Licensure.

Students admitted into the Nursing Program must achieve a minimum grade of C in all pre-requisite and co-requisite courses, and B- in all nursing courses.

Graduates of the program are encouraged to pursue a Bachelor and/or Master of Science in Nursing. Graduates of the LRCC nursing program have the opportunity to pursue further nursing education through the RN to BSN pathway with Southern New Hampshire University (SNHU) and Colby Sawyer College. Students planning to continue their education toward the bachelor or Master of Science in Nursing should plan their program of study with an academic advisor from the Department of Nursing.

Admission Requirements for Level I applicants:

- Meet all general college admissions requirements
- Provide Documentation of completion of high school or college algebra, chemistry with lab and biology with lab classes all with a minimum grade of "C" or higher
- Submit a completed college application for admission.
- Early notification applicant's deadline is December 15. If the applicant is not admitted through the early action process, their application will be reconsidered with the other regular decision applications after the February 1 application deadline.
- Applications completed after February 1 may only be considered on a space available basis, if the program is not at capacity. Applications are considered complete only when the LRCC Admissions Office receives all required documentation prior to the above deadlines.
- Complete the ATI Test of Essential Academic Skills (TEAS)* with a Total Score of 66% or higher
    - The TEAS may be taken four times in one year starting with the date of the first exam
    - Each attempt must be at least four weeks apart

    - TEAS scores are valid for two years
    - Registration and payment for the TEAS is done at https://www.atitesting.com/
- Submit a 300 to 500-word essay to the admissions office. Directions for completing the essay can be found on the LRCC website.
- All science courses required to complete a degree in Nursing must be taken in person. Online science courses will not be accepted.
- Applicants who have completed all of the admission requirements are strongly encouraged to meet with their nursing advisor or the nursing department chair.

Nursing courses must be completed within three years from the date of entry. Students who leave the program in good standing may be re-admitted only once.

Students may be required to do an evening clinical rotation depending on clinical site and/or clinical faculty availability

All students accepted into the Nursing Program will:

- Attend a designated summer orientation session
- Obtain and maintain current Basic Life Support for the Professional Rescuer certification
- Pass a criminal background check
- Complete a Department of Health and Human Services NH Child Abuse Central Registry Name Search
- Submit proof of immunizations
- Submit results of a two-step Tuberculosis (TB) test
- Submit proof of current health insurance
- Submit a completed Health Exam form
- Pass a drug screen
- Purchase the required uniform.
- Make up all clinical and class hours missed for any reason at the discretion of the faculty

Transfer into the LRCC Nursing Program

To qualify for acceptance into the Nursing Program a prospective transfer student must meet the following criteria:

- All nursing courses must have been completed with a grade of B- or better.
- All required science courses must have been completed within the 5 years of starting the nursing program with a grade of C or better.
- If any required science courses have been completed greater than 5 years before entry into the nursing program, applicants can must re-take the course.
- A science course that is being repeated must be completed by the end of the semester in which it is designated as a co-requisite.
- All pre-requisite and co-requisite courses must be completed with a grade of C or better.
- The program hours for each nursing course being transferred in to LRCC must meet the minimum number of required program hours determined by the LRCC nursing program.

Transfer into the LRCC Nursing Program is available on a space available basis. Transfer credit will be based on course content, program hours, and credits earned. Prior to applying for transfer into the Nursing Program, potential transfer students must first meet with the Chair of the Nursing department. Based on the results of the meeting and/or additional review by the Chair, students may then be advised to apply for admission and for what semester.

It is the applicant's responsibility to have official transcripts from all previously attended high school and college institutions sent to the LRCC Admissions Office as soon as possible. A student who has been accepted for transfer into the Nursing Program must complete the program within 2 years. A student who has transferred into the Nursing Program and does not complete course work within 2 years may not reapply for readmission to the Nursing Program.

If during the application/admissions timeframe, more qualified students applying to transfer into the Nursing Program, than there is available space, the final decision regarding acceptance into the program will be made by the Nursing Faculty. A student who has exited from another nursing program for unsafe practice or unprofessional behavior is not eligible for transfer into the Nursing program at LRCC.

LPN to ADN Pathway

A Licensed Practical Nurse (LPN) may apply to the Lakes Region Community College nursing program to earn an Associate degree in nursing. Prior to applying to the Nursing Program, an LPN applicant must first meet with the Chair of the Nursing department. Based on the results of the meeting and/or additional review by the Chair, the applicant may then be advised to apply for admission. To apply to the nursing program, the LPN applicant must meet the following criteria:

- Meet all pre-requisites for the RN program excluding completion of the TEAS exam.
- All nursing courses must have been completed with a grade of B- or better.
- Meet all the co-requisite requirements for the first semester of the nursing program.
- Hold an unencumbered New Hampshire LPN license
- Complete the NLN NACE I exam with a minimum grade of 74%
- Meet all admission criteria by December 15 for admission in to the spring semester.

NACE I test scores are valid for a period of two years. Contact the National League for Nursing Testing Services for information about the NACE I exam

LPN applicants who successfully meet all of the admission requirements may be eligible for admission into the RN program beginning the spring semester of Level 1 on a space available basis.

Technical Standards

The following technical standards are to guide students to make an informed decision regarding a career in nursing. These standards are required to complete the nursing curriculum and to enter nursing practice as a Registered Nurse. The skills are as follows:

Auditory: Each student must possess auditory ability to monitor, and assess health needs, including (but not limited to)

- hear and interpret information a client is communicating verbally
- hear auscultory sounds using a stethoscope
- hear auditory signals from equipment
- communicate over the telephone

Visual: Each student must possess visual ability sufficient for observation, and assessment necessary to provide nursing care, including (but not limited to)

- observe drainage on dressings and drainage of body fluids
- note fluid levels in supplies and equipment
- read gauges that monitor clients
- see to administer treatments
- observe changes in client skin color
- observe client's behavior and movement

Tactile: Each student must possess tactile ability sufficient to perform a physical assessment, and procedures on clients, not limited to)

- perform palpation, and other functions necessary for physical exam
- assess texture, shape, size, temperature, and vibration
- perform therapeutic procedures

- collect specimens

Sense of Smell: It is desirable that each student possess a sense of smell acute enough to detect strong odors that may indicate a change in a client's condition, including (but not limited to);

- a purulent wound
- ketones on a person's breath
- body fluids that have a strong odor
- smoke or other indicator of danger

Communication: Each student must be able to communicate in English effectively with clients, families, and other health care professionals. This includes expressive, and receptive modes of verbal, nonverbal, and written communication, including (but not limited to);

- explain procedures, and treatments
- initiate health education
- document nursing assessment, planning, implementation, and evaluation of nurse and client actions, and responses
- read client documentation, and medical literature
- give an accurate report of client information to other health care providers

Motor Function: Each student must have sufficient motor function, neuromuscular strength, and coordination to effectively perform nursing functions, including (but not limited to)

- transfer clients to/from wheelchair to bed, and bed to/from stretcher
- gather assessment data by palpation, auscultation and percussion
- manipulate instruments to perform physical assessment
- apply pressure (to stop bleeding). Gross and Fine Motor Coordination: Each student must have sufficient
- gross and fine motor coordination to
- move around in the health care environment
- perform treatments, and procedures
- calibrate, and use equipment
- navigate stairs or other client settings

Stamina: Each student must have sufficient stamina to sit, stand, and move within the classrooms; skills lab, nursing units, operating room, and community settings, for periods of time as long as eight hours at a time. Each student must be able to lift 20 lbs.

Behavioral: Each student must possess the ability to establish, and maintain, appropriate professional relationships, including the following factors

- act ethically
- exercise sound clinical judgment
- be compassionate
- develop mature, and effective relationships with clients
- complete all responsibilities required for client care

Emotional Health: Each student must possess the emotional health required for full utilization of his/her intellectual abilities, including (but not limited to)

- prioritize competing demands
- function in stressful situations
- tolerate physically taxing workloads
- adjust to changing circumstances

First Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
BIOL145L	Anatomy & Physiology I	3	3	4
ENGL100L	English Composition	4	0	4
INDL100L	College Essentials	1	0	1
NURS132L	Nursing I	5	4	9
	Sub-Total Credits	**13**	**7**	**18**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
BIOL146L	Anatomy & Physiology II	3	3	4
NURS142L	Nursing II	3	5	10
PSYC125L	Introduction to Psychology	3	0	3
PSYC126L	Human Growth and Development	3	0	3
	Sub-Total Credits	**12**	**8**	**20**

Second Year

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
BIOL241L	Microbiology	3	3	4
NURS222L	Nursing III	5	4	9
PHIL227L	Ethical Issues	3	0	3
	Sub-Total Credits	**11**	**7**	**16**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
NURS232L	Nursing IV	6	1.5	10
	Mathematics Elective (MATH216L Statistics recommended)	3	0	3
	English Elective	3	0	3
	Sub-Total Credits	**12**	**1.5**	**16**
	Total Credits			**70**

Paramedic

Paramedic

Degree Type
Certificate

The Paramedic certificate program is designed for both students new to the field of Emergency Medicine and current emergency responders seeking to further their education. Successful completion of the program will prepare students as entry-level Paramedics eligible to sit for the National Registry of Emergency Medical Technicians Paramedic certification exam. Students will be educated on system structure and operations, therapeutic communications, pharmacology, anatomy and physiology, assessment and treatment of medical illnesses and traumatic injuries as well as multi-system trauma, airway management, public health, special populations, and critical care.

The curriculum complies with the National Emergency Medical Service Education Standards and is designed to meet the standards of the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

The goal of the Paramedic Program is, "To prepare competent entry-level Paramedics in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains with or without exit points at the Advanced Emergency Medical Technician and/or Emergency Medical Technician, and or Emergency Medical Responder Levels

The Paramedic Certificate track will have several stackable certificates that will include, Advanced Cardiac Life Support certification, Pediatric Advanced Life Support certification, and Prehospital Trauma Life Support certification.

Program Objectives:

- Introduce students to paramedicine and the healthcare system.
- Provide students with foundational knowledge expected of an entry level paramedic including the emergency medical services system, patient assessment, emergency care of the trauma and medical patient, special populations, and public health.

Students who complete the program will:

- Demonstrate the ability to comprehend, apply, and evaluate information expected of an entry level paramedic.
- Demonstrate the ability to think critically and thoroughly assess a patient utilizing various diagnostic tools and procedures.
- Demonstrate the ability to communicate verbally and in writing and the ability to interact effectively and professionally with patients, family, clinical, and non-clinical persons in various settings.
- Demonstrate personal responsibility, professionalism, ethical judgement, and collaboration.

Certificate Requirements

Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
INDL100L	College Essentials	1	0	1
PAMD110L	Paramedic I	8	4	12
	Sub-Total Credits	**9**	**4**	**13**

Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
PAMD120L	Paramedic II	5	4	11
PAMD210L	Paramedic III	0	0	5
	Sub-Total Credits	**5**	**4**	**16**

Summer Semester

Item #	Title	Class Hours	Lab Hours	Credits
PAMD220L	Paramedic IV	0	1	8
	Sub-Total Credits	**0**	**1**	**8**
	Total Credits			**37**

Courses

Accounting

ACCT131L : Accounting I

An introduction to accounting as the language of business. The student will be introduced to the procedures necessary to record, classify, and summarize basic business transactions. The course will cover the accounting cycle for service and merchandising sole proprietorships, including: journalizing transactions in general and special journals, recording adjusting and closing entries, and preparing worksheets and financial statements. The course will also cover banking and payroll procedures.
Credits 3
Lab Hours 0
Class Hours 3

ACCT132L : Accounting II

A more in-depth study of accounting procedures and concepts. The course closely examines balance sheet accounts, such as accounts receivable, notes receivable and payable, inventory, property plant and equipment and long-term debt. Different structures of equity are examined through the study of partnership and corporate forms of business. Financial statement analysis and the statement of cash flows are introduced. General accounting principles are introduced and applications are discussed throughout the course.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisites
ACCT131L with a grade of C or better or Permission of Department Chair

ACCT231L : Cost Accounting

Accounting for transactions and summarizing data particular to manufacturing and service environments. The course will examine in detail the three elements of cost: materials, labor and overhead, in both the job order and process cost systems. It will also cover standard cost systems, including variance analysis. The student will be introduced to cost behavior patterns and apply them to cost analysis for decision making.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisite Courses
ACCT132L: Accounting II

ACCT235L : Managerial Accounting

The study of the use of accounting information for management decision-making purposes in the manufacturing and service environments. Cost behavior and classification, as well as cost-volume-profit analysis, differential cost analysis and absorption vs. variable costing principles, will be applied to cost and volume control, pricing, and other management decisions. The student will learn to develop budgets and evaluate performance internally. Special considerations of decentralized operations and capital investment decisions will be studied. The student will be exposed to current trends in the global business environment, including the principles of activity-based costing, Just-in-Time manufacturing, and the theory of constraints.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisite Courses
ACCT132L: Accounting II

ACCT251L : Federal Taxes

A study of Federal Income Tax regulations and reporting. The course will cover individual returns, including filing requirements and status, rules of dependency, income inclusions and exclusions, expenses, deductions and credits, capital gains and losses. Special attention will be paid to depreciation. The partnership and corporate returns will be introduced. Topics relating to tax administration and tax planning will also be covered.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisite Courses
ACCT132L: Accounting II

ACCT273L : Introduction to Computerized Accounting
This course will introduce students to computerized accounting systems using QuickBooks Accountant and MS Excel. The accounting procedures done manually in accounting I will now be performed on the computer using accounting software that is currently being used in business and industry. Students will set up and perform routine tasks such as recording business transactions, controlling inventory, processing sales, maintaining fixed asset and depreciation schedules, and preparing payroll. Additional procedures students will perform include setting up a chart of accounts, summarizing data, generating financial reports, and banking transactions.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisite Courses
ACCT131L: Accounting I

Advanced Manufacturing

MANF120L : Machine Tool Math
This focused class develops the skills of students in areas of mathematics relevant to modern manufacturing. An emphasis will be placed on practical applications as found in machining. The topics include usage of fractions and decimals, conversion between units, interpreting and using percentages, usage of tolerances, interpretation and usage of formulas and proportions, and the practical application of geometry and trigonometry in interpreting and using drawings. The usage of scientific calculators will be integrated into the course content.
Credits 3
Lab Hours 0
Class Hours 3

MANF131L : Blueprint Reading
Students will learn the fundamentals of blueprint reading including multi-view drawings and how to sketch one, threads, title blocks, ECOs, tolerance blocks, Rectangular and Geometric Tolerance. Students need a basic knowledge in drafting/design, machine processes and procedures.
Credits 3
Lab Hours 0
Class Hours 3

MANF132L : Solid Modeling
This class will be using the solid modeling software, SOLIDWORKS. The class will focus on being certifiable for the SOLIDWORKS CSWA (Certified SOLIDWORKS Associate) test. The SOLIDWORKS Certification could make you a more proficient modeler or help you get a job in, for example, drafting/design, tool making, or CNC programming. The class will focus on building solid models (parts and assembly models) utilizing extruded, revolved, lofts and swept additive and subtractive features along with fillets chamfers, patterns and mirror features. Materials will be added to these models and Mass Properties will be explored. Models and drawings will be used using both ANSI and ISO standards. The course will be slightly fast paced to squeeze in all that is required for the certification. The class will be instructor lead along with working on your own.
Credits 3
Lab Hours 3
Class Hours 2
Prerequisite Courses
MANF131L: Blueprint Reading

MANF141L : Independent Study in Machine Processes
This course will be a directed study in Machine Processes. The student will engage in learning about a topic of special interest at the direction of the instructor.
Credits 1
Lab Hours 0
Class Hours 1
Prerequisites
Approval of advisor and department chair

MANF142L : Machine Processes
This course will present the theory of machine processes through and lessons covering traditional, manually operated machine tools such as band saws, drill presses, milling machines and lathes. Topics covered are selecting the machine stock, proper squaring a block on a milling machine, basic layout, drilling, tapping reaming, countersinking, counter boring, chamfering, machine set-up, grooving, and threading. Also, students will learn about standard precision measuring tools such as but not limited to micrometers, dial calipers, and Vernier scales with an introduction to gauging, tolerance and dimensioning. Machine tool and shop safety will be covered throughout the course.
Credits 3
Lab Hours 3
Class Hours 2

MANF145L : Manufacturing Processes

This course will cover a qualitative and quantitative study of manufacturing processes. Fundamental principles of value-added processing of materials into useable forms for the customer will be covered. Topics will include material properties and traditional and non-traditional manufacturing processes with an emphasis on process selection for optimum design with quality, strength and economic evaluations.
Credits 3
Lab Hours 0
Class Hours 3

MANF151L : CNC Machines I

Students will be introduced to the fundamentals of Computer Numerical Controlled (CNC) Milling machines and their programming. Covered in this course is the basic operation of CNC machines with topics such as safety, simulation, tooling with tool selection, and machine zeroing. Students will be exposed to absolute and incremental positioning, circular interpolation, program interpolation, and cycle pausing. CNC machine safety will be stressed throughout this course.
Credits 2
Lab Hours 0
Class Hours 2

MANF152L : CNC Machines I Lab

This course will immerse students in CNC I by their actual demonstrated use of CNC machining centers and turning centers. Student will demonstrate proper safety practices while setting up and programming various operations such as: linier and circular interpolation, canned cycles, and sub programming.
Credits 2
Lab Hours 6
Class Hours 0

MANF211L : CNC Machines II

In this course students will expand on knowledge from CNC Machines I as well as be introduced to Computer Aided Manufacturing (CAM). CNC Machines topics will include machine speeds and feeds, feed rate, and cycle time optimization. Students will also learn alternative drilling cycles, subprograms, cutter compensation, and scaling/ mirroring. CNC Machine safety will be stressed throughout this course. Students will also be introduced to CAD/CAM with topics to include part geometry, CAM-Mill processes, contouring, cycle time estimation, tool selection, material selection, cutter compensation, parameter pages, contour applications, roughing, finishing and tool paths.
Credits 1
Lab Hours 0
Class Hours 1
Prerequisite Courses
MANF151L: CNC Machines I

MANF212L : CNC Machines II Lab

In this course students will be immersed in CNC II using what they have learned to demonstrate safe machining practices while using the Renishaw tool offset probe to find work offsets, tool heights, digitizing, and inspection. Students will also be able to demonstrate the proper use of CAD/CAM to program and manufacture parts from CAD files, while following safe machining practices.
Credits 2
Lab Hours 6
Class Hours 0
Prerequisite Courses
MANF142L: Machine Processes

MANF220L : Properties of Materials

This course introduces the student to the processes and materials used in modern manufacturing, with an emphasis on steels and nonferrous metallic alloys. After establishing the sources of stock materials and the means to modify them to adjust material properties, the selection of why certain materials is appropriate for different applications is covered. The understanding of manufacturing processes is central to the course, including machine tooling, hot working, cold working, casting, joining processes, and powder metallurgy. In addition, the processes required to manufacture plastics and composites will also be incorporated.
Credits 4
Lab Hours 2
Class Hours 3
Prerequisites
MATH 137L with a grade of C or better and PHYS125L

MANF230L : CAD/CAM

This course covers Computer-Aided Design (CAD) and Computer-Aided Manufacturing (CAM). The course includes demonstrations as well as hands-on of CAD/CAM software and hardware. An emphasis is placed on geometry creation and editing functions, process planning, proper cutter selection, speed and feed selection, and tool path generation along with post processing to CNC machines. Students need a basic knowledge in drafting/design, machine processes and procedures, and computer operating systems (MS Windows).
Credits 3
Lab Hours 3
Class Hours 2

MANF240L : Lean Manufacturing

This course will cover all of the aspects of Lean Manufacturing. Topics will include line balancing, batching versus single piece flow, standard work, inventory control models, value stream mapping, 5-S, and waste elimination. Students will learn tools for identifying and reducing waste such as fishbone modeling, brainstorming techniques, "spaghetti" mapping, and observation techniques. An emphasis on quality control and people empowerment will be stressed throughout the course.
Credits 3
Lab Hours 0
Class Hours 3

MANF250L : Advanced CNC Machine Processes

This course expands on the machining skills presented in the CNC I & II courses. This course will include 3-D and solid modeling, programming, machine setup, and operating procedures. Tool selection, quality measurement/control, and operator maintenance are also topics covered.
Credits 4
Lab Hours 6
Class Hours 2

MANF270L : Advanced Manufacturing Capstone

This course provides the vehicle for students to demonstrate overall competency in advanced manufacturing and in the specific operations in which they have chosen to concentrate. Under the supervision of a faculty advisor, working individually or as part of a team, the student will select and successfully carry out a major project which pertains directly to advanced manufacturing.
Credits 3
Lab Hours 0
Class Hours 3

MANF280L : Advanced Manufacturing Internship

This course provides the opportunity for the student to utilize learned course competencies in a real-life setting. A supplemental laboratory experience on an extensive array of equipment and processes may be provided. Resume, cover letter, weekly journal, and employer evaluation are required. Student needs to work a minimum of 300 hours in a manufacturing job related environment. Cumulative GPA2.0 minimum required.
Credits 3
Lab Hours 9
Class Hours 0

Arts

ARTS111L : Introduction to Drawing

This course is an introduction to drawing from observation. We will cover several "tools for seeing" or ways of translating the 3-Dimensional world onto our 2-Dimensional page. We will work on ways to overcome our preconceived ideas of what something looks like and to truly see it. Tools to be covered are sighting and measuring, negative space, summarizing value and 1-point perspective. This class will work primarily in black in white and from observation of still lives and the landscape. Drawing as a mode of self-expression will also be explored throughout the course.
Credits 3
Lab Hours 3
Class Hours 2

ARTS116L : Drawing: Personal Voice

The projects in this course are aimed at helping the student find their "personal" drawing Voice. They will explore what they are using art to say and how they are saying it. An introduction to color theory is covered and a variety of both black, white and color drawing media are used. Assignments involve synthesizing from observational drawing and imagined drawing, working in diptychs and series, working from written prompts as well as process-oriented prompts. Assignments encourage both observational and abstract work.
Credits 3
Lab Hours 3
Class Hours 2
Prerequisites
ARTS111L or Permission of Instructor

ARTS120L : 2-D Design
This course offers an introduction to the basic two-dimensional design concepts of color, composition, and the organization of pictorial space. A variety of design media will be explored which includes drawing, painting, and collage.
Credits 3
Lab Hours 3
Class Hours 2

ARTS125L : 3-D Design
This course offers an introduction to three-dimensional concepts and sculptural materials that are involved in the creation and appreciation of functional and nonfunctional sculptural form. A variety of sculptural media, materials and techniques will be explored including clay, plaster, wire, cardboard, and mixed media.
Credits 3
Lab Hours 3
Class Hours 2

ARTS131L : Art History: Prehistoric to Gothic
This course covers the principal movements and trends in painting, sculpture, and architecture from the prehistoric period through the Gothic period. The course will utilize digital images, interactive 3D reproductions, short films, historical texts, and a course textbook as well as opportunities for student reflection.
Credits 3
Lab Hours 0
Class Hours 3

ARTS136L : Art History: Renaissance to Modernism
This course covers the principal movements and trends in painting, sculpture, and architecture from the Renaissance through Modernism. The course will utilize digital images, interactive 3D reproductions, short films, historical texts and a course textbook as well as opportunities for student reflection.
Credits 3
Lab Hours 0
Class Hours 3

ARTS140L : Exploration in the Visual Arts
This course is designed to provide an overview of the visual arts, its traditions, history, and techniques as part of our general education offerings. This course will fulfill a Liberal Arts elective requirement but will not be appropriate for students pursuing the Associate Degree in Fine Arts.
Credits 3
Lab Hours 0
Class Hours 3

ARTS145L : The Clay Experience I
This course offers an overview of the basic techniques and processes of working with clay. Topics include hand-building and wheel-throwing methods, glazes, and firing. This course will fulfill a humanities or liberal arts requirement for all majors.
Credits 3
Lab Hours 3
Class Hours 2

ARTS150L : Introduction to Art Education
This course offers an introduction to the art teaching profession. The course also provides an overview of issues concerning the theory and practice of art education, as well as possible career paths in art education. Topics include but are not limited to: history of art education in American schools; theory and practice in art education; child development in art; life in the art classroom; and career paths in art education. Twenty hours of classroom observation in an art(s) program is required.
Credits 3
Lab Hours 0
Class Hours 3

ARTS163L : Screen Printing
This course introduces the student to screen printing techniques. Areas of emphasis include: types of frames, terminology, fabric selection, stencil preparation, fabric stretching techniques, screen printing inks, and squeegee selection. Projects are selected and designed by each student. Classroom theory will be supported by lab demonstrations. Credit will not be given for more than one of the following courses: ARTS163L or GRA271L.
Credits 3
Lab Hours 2
Class Hours 2

ARTS212L : Introduction to Digital Photography
This course is designed for students with minimal experience in photography. Students will learn the basics of photographic techniques, both technical and artistic. Lighting, camera settings, simple Photoshop processes, and composition will be covered, as well as moving images from the camera to computer, printer, web, or presentation. Students must provide their own camera with minimum requirements: point and shoot camera or equivalent, built-in flash, zoom lens, different scene modes, and 2-4g memory card. Optional equipment: tripod.
Credits 3
Lab Hours 2
Class Hours 2

ARTS213L : Advanced Digital Photography

This course builds on skills covered in ARTS212L and is the choice for the more advanced student. Technical skills using a wide variety of camera settings are covered, as are more advanced Photoshop techniques. Students will develop a keener artistic eye, greater creative capacity, and a broader range of photographic skills, such as nighttime-exposure photographs. Students must provide their own camera with minimum requirements: fixed lens (FLO DSLR camera) with light metering ability, built-in flash, auto focus system, and manual mode. Optional equipment includes: tripod, zoom or multiple lenses, external flash, and multiple storage cards.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisites
ARTS212L or Permission of Instructor

ARTS216L : Drawing: Figure in Value

This is an introductory level figure drawing course. Students will draw primarily from the nude model. They will learn to draw the model from observation using line and value. Students will work primarily in black and white however there will also be opportunity to use a value range within a limited color palette. A variety of wet and dry drawing media will be explored.
Credits 3
Lab Hours 3
Class Hours 2
Prerequisites
ARTS111L or Permission of Instructor

ARTS221L : Drawing: Figure in Color

This course builds from the basic figure drawing covered in Drawing: Figure in Value. Students will work primarily in color. Using color in an observational and expressive manner. A variety of wet and dry drawing media will be explored.
Credits 3
Lab Hours 3
Class Hours 2
Prerequisites
ARTS216L or Permission of Instructor

ARTS235L : 20th Century Art

This course provides an introductory survey of the styles and conventions of the principle artistic movements and trends of the late 19th through 20th century.
Credits 3
Lab Hours 0
Class Hours 3

ARTS240L : Painting I

This course offers an introduction to the basic principles, media, and techniques of painting in oils and acrylics. The development of understanding color mixing, exploration of form, content and space is emphasized while working from abstract and realistic subject matters. The course synthesizes composition, creative thought, and critical thinking.
Credits 3
Lab Hours 3
Class Hours 2

ARTS245L : The Clay Experience II

This course offers a continuation and expansion of concepts and skills established in ARTS145L. This course will explore both functional and non-functional forms in clay, introducing the students to more sculptural and conceptual methods of producing clay objects and to thinking of clay as a personally expressive medium.
Credits 3
Lab Hours 3
Class Hours 2
Prerequisites
ARTS145L or Permission of Instructor

ARTS251L : Issues in Contemporary Art

This course offers an exploration of current topics, trends, issues, and artists in the contemporary art world. This course will be taught in a seminar format, supplemented with slides, film and video, computer presentations, and visiting artists. When possible, field trips to area galleries, museums, exhibitions, arts events, or studios may be taken.
Credits 1
Lab Hours 0
Class Hours 1

ARTS255L : Printmaking

An introductory studio course in the methods and materials of printmaking, building on principles and concepts of design established in 2-D Design. A variety of printmaking techniques will be introduced including woodblock printing, etching, linocut-printing, embossing and collagraph.
Credits 3
Lab Hours 3
Class Hours 2
Prerequisites
ARTS111L or ARTS120L

ARTS266L : Portfolio

In this course students create a personal website of their work. They learn to photograph their work and to edit the photos to upload to their website. They develop an artist statement. They also learn and practice the process of matting and hanging their work.
Credits 2
Lab Hours 0
Class Hours 2

ARTS270L : Painting II

Further development of skills introduced in Painting I. Primary focus is on observational painting from landscape, still-life, and an introduction to painting the figure. The course will include analysis of the painting styles of the past and emphasis upon the role of the artist in contemporary society.
Credits 3
Lab Hours 3
Class Hours 2
Prerequisite Courses
ARTS240L: Painting I

ARTS275L : Independent Study in Fine Arts

The Independent Study in Fine Arts is designed for those students who either want to delve more deeply into a particular aspect of art, or who have a personal project they would like to explore. Students are expected to have enough art experience to formulate their own interests and goals, as well as work independently to completion.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisites
Permission of Instructor

ARTS280L : Creative Entrepreneurship

This course addresses the unique needs of creative people in the creative professions. Students will explore all aspects of living the creative life and building a creative work life through hands-on projects, discussion, and simulation. Topics will include, but are not limited to, the following: assessing your creative personality, exploring career possibilities, and creating a plan, business essentials, and branding yourself in the marketplace.
Credits 3
Lab Hours 0
Class Hours 3

Automotive Technology

AUTO120L : Introduction to Automotive Service

This course is the first of a series of courses that make up the Automotive Technology track. It provides instruction in career opportunities, safety, Oxy-Acetylene usage, measurement, proper tool usage and service operations and basic maintenance including tire service, safety inspections light engine repair and brake work.
Credits 3
Lab Hours 4
Class Hours 2

AUTO121L : Automotive Systems

This course prepares the student for their first co-op experience by introducing the student to safe shop practices, General Motors products, maintenance requirements and procedures, periodic motor vehicle safety inspection and tire service. It consists of five units -Safety and Shop Practices, Maintenance of Automotive Systems, Tire Service, Vibration Correction, and Basic Steering and Brakes.
Credits 5
Lab Hours 9
Class Hours 2

AUTO125L : Introduction to Toyota/Lexus Automotive System

This course prepares the student for their first co-op experience by introducing students to safe shop practices, Toyota/Lexus products, maintenance requirements and procedures, periodic motor vehicle safety inspection and tire service. It consists of five units -Safety and Shop Practices, Maintenance of Toyota/Lexus Automotive Systems, Tire Service, Vibration Correction, and Basic Steering and Brakes. The student will receive credit for Toyota/Lexus courses L005, Introduction to Lexus, 031 Maintenance and General Service, Toyota Express Maintenance T-TEN.
Credits 4
Lab Hours 6
Class Hours 1

AUTO126L : Introduction to Toyota/Lexus Automotive Systems II

This course builds on the three credit Introduction to Toyota Lexus which is Introduction to Automotive Service course that transferred from the Running Start course or by articulation. This course prepares the student for their first co-op experience by introducing students to safe shop practices; Toyota/Lexus products; maintenance requirements and procedures; periodic motor vehicle safety inspection and tire service. It consists of five Units-Safety and Shop Practices, Maintenance of Toyota/Lexus Automotive Systems, Tire Service, Vibration Correction, and Basic Steering and Brakes. The student will receive credit for Toyota/Lexus courses L005 Introduction to Lexus, 031 Maintenance and General Service, Toyota Express Maintenance T-TEN
Credits 1
Lab Hours 0
Class Hours 1
Prerequisites
AUTO225L with a grade of C or higher

AUTO128L : GM Automotive Electricity

This course introduces the student to the theory and application of electricity, magnetism, and electronics. This includes reading, understanding, and applying the information from GM schematics and service literature to diagnose the integrated electronic control systems used on today's GM vehicles.
Credits 4
Lab Hours 8
Class Hours 2

AUTO129L : GM Automotive Electricity I

This course introduces the student to the theory and application of electricity, magnetism, and electronics. This includes reading, understanding, and applying the information from GM schematics and service literature to diagnose the integrated electronic control systems used on today'92s GM vehicles.
Credits 3
Lab Hours 0
Class Hours 3

AUTO130L : GM Automotive Electricity II

In this lab only course, students put into practice the electrical and electronics theory studied in the GM Automotive Electricity I theory class. This includes the application of Ohms Law and Kirchhoffs Law to the solution of electrical and electronic concerns, wiring schematics and symbols, series and parallel circuits, the use of multi-meters, logic probes, oscilloscopes and graphing multi-meters, wiring repair; electronic component and devices, lighting & signaling system circuits.
Credits 1
Lab Hours 4
Class Hours 0
Prerequisites
AUTO129L or AUTO138L

AUTO131L : Toyota/Lexus Electrical I

This class includes discussion of the application of Ohms Law and Kirchhoffs Law to the solution of electrical and electronic concerns, wiring schematics and symbols, series and parallel circuits, the use of multimeters, logic probes, oscilloscopes and graphing multimeters, wiring repair, electronic component and devices, battery, charging and starting systems. Upon successful completion the student will receive credit for Toyota/Lexus courses 623 and L623.
Credits 4
Lab Hours 6
Class Hours 1
Prerequisites
AUTO125L with a C or better. AUTO125L may be taken concurrently.

AUTO132L : Toyota/Lexus Electrical 1-2

In this course, students study electrical and electronics theory including the application of Ohms Law and Kirchhoffs Law to the solution of electrical and electronic concerns; wiring schematics and symbols, series and parallel circuits; the use of multi-meters, logic probes, oscilloscopes and graphing multi-meters; wiring repair; electronic component and devises; battery, charging and starting systems.
Credits 3
Lab Hours 6
Class Hours 3

AUTO133L : Toyota/Lexus Electrical 1-3

In this course, students study electrical and electronics theory including the application of Ohms Law and Kirchhoffs law to the solution of electrical and electronic concerns; wiring schematics and symbols, series, and parallel circuits; the use of multi-meters, logic probes, oscilloscopes and graphing multi-meters; wiring repair; electronic component and device; battery, charging and starting systems. Upon successful completion the student will receive credit for Toyota/Lexus courses 623 and L623.
Credits 1
Lab Hours 0
Class Hours 1

AUTO134L : GM Fuel and Emissions

This course prepares students to diagnose and repair engine fuel injection and electronic controls system concerns as they relate to drivability and emissions. It includes the study of fuel composition and quality, the use of specialized diagnostic tools including the Tech II diagnostic scan tool combined with General Motor's TIS2000 software, and extensive use of the digital multimeter and lab scopes.
Credits 4
Lab Hours 8
Class Hours 2
Prerequisites
Successful completion of AUTO275L

AUTO135L : Toyota/Lexus Electrical II

This course builds on the material covered in Electrical/Electronic I and includes communication and networking, body control systems, security systems, occupant safety systems, entertainment and audio systems, and driver information and navigations systems. Students will practice diagnosis and repair using scan tools, oscilloscopes, and multi-meters. Upon successful completion the students will receive credit for Toyota/Lexus courses 652 and L652.
Credits 4
Lab Hours 6
Class Hours 1
Prerequisites
AUTO125L and AUTO126L with a C or better.

AUTO136L : GM Engine and Engine Related Electrical

This course provides the student with knowledge and skills necessary to diagnose, service, and repair the advanced engines used in GM vehicles today. The activities include engine disassembly, evaluation, repair, and reassembly of a variety of the latest world-class engines manufactured by General Motors and their industry partners. The student will also study GM ignition systems, starting and charging systems.
Credits 5
Lab Hours 9
Class Hours 2
Prerequisites
AUTO121L and AUTO129L

AUTO137L : Engine Mechanical

In this course, the student studies engine design and construction; engine mechanical diagnosis for performance, noise and leaks; engine disassembly procedures and best practices; engine evaluation and measurement; engine removal and installation techniques.
Credits 4
Lab Hours 5
Class Hours 3
Prerequisites
may be taken concurrently: AUTO120L with a grade of C- or better or Permission of Instructor

AUTO138L : Electrical/Electronics I

In this course, students study electrical and electronics theory including the application of Ohms Law and Kirchhoffs Law to the solution of electrical and electronic concerns, wiring schematics and symbols; series and parallel circuits; the use of multi-meters, logic probes, oscilloscopes and graphing multi-meters; wiring repair; electronic component and devices; battery, charging and starting systems.
Credits 4
Lab Hours 5
Class Hours 3

AUTO139L : Electrical/Electronics II

This course builds on the material covered in Electrical/Electronics I and includes communication and networking, body control systems, security systems, occupant safety systems, entertainment and audio systems and driver information and navigations systems. Students will practice diagnosis and repair using scan tools, oscilloscopes, and multi-meters.
Credits 4
Lab Hours 5
Class Hours 3

AUTO140L : Braking Systems

This course prepares the students to diagnose, evaluate and service base brake systems, parking brake systems, antilock brake systems and traction control systems. Students will practice machining drums and rotors using both on-car and off-car lathes. Students will practice diagnosis, evaluation and repair using pressure gauges, measuring tools, scan tools, oscilloscopes, and multimeters.
Credits 4
Lab Hours 4
Class Hours 3
Prerequisites
AUTO120L with a grade of C- or better or Permission of Instructor

AUTO141L : Toyota/Lexus Brakes

This course prepares the students to diagnose, evaluate and service base brake systems, parking brake systems, antilock brake systems and traction control systems. Students will practice machining drums and rotors using both on-car and off-car lathes. Students will practice diagnosis, evaluation and repair using pressure gauges, measuring tools, scan tools, oscilloscopes, and multimeter. Upon successful completion the student will receive credit for Toyota/Lexus courses 553 and L553.
Credits 4
Lab Hours 6
Class Hours 1
Prerequisites
AUTO125L, AUTO131L and AUTO135L with C or better.

AUTO145L : HVAC Systems

This course prepares the students to diagnose, evaluate and service heating ventilation and air conditioning systems using the latest equipment and technology. The course includes basic refrigeration theory and extensive study of the sub-systems that play a role in HVAC performance followed by hands-on practice evaluating and diagnosing HVAC issues. Students must pass the ASE EPA 609 test as part of completion of this course.
Credits 4
Lab Hours 7
Class Hours 3
Prerequisites
AUTO120L with a grade of C- or better or Permission of Instructor

AUTO150L : Suspension and Steering

This course prepares the students to diagnose, evaluate and service base steering and suspension systems and electronically controlled steering and suspension systems. Students will practice replacing steering and suspension components. Students will practice 2-wheel and 4-wheel alignment.
Credits 4
Lab Hours 7
Class Hours 3
Prerequisites
AUTO120L with a grade of C- or better or Permission of Instructor

AUTO151L : Toyota/Lexus Suspension, Steering and Handling

This course introduces students to steering and suspension systems with emphasis on identification of steering and suspension type, mechanical components, and electronic controls. Lab activities will include on car diagnostic procedures; removal and installation of steering and suspension components, disassembly, evaluation and inspection and reassembly procedures. Focus will be on the latest generation of Toyota/Lexus steering and suspension systems. Upon successful completion the student will receive credit for Toyota course 453 and L453.
Credits 4
Lab Hours 6
Class Hours 1
Prerequisites
AUTO135L with C or better.

AUTO152L : Toyota/Lexus Manual Drive Trains

In this course, students study manual transmissions, transaxles, transfer cases and rear axle theory of operation, disassembly, and reassembly procedures, including set-up and endplay measurements. Students will also practice removal and replacement procedures for clutches, transmissions, transaxles, transfer cases and rear axle assemblies. Focus will be on the current generation Toyota/Lexus manual transmissions, transaxles, differentials, and transfer cases. Upon successful completion the student will receive credit for Toyota/Lexus course 302.
Credits 4
Lab Hours 6
Class Hours 1
Prerequisites
AUTO135L with a C or better.

AUTO170L : GM ASEP Cooperative Education I

This course provides the opportunity to receive hands-on experience in an automotive service environment. Students will be exposed to a wide array of experiences and will become familiar with the responsibilities, workload, and duties of a professional automotive technician.
Credits 4
Lab Hours 12
Class Hours 0
Prerequisites
AUTO128L or AUTO129L and AUTO130L with a grade of C or higher and a 2.0 CGPA

AUTO175L : Toyota/Lexus Cooperative Education I

This 12-week co-op provides the opportunity to receive hands-on experience in a Toyota/Lexus dealership environment. Student will be exposed to a wide array of experiences and will become familiar with the responsibilities, workload, and duties of a professional automotive technician. Additionally, the student will complete assigned University of Toyota web- based training modules during this session.
Credits 1
Lab Hours 2
Class Hours 0
Prerequisites
AUTO125L and AUTO135L with a C or better.

AUTO176L : GM ASEP Cooperative Education II

This course provides the opportunity to receive hands-on experience in an automotive service environment. Students will be exposed to a wide array of experiences and will become familiar with the responsibilities, workload, and duties of a professional automotive technician.
Credits 2
Lab Hours 6
Class Hours 0
Prerequisites
AUTO200L and AUTO211L with a grade of C or higher and a 2.0 CGPA

AUTO200L : GM Heating, Ventilation & Air Conditioning

This course prepares students to safely diagnose, and repair common performance concerns related to heating and AC systems. Emphasis is placed on electrical and electronic control of these systems. Electrical and Electronic theory studied previously is put to practical use in evaluating and diagnosing AC Control Systems and related Sub-Systems.
Credits 3
Lab Hours 8
Class Hours 2
Prerequisites
Successful completion of AUTO136L with a grade of C or higher and a CGPA of 2.0 or higher.

AUTO210L : Toyota/Lexus Heating, Ventilation & Air Conditioning

This course prepares the students to diagnose, evaluate and service heating ventilation and air conditioning systems using the latest equipment and technology. The course includes basic refrigeration theory and extensive study of the sub-systems that play a role in HVAC performance followed by hands-on practice evaluating and diagnosing HVAC issues. Students must pass the ASE EPA 609 test as part of completion of this course. Upon successful completion the student will receive credit for Toyota/Lexus course 752 and L752.
Credits 4
Lab Hours 6
Class Hours 1
Prerequisites
AUTO135L with C or better.

AUTO211L : GM Supplemental Inflatable Restraint & Accessories

Students study Supplemental Inflatable Restraint (SIR) Systems, Windshield Wiper Systems, Cruise Control, Body Controllers and Theft Deterrent Systems. This course builds on the electronic/electrical theory studied previously by applying that theory in evaluating and diagnosing these integrated systems.
Credits 3
Lab Hours 8
Class Hours 2
Prerequisites
AUTO136L with a grade of C and a CGPA of 2.0 or higher

AUTO222L : GM Drive Trains

In this course, the student studies GM automatic transmissions and transaxles, manual transmissions and transaxles, transfer cases and rear axles. The learning outcomes include the development of skills in the diagnosis, disassembly, evaluation and repair of these components and the related electronic control systems.
Credits 5
Lab Hours 9
Class Hours 2
Prerequisites
Successful completion of AUTO 275L

AUTO225L : GM Chassis Systems

This course prepares students to diagnose, repair and service GM antilock brakes, steering and suspension systems. Emphasis is placed on service of integrated systems and four-wheel alignment, as well as their related electrical and electronic sub-systems.
Credits 4
Lab Hours 8
Class Hours 2
Prerequisites
Successful completion of AUTO170L

AUTO230L : Automotive Service Management

This course is instructor led with classroom meetings that will use Andrew A. Rezin'92s text Automotive Service Management - Principles and Practice. 2009. The course will address such subjects as Service Operations; Management Styles and Strategies; Financial Management; Organization; Customer Relations; Employee Relations; marketing; Legal Issues and Responsibilities.
Credits 3
Lab Hours 0
Class Hours 3

AUTO240L : Manual Drive Trains

In this course, students study manual transmissions, transaxles, transfer cases and rear axle theory of operation, disassembly and reassembly procedures including set-up and endplay measurements. Students will also practice removal and replacement procedures for clutches, transmissions, transaxles, transfer cases and rear axle assemblies.
Credits 4
Lab Hours 4
Class Hours 3
Prerequisites
AUTO120L with a grade of C- or better or POI

AUTO245L : Engine Performance I

This course prepares the student with the skills they need to service, diagnose, and repair fuel delivery, ignition and emission systems used on today'92s vehicles. Students will study four stroke theory and combustion theory for both spark ignited, and compression ignited engines. Students will study the emission concerns related to internal combustion engines and the systems and strategies used to control these emissions. Students will practice testing and diagnostic routines on vehicles with faults using scan tools, multi-meters, signal generators, pressure gauges and oscilloscopes.
Credits 4
Lab Hours 5
Class Hours 3
Prerequisites
AUTO120L with a grade of C- or better or Permission of Instructor

AUTO246L : Engine Performance II

This course builds on Engine Performance I with more emphasis on performance systems such as turbo charging, supercharging, variable cam timing, and variable valve lift and drivability diagnostics related to these systems. Extensive use of the scan tool, multimeters and oscilloscope are employed in the diagnosis and evaluation of these systems as students determine the root cause of failures following a logical diagnostic process. There is more emphasis on the application of theory to solving drivability and performance concerns on vehicles with failures built into the systems.
Credits 4
Lab Hours 5
Class Hours 3
Prerequisites
AUTO120L and AUTO245L with a grade of C- or better or Permission of Instructor

AUTO255L : Toyota/Lexus Engine Control Systems I

This course prepares the student with the skills they need to service, diagnose, and repair fuel delivery, ignition and emission systems used on today's vehicles. Students will study four stroke theory and combustion theory for both spark ignited, and compression ignited engines. Students will study the emission concerns related to internal combustion engines and the systems and strategies used to control these emissions. Students will practice testing and diagnostic routines on vehicles with faults using scan tools, multi-meter, signal generators, pressure gauges and oscilloscopes. Focus will be on Toyota/Lexus systems and upon successful completion the student will receive credit for Toyota/Lexus courses 852 and L852.
Credits 4
Lab Hours 6
Class Hours 1
Prerequisites
AUTO135L with a C or better.

AUTO256L : Toyota/Lexus Engine Control Systems II

This course builds on Engine Control Systems I with more emphasis on performance systems such as turbo charging, super charging, variable cam timing, and variable valve lift and drivability diagnostics related to these systems. Extensive use of the scan tool, multimeters and oscilloscope are employed in the diagnosis and evaluation of these systems as students determine the root cause of failures following a logical diagnostic process. There is more emphasis on the application of theory to solving drivability and performance concerns on vehicles with failures built into the systems. Focus will be on Toyota/Lexus advanced engine controls. Upon successful completion the student will receive credit for Toyota/Lexus courses 874 and L874.
Credits 4
Lab Hours 6
Class Hours 1
Prerequisites
AUTO255L with a C or better.

AUTO257L : Toyota/Lexus Engine Repair

In this course, the student studies engine design and construction; engine mechanical diagnosis for performance, noise, and leaks; engine disassembly procedures and best practices; engine evaluation and measurement; engine removal and installation techniques. The students will be focused on the current generation of Toyota/Lexus engines and will receive credit for Toyota/Lexus courses 151 and L151 upon successful completion of course.
Credits 6
Lab Hours 10
Class Hours 1
Prerequisites
AUTO125L, AUTO131L, and AUTO135L with a C or better.

AUTO265L : Automatic Transmissions and Transaxles

This course introduces students to automatic transmissions and transaxles with emphasis on identification of transmission type, mechanical components and power flow, hydraulic systems and operation and electronic controls. Lab activities will include on car diagnostic procedures; removal and installation of a transaxle; disassembly, evaluation and inspection and reassembly procedures.
Credits 4
Lab Hours 6
Class Hours 3

AUTO267L : Toyota/Lexus Automatic Transmissions

This course introduces students to automatic transmissions and transaxles with emphasis on identification of transmission type, mechanical components and power flow, hydraulic systems operation and electronic controls. Lab activities will include on car diagnostic procedures; removal and installation of a transaxle; disassembly, evaluation and inspection and reassembly procedures. Focus will be on the latest generation of Toyota/Lexus automatic transmissions and transaxles. Upon successful completion the student will receive credit for Toyota course 274.
Credits 4
Lab Hours 6
Class Hours 1
Prerequisite Courses
AUTO135L: Toyota/Lexus Electrical II

AUTO270L : Advanced Technology Systems

This course introduces students to the latest technology in transportation including hybrid, electric and fuel cell vehicles. Students will learn about the different design hybrid systems and the components used in these systems. Students will learn about the personal protection equipment used and safe practices that are followed to service and repair the systems used on these vehicles.
Credits 4
Lab Hours 0
Class Hours 3
Prerequisites
AUTO120L with a grade of C- or better or Permission of Instructor

AUTO275L : GM ASEP Cooperative Education III

This course provides the opportunity to receive hands-on experience in an automotive service environment. Student will be exposed to a wide array of experiences and will become familiar with the responsibilities, workload, and duties of a professional automotive technician.
Credits 4
Lab Hours 12
Class Hours 0
Prerequisites
Successful completion of AUTO176L and a 2.0 CGPA

AUTO280L : Toyota/Lexus Cooperative Education II

This 6-week co-op provides the opportunity to receive hands-on experience in a Toyota/Lexus dealership environment. Student will be exposed to a wide array of experiences and will become familiar with the responsibilities, workload, and duties of a professional automotive technician with an emphasis on HVAC systems. Additionally, the student will complete assigned University of Toyota web-based training modules during this session.
Credits 1
Lab Hours 2
Class Hours 0
Prerequisites
AUTO210L with a C or better.

AUTO281L : Toyota/Lexus Cooperative Education III
This 11-week co-op provides the opportunity to receive hands-on experience in a Toyota/Lexus dealership environment. Student will be exposed to a wide array of experiences and will become familiar with the responsibilities, workload, and duties of a professional automotive technician with an emphasis on Braking Systems, Steering and Suspension Systems and Manual Transmission. Additionally, the student will complete assigned University of Toyota web-based training modules during this session.
Credits 1
Lab Hours 2
Class Hours 0
Prerequisites
AUTO141L, AUTO151L and AUTO152L with a C or better.

AUTO282L : Toyota/Lexus Cooperative Education IV
This 12-week co-op provides the opportunity to receive hands-on experience in a Toyota/Lexus dealership environment. Students will be exposed to a wide array of experiences and will become familiar with the responsibilities, workload, and duties of a professional automotive technician with an emphasis on Engine Mechanical repairs and Engine Performance. Additionally, the student will complete assigned University of Toyota web-based training modules during this session.
Credits 1
Lab Hours 2
Class Hours 0
Prerequisites
AUTO255L, AUTO256L and AUTO257L with a C or better.

AUTO290L : GM ASEP Cooperative Education IV
This course provides the opportunity to receive hands-on experience in an automotive service environment. Students will be exposed to a wide array of experiences and will become familiar with the responsibilities, workload, and duties of a professional automotive technician.
Credits 4
Lab Hours 12
Class Hours 0
Prerequisites
AUTO222L and AUTO134L with a grade of C or higher and a 2.0 CGPA

Business Management

BUS130L : Introduction to Business
This course offers the study of business world operations including the wide range of occupational functions and the American economic system.
Credits 3
Lab Hours 0
Class Hours 3

BUS150L : Principles of Customer Service
This course is designed to develop the critical skills necessary for success as a customer service provider. Students will examine current concepts and trends in the customer service industry and will take an active role in the development of their own exceptional customer service skills. Areas of study will include problem solving, communication, development of a customer service strategy, creating customer service systems, conflict resolution, coping with challenging customers, customer retention, and measuring satisfaction.
Credits 3
Lab Hours 0
Class Hours 3

BUS160L : Principles of Marketing
This course studies product, pricing, promotion and channels of distribution. Marketing in retail, wholesale, service and manufacturing companies.
Credits 3
Lab Hours 0
Class Hours 3

BUS175L : Cooperative Education/Internship I
The initial experience in a program designed to combine classroom theory with practical application through job-related experiences. Students are actively working in an organization with a focus which relates to their academic training and career objectives.
Credits 3
Lab Hours 9
Class Hours 0
Prerequisites
Permission from advisor and department chair

BUS231L : Principles of Management

A comprehensive survey of the principles and practices of management as they are currently being applied in the United States and abroad. The two continuing themes throughout the course are; (1) the never-ending effort by managers and organizations to meet or exceed customer needs and (2) the need for effective leadership in organizations. Emphasis is placed on determining the role of a manager through the leadership process. Individual and group-work dynamics are explored through case studies, research, and experiential exercises
Credits 3
Lab Hours 0
Class Hours 3

BUS232L : Operations Management

This course will cover how to manage activities involved in the process of transformation resources into products or services. Strategic decision-making using tools such as forecasting, basic inventory models, aggregate planning, master scheduling, materials requirements, and scheduling of operations will be covered. Also, procurement, movement, and storage of materials are covered. Inventory and production flows, line balancing, and lean principles will be discussed throughout the course.
Credits 3
Lab Hours 0
Class Hours 3

BUS233L : Supervision

Studies techniques and responsibilities involved in the supervision of employees in business management. This course examines human behavior which encourages productive business relationships at all levels. Management of projects and customer service functions are studied. Students learn to work with minimal supervision and to effectively supervise the work of others.
Credits 3
Lab Hours 0
Class Hours 3

BUS235L : Small Business Management: A Capstone Course

This is the Management capstone course, which studies management techniques as applied to small businesses. Topics involve the requirements necessary to launch a new venture and manage it as an ongoing business. Discussions will cover business plan development, computer applications, human resources, purchasing, marketing, taxation, risk management, and control procedures. The development of a comprehensive business plan allows students to plan for a new venture of their choosing, which is presented in both an oral and written proposal.
Credits 3
Lab Hours 0
Class Hours 3

BUS238L : Business Law I

Origins of law, federal and state court systems, classification of criminal and tort law; a working knowledge of the law of contracts, and sales and consumer protection as applied to everyday usage.
Credits 3
Lab Hours 0
Class Hours 3

BUS239L : Business Law II

A study of the law of personal property and bailment; real property, wills, intestacy, and trusts; commercial paper; insurance, secured transactions, and bankruptcy; agency and employment; business organization and regulation and emerging trends and issues. In addition, the course is designed to enable students to better comprehend the rules of conduct they can reasonably expect from others, as well as the conduct others may expect from them in various business situations.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisite Courses
BUS238L: Business Law I

BUS240L : Introduction to Project Management

This course will provide students with basic skills to define, analyze and manage projects. By using a variety of automated tools and working with a hands-on case study, students will become familiar with project feasibility, cost benefit analysis, and the development of a project plan. Students will also become familiar with a systems development methodology (SDM) and structured business systems analysis.
Credits 3
Lab Hours 0
Class Hours 3

BUS241L : Human Resource Management

The study of human resource issues affecting employees in present and future organizations.
Credits 3
Lab Hours 0
Class Hours 3

BUS252L : Introduction to International Business

Study of today'92s globalization process, international environment and management operations for a multilateral corporation. The course particularly focuses on the organizational, marketing and production strategies employed by companies in a world market.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisites
BUS130L, SOSC231L or SOSC232L or Permission of Department Chair

BUS261L : Social Media Marketing

This course will examine the use of social media marketing today. Students will gain the knowledge and skills needed to effectively use social media to market a business, and/or themselves as business professionals. Attention will be focused on efforts used through the Internet to connect and network with customers and other businesses through digital channels. Areas to be covered include: customer service, building brand loyalty, expanding markets, and creating sales. Students will utilize a variety of social media, including blogs, wikis, Linkedln, Facebook, Twitter, and more.
Credits 3
Lab Hours 0
Class Hours 3

BUS265L : Independent Study

Students in an independent study option will engage in learning about topics of special interest and/or need. Written reports on the topics of the independent study are required.
Credits 3
Lab Hours 0
Class Hours 3

BUS280L : Cooperative Education/Internship II

This course is designed to allow students to continue an existing cooperative education/ internship. It will combine classroom theory with practical application through job-related experiences. Students are actively working in an organization with a focus which relates to their academic training and career objectives. This course may be taken as a second, non-related cooperative education experience only with Department Chair approval.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisites
Permission of Department Chair

College Essentials

INDL100L : College Essentials

This course helps new students learn to be confident and master the skills needed to succeed at Lakes Region Community College. New students are required to take this course during their first semester of enrollment. Topics include accessing college resources and services, navigating the learning management system, information literacy, time-management, self-confidence, and self-motivation in an academic environment, long and short-term goal setting, career goals, maintaining physical, mental, financial, and emotional health. A minimum grade of C in this course is required.
Credits 1
Lab Hours 0
Class Hours 1

Computer Information Systems

CIS130L : Computer Ethics Privacy and Security
This course provides students the skills to use modern technology. Topics include computer ethics, techniques to protect privacy and how to protect your devices from malicious attacks. Students will learn terminology as well as examine current trends and laws concerning technology. Students will also learn how to safeguard against health hazards that can be associated with computer use.
Credits 1
Lab Hours 2
Class Hours 1

CIS133L : Introduction to Information Technology
This course is a fundamental technology course promoting skills and knowledge for students to apply academically and professionally. Concepts covered include computing basics, internet, hardware, software, file management, viruses, and spyware. Additionally, a good portion of the class is dedicated to applications used for email, word processing, presentations, spreadsheets and databases. This class will use simulation and live software projects.
Credits 3
Lab Hours 2
Class Hours 2

CIS136L : Fundamentals of Information Technology
Students will learn the basics of computer hardware, software, digital security, networking, internet. A look at operating systems, digital data, algorithms, and digital security will also be considered. Students will begin to learn a systems thinking approach to problem solving.
Credits 3
Lab Hours 2
Class Hours 2

CIS140L : Introduction to Programming
This course provides an introduction to the process of problem solving as it relates to program design and development. The student will learn to use various methodologies used in programming, as well as learning to use the various techniques and tools which have been developed to aid in the process. The basic programming statement types (sequential, conditional, and iterative) will be covered as the student learns to use them in algorithms, as well an introduction into object-oriented and web-development concepts.
Credits 4
Lab Hours 2
Class Hours 3

CIS141L : Information Systems
This course will give students the foundational concepts for Information systems. Looking at people, technology and processes that work together to make up information systems. Students will understand how businesses use information systems, and the types of information systems that are used. Preliminary IT concepts are presented in the context of business and not just as stand-alone ideas.
Credits 3
Lab Hours 2
Class Hours 2

CIS170L : Cooperative Education
This course provides the opportunity for the student to utilize learned course competencies in a real-life setting. The course also provides supplemental laboratory experience on an extensive array of equipment and processes.
Credits 3
Lab Hours 9
Class Hours 0
Prerequisites
Permission of advisor and department chair

CIS200L : Help Desk Skills
This course enables the student to understand and develop appropriate help desk techniques. Topics include roles of help-desk personnel, ticketing systems, process workflow, issue documentation, knowledge base use and how to trouble shoot hardware and software problems. Also covered will be end user management.
Credits 3
Lab Hours 2
Class Hours 2

CIS210L : Operating Systems

Students in this course will look at various operating systems and their role in an organization. Concepts will be covered regarding installation, configuration, most used features, troubleshooting methods and where to go for help when issues arise. Students will also gain a key understanding of why each operating system may be used and best practices.
Credits 3
Lab Hours 2
Class Hours 2

CIS215L : Intermediate Programming

Students will learn object-oriented programming concepts and programming techniques. They will learn coding in a logical, structured, organized programming using current object-oriented programming languages. This will be the second language students are exposed to, so understanding similarities and differences with languages will be presented. Program documentation and troubleshooting will also be covered. Exposure to SDK and IDE will also be explored.
Credits 4
Lab Hours 2
Class Hours 3

CIS216L : Advanced Programming

Students in this course will continue their education programming focused on the object-oriented languages. Language may change for this course, but concepts related to developing functional, secure, proficient, and professional code will be covered. A functional project will cap off this course.
Credits 4
Lab Hours 2
Class Hours 3

CIS227L : IT Developmental Applications

This course introduces the student to MS Visio and MS Project. Students will learn to work with various types of diagrams in Visio, as well as how to work with Project to plan and track projects using a variety of resources. This is a hands-on course where students will work extensively with software to develop projects based on individual interests and course of study. It is designed for the IT industry, but the skills learned can translate to any industry.
Credits 3
Lab Hours 2
Class Hours 2

CIS233L : Introduction to Multimedia

This course offers an introduction to multimedia concepts with emphasis on web-based multimedia. Students will study the different multimedia elements to include text, images, video, sound, and interactive content. Additionally, students will learn about the hardware and software used to produce multimedia, to include such applications as Maya, Macromedia Director and Flash. A number of projects will give students the opportunity to reinforce their learning by building computer applications that incorporate graphics, animation, audio and video.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisite Courses
CIS136L: Fundamentals of Information Technology

CIS234L : Website and Design Development

This course offers an introduction to Website Design and Development using HTML5 and CSS, as well as various software products available. The basics of good page and form design, graphics, mapping, lists and tables will be discussed. An overview of integrating text, video, data, audio, graphics and animation will also be covered.
Credits 3
Lab Hours 2
Class Hours 2

CIS235L : Spreadsheets

This course provides extensive “hands-on” exposure to MS Excel, an industry-standard program. Topics covered include constructing a worksheet, entering and manipulating data, and extracting useful information from the worksheet. Graphs and charts of data will be constructed, and “what-if projections will be developed.
Credits 3
Lab Hours 2
Class Hours 2

CIS238L : Web Programming II

This course is a companion to Web Programming I.Topics include PERL, CGI, Java and scripting in Visual Basic and Java.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisites
CIS136L, CIS140L, and CIS233L which may be taken concurrently

CIS239L : E-Commerce

This course provides students with an introduction to the technologies required for on-line business activities. Technologies will include security, databases, XML, shopping carts, as well as other current topics. This course also covers the issues concerning international trade, ethics, legal issues, and taxes.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisites
CIS132L or Permission of Instructor

CIS240L : Management with Computers

This is a project-based course where students are expected to utilize several software packages including MS Project. Students will study in depth how businesses use computers and software in day-to-day business. Make or buy decisions, artificial intelligence, decision support systems, the software development life cycle, data flow diagrams and CASE tools will also be studied.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisites
Senior status

CIS242L : Database Management and Design

This lab course introduces modern techniques of data management. Students will learn the concepts of data normalization elements and their organization into proper schemata. Working with database management systems involves programming and sequential thinking skills, whereby students create and manipulate databases using SQL. Additional topics include Big Data, data security, and NoSQL.
Credits 3
Lab Hours 2
Class Hours 2

CIS244L : SQL Server

This course provides students with the knowledge and skills required to install, configure, administer, and troubleshoot MS SQL Server. Students will learn to write queries and perform a wide variety of tasks using both GUI and SQL code.
Credits 3
Lab Hours 2
Class Hours 2

CIS245L : Information Storage and Management

This course teaches students how to manage and secure information. This includes instruction and hands-on exercises in the installation, configuration, and management of a variety of technologies like RAID, SAN and NAS used for storing, accessing, securing, sharing and optimizing information.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisite Courses
CIS136L: Fundamentals of Information Technology

CIS247L : Introduction to Oracle DB

This course provides students with the knowledge and skill required to install, configure, administer, and troubleshoot Oracle DB. Students will learn to write queries and perform a wide variety of tasks using both GUI and SQL code.
Credits 3
Lab Hours 3
Class Hours 2
Prerequisites
CIS140L and CIS242L

CIS248L : Introduction to Networks

This course is the first in a series of four courses designed to prepare students to earn the Cisco Certified Network Associate (CCNA) certification. It is based on the Cisco Introduction to Networks course and introduces the architecture, structure, functions, components and models of the Internet and computer networks. The principles of IP addressing, and fundamentals of Ethernet concepts, media and operations are introduced to provide a foundation for the curriculum. By the end of the course, students will be able to build simple LANs, perform basic configurations for routers and switches and implement IP addressing schemes.
Credits 3
Lab Hours 2
Class Hours 2

CIS249L : Network Security

This course covers basic security principles, cryptography, security baselines and current attack and defense techniques and technologies. It also covers the development of security policies and procedures and the management of security efforts. The course prepares students for the CompTIA Security+ certification exam.
Credits 3
Lab Hours 2
Class Hours 2

CIS250L : Networking Fundamentals (CCNA 1 Cert Test)

This course is an introduction to networking. It is based on the Cisco CCNA 1 course - Networking for Home and Small Businesses. The focus is on network terminology and protocols, local-area networks (LANs), wide-area networks (WANs), Open System Interconnection (OSI) models, cabling, cabling tools, routers, router programming, Ethernet, Internet Protocol (IP) addressing and network standards.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisites
CIS136L or equivalent

CIS251L : Small Business Networking

This course is the second in a series of four courses designed to prepare students to earn the Cisco Certified Network Associate (CCNA) certification. It is based on the Cisco CCNA 2 course, working at a Small-to-Medium Business or ISP. This course focused on initial router configuration, Cisco IOS software management, routing protocol configuration, TCP/IP, and sub-netting.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisite Courses
CIS136L: Fundamentals of Information Technology

CIS252L : Managing & Troubleshooting Personal Computers

This course prepares students to pass Comp TIA'92s A+ Essentials and Practical Applications exams. The student will gain an understanding of the terminology, technology, installation and upgrading of Windows PCs as well as basic Windows operating system support. The student will also learn advanced configuration and troubleshooting skills, to include the use of the command line interface.
Credits 3
Lab Hours 2
Class Hours 2

CIS253L : Mac OS and Networking

This course is based on Apple-Certified courseware and is designed to train students to work with the Mac operating system as part of the business environment. Students will learn how to install, configure, and troubleshoot software and hardware problems that can occur. Additional topics such as systems resources, peripheral devices, hidden files, and firewall configuration are covered, as well as many others necessary for the student to become Apple certified.
Credits 3
Lab Hours 3
Class Hours 2

CIS259L : Designing and Supporting Networks

This course is the last in a series of four courses designed to prepare students to earn the Cisco Certified Network Associates (CCNA) certification. It is based on Cisco CCNA four Course-Designing and Supporting Computer Networks. This course focuses on network design methodologies, network characterization and prototyping tools, IPv4 and IPv6 addressing and WAN technologies to include Frame Relay
Credits 3
Lab Hours 2
Class Hours 2
Prerequisite Courses
CIS253L: Mac OS and Networking

CIS261L : Installing and Configuring Windows Servers

This course covers installing and configuring Microsoft Servers; managing directory services; implementing networking, file and print services; and server virtualization.
Credits 3
Lab Hours 2
Class Hours 2

CIS262L : Intro to Linux

This course provides the introduction to UNIX operating system. Concepts such as file system, editors, program development, shell environment/ programming, communication, data management, security and remote computing will be covered. In addition to laboratory exercises to enforce the concepts, students will also engage in a course project. Computer labs will be open for student use.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisite Courses
CIS250L: Networking Fundamentals (CCNA 1 Cert Test)

CIS265L : Independent Study

Students in an independent study option will engage in learning about a topic of special interest and/or need. A written report on the topic of the independent study is required.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisites
A matriculated student, Permission of Department Chair and a minimum cumulative GPA of 2.0

CIS267L : Administering Windows Servers

This course covers implementing Group Policy; managing user and service accounts, maintaining directory services, configuring DNS and remote access; and optimizing file services and security.
Credits 3
Lab Hours 2
Class Hours 2

CIS268L : Advanced Windows Server Configuration

This course covers advanced network services, file services, dynamic access control, network load balancing, and failover clustering and disaster recovery.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisite Courses
CIS261L: Installing and Configuring Windows Servers

CIS269L : Designing Network Services Infrastructure

This course prepares the student for designing a networking infrastructure based on an organization'92s needs. Topics include DHCP, IP address configuration, DNS, WINS, as well as current technologies.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisite Courses
CIS261L: Installing and Configuring Windows Servers

CIS271L : Analyzing Software Requirements

This course teaches students to develop conceptual, logical and physical designs for a business software solution using modern software techniques and tools such as UML, SCRUM, etc. This course prepares the student for the Microsoft Certified Exam.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisite Courses
CIS130L: Computer Ethics Privacy and Security

CIS272L : Object-Oriented Programming - Java

This course offers a study of the features of Java. Focus will be on the principles of software design and development specific to the object-oriented approach, including classes, objects, inheritance, and error handling.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisites
CIS140L or equivalent

CIS274L : XML

This course will teach students the skills to necessary to build distributed applications in an n-tier client server environment using Visual Basic & XML. Additional topics include database access in a multi-tier or cloud environment and the application front end.
Credits 3
Lab Hours 3
Class Hours 2
Prerequisites
CIS 140L or permission of department chair

CIS275L : Object-Oriented Programming - C++

This course offers a study of the features of C++. Focus will be on the principles of software design and development specific to the object-oriented approach including classes, objects, inheritance, and error handling.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisites
CIS140L or equivalent

CIS276L : Developing Web Applications

This course will teach students the skills necessary to develop and implement web applications using technologies such as PHP, MySQL, NET and IIS. Topics include creating user services, creating and managing components, data manipulation, debugging and security issues.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisites
CIS 234L or permission of Department Chair.

CIS277L : Programming for Games

This in an introductory computer-games programming class, which teaches the programming techniques needed to produce interactive graphical applications like computer games. The topics covered include: game design, storyboarding, animation techniques, game construction tools, artificial intelligence, input devices, sound and real time graphics. During the course, students produce a simple interactive graphical project.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisite Courses
CIS140L: Introduction to Programming

CIS278L : Programming with DirectX

This course is designed to teach the student techniques needed to create games using DirectX technology. This is a hands-on course where students will be expected to complete several games. Topics include: sprites, bitmaps, DirectX game libraries, windows sockets, as well as game design.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisites
CIS140L or Permission of Instructor

CIS280L : Capstone Project

This course is intended to provide the vehicle for students to show overall competency in Computer Information Systems and the specialties that have been a part of their degree program. Under supervision of a faculty advisor, the student will select an appropriate subject; perform the research and present results. Project will include the following components: project proposal, research and definition, and the project presentation. This course should be taken the semester prior to graduation.
Credits 3
Lab Hours 2
Class Hours 2

CIS282L : Routing & Switching Essentials

This course is the second in a series of four courses designed to prepare students to earn the Cisco Certified Network Associate (CCNA) certification. It is based on the Cisco Routing & Switching Essentials course and introduces the architecture, components and operation of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of the course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPvl, RIPv2, single and multi-area OSPF, VLANs and inter-VLAN routing in both IPv4 and IPv6 networks.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisites
CIS248L with a C- or better

CIS283L : Scaling Networks

This course is the third in a series of four courses designed to prepare students to earn the Cisco Certified Network Associate (CCNA) certification. It is based on the Cisco Scaling Networks course and introduces the architecture, components and operation of routers and switches in a large and complex network. Students learn how to configure routers and switches for advanced functionality. By the end of the course, students will be able to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, STP and VTP in both IPv4 and IPv6 networks. Students will also develop the knowledge and skills needed to implement DHCP and DNS operations in a network.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisites
CIS282L with a C- or better

CIS284L : Connecting Networks

This course is the last in a series of four courses designed to prepare students to earn the Cisco Certified Network Associate (CCNA) certification. It is based on the new Cisco CCNA Routing & Switching course -Connecting Networks. This course covers the WAN technologies and network services required by converged applications in a complex network. It enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Students also develop the knowledge and skills needed to implement IPSec and VPN operations in a complex network.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisites
CIS282L with a grade of C- or better

CIS291L : Ethical Hacking

Students in this course will gain skills for moving into the Cyber Security field. Topics covered will include: Reconnaissance, Scanning, Gaining Access, Maintaining Access and Avoiding Detection. This course prepares student to take the EC-Council Certified Ethical Hacker certification.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisites
CIS248L or department chair approval

CIS292L : Mobile Application Development

This is an introductory course developing mobile applications for various platforms, including smart phones, Android devices and Apple IOS. Topics include device convergence, platform architecture, app life-cycles, design patterns, and cross-platform development, as well as the challenges of developing for mobile devices. Students will be exposed to different API and languages such as Objective C, Xcode and Java
Credits 3
Lab Hours 2
Class Hours 2
Prerequisites
CIS140L or Permission of Instructor

CIS295L : Internship

This course is an internship course for the student. A minimum of 60 hours must be completed in a preapproved internship in the field in which the student wants to seek employment. Approval will be at the Department Chair's discretion.
Credits 3
Lab Hours 9
Class Hours 0

CIS296L : Cyber Defense

Students in this course will gain skill for moving into the Cyber Security field. Topics covered will include: threats and vulnerabilities, software systems, compliance and assessment, security operations and monitoring, and incident response.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisites
CIS248L or permission of department chair.

Culinary Arts/Pastry Arts

CULA145L : Breads and Rolls

Students will be introduced to the baker'92s scale and taught how to properly measure ingredients. Reading a formula and recipe conversions will also be covered. The history of bread making will be explored as well as the creation of many classical items from several cultures around the world. The milling process of flour will be discussed as well as the function of important ingredients in the dough. The class will largely focus on the organized process of preparing dough. Mixing, shaping, proofing, baking, and storing are critical steps that will be explored. The bread and roll productions that will be created in each class will be used in our dining room bakery case.
Credits 3
Lab Hours 5
Class Hours 1

CULA146L : Bakery Production

This course will focus on the common items found in any bakery/pastry shop. Muffins, quick breads, coffee cakes, and donuts will be explored. Pie dough, puff pastry, pate a choux, short dough and Danish dough will be taught, and several items will be created from each. Classical European pastry will be touched upon and the “classics” of pastry will be introduced. Pies, tarts, cookies, and common bakery items will also be created. Students will be introduced to various ingredients such as nuts, chocolates, and fruits; they will be taught how, when, and why to use them.
Credits 3
Lab Hours 5
Class Hours 1

CULA147L : Hot and Cold Plated Desserts

The focus of this course is plated desserts that would be found in a restaurant setting. The critical components of a plated dessert will be explored along with detailed instructions of each. Various sauces and garnishes will be introduced, as well as various plate presentations. This course will include the production of slow-bake desserts (custards, cheesecakes), frozen desserts, traditional desserts (Baked Alaska, Bananas Foster, Cherries Jubilee), and creative ways to present simple desserts. Students will be required to use their creativity and create a plated dessert of their own for a project grade.
Credits 3
Lab Hours 5
Class Hours 1

CULA148L : Cake Decorating

This course will be concerned with creating various cakes, icings, fillings, frostings, and butter creams. Each student will learn the proper techniques for covering a cake, as well as ways to enhance the decoration on it. Making paper cones, writing on cakes, and making several types of butter cream flowers are covered. Classical cakes will also be covered (Dobos, Sacher) along with their history. There will be a large concentration on using a piping bag, the function of various tips, and proper piping techniques. This course will also introduce the use of marzipan, fondant, airbrushing, and wedding cakes.
Credits 3
Lab Hours 5
Class Hours 1

CULA149L : Baking and Pastry Technologies

Baking & Pastry Technologies is a look into the scientific side of baking. Baking & Pastry Technologies is dedicated to teaching different scenarios, and reactions of ingredients, while baking. The lab element gives the experience of seeing different reactions of ingredients in baking; knowing, by looking at finished products, what works best and what may ruin the project. At the completion of this course, the student will have basic knowledge of the scientific breakdown that goes into the formulas of baking. This course will enable graduates to be better prepared to gain positions as a pastry chef or patisserie.
Credits 3
Lab Hours 5
Class Hours 1

CULA151L : Culinary Fundamentals

This course encompasses the basic fundamental principles for a career in Culinary Arts. Each subject will be discussed and practiced in detail. This class will emphasize the importance of such terms and procedures as “mise en place”, knife skills, proper use of tools and several other basic principles that are important to the culinary industry. This course will also emphasize the appropriate standard of behavior and uniform that is set by culinary professionals. At the end of this course, students will have a core knowledge and insight into the essential aspects of Culinary Arts.
Credits 3
Lab Hours 6
Class Hours 1

CULA152L : Sanitation & Safety

This course offers a look into the fundamentals of food service sanitation and safety. Students will demonstrate knowledge of proper hot and cold food handling procedures, cross contamination of ready-to-eat foods, proper receiving practices, proper storage guidelines, who is affected by improper food handling, and federal/state food service sanitation requirements. When this course is completed, the student will test for the ServSafe certification.
Credits 3
Lab Hours 0
Class Hours 3

CULA158L : Restaurant Facility & Menu Design

Both menu and facility design are important aspects of the restaurant industry. This course gives students realistic practice at mastering both. Students will practice proper menu layout as well as its design. Students will learn the importance of cross-utilization and how to optimize it. This course will give students the opportunity to see different writing styles of menus including a la carte, rotating, and institutional menus. Different types of culinary establishments will be discussed as well as the equipment needed for them. Students will be designing menus to match kitchen layouts through projects conducted one-on-one with the instructor.
Credits 3
Lab Hours 0
Class Hours 3

CULA159L : Cost Control

This course covers such subjects as pricing menus, food costing equations, weights and measurements, scaling, yield testing, food cost percentages, inventories, and recipe conversions. The student will be expected to cost out recipes to find per portion costs as well as multiportion costs. This course discusses money saving techniques, waste control, and the importance of portion size as it relates to menu prices. Beverage costing, as well as alcohol procurement, will also be examined. The Shaker Table'92s menus, inventories, and recipes will be exposed for practical use through projects or discussion conducted by the instructor.
Credits 3
Lab Hours 0
Class Hours 3

CULA210L : Nutritional & Alternative Baking

This course introduces students into not only the nutritional aspects of baking, but the alternative baking world. Alternative baking includes such subjects as gluten free, sugar free, dairy free, and other allergy sensitive baking procedures. Nutritional aspects cover such subjects as low fat, low sodium, carbohydrate sensitive, as well as diabetic responsive dessert composition. Focus will revolve around techniques and alternative methods of producing health-conscious pastries, product substitutions, ideas and concepts of creative alternative and nutritional desserts.
Credits 3
Lab Hours 5
Class Hours 1

CULA220L : Advanced Cake Decorating

This course is a continuation of our cake decorating course. Advanced cake decorating takes what has been learned in cake decorating and introduces new ingredients, techniques, and skill sets. Intricate piping techniques are demonstrated and practiced. The uses of ingredients such as rolled fondant, gum paste, royal icing and molding chocolate will be established. Advanced cake styles and wedding cakes will be practiced. This is a fifteen-week course that will provide students with the enhanced knowledge, techniques and proficiency of cake decorating.
Credits 3
Lab Hours 5
Class Hours 1
Prerequisite Courses
CULA148L: Cake Decorating

CULA225L : Advanced Pastry and Confections

In this course the student will learn an array of international pastries and advanced pastry methods, techniques, and showpieces. The student will be introduced to chocolate tempering, shaping, basic show piece construction and candy making. Subjects such as pastiage, pouring sugar and confection artistry will also be confection artistry will also be covered, researched, and practiced. Students will fine tune their skills and challenge themselves both technically and artistically.
Credits 3
Lab Hours 5
Class Hours 1
Prerequisite Courses
CULA146L: Bakery Production

CULA230L : Pastry Arts Cooperative Education

This course provides the opportunity for the student to utilize baking and pastry course competencies in a real-life setting along with supplemental laboratory experience on the extensive array of equipment and processes.
Credits 3
Lab Hours 9
Class Hours 0
Prerequisites
Permission of Instructor

CULA231L : Pastry Arts Capstone

This course provides the vehicle for students to demonstrate overall competency in baking and pastry and in the specific operations in which they have chosen to concentrate. Under the supervision of a faculty advisor, working individually or as part of a team, the student will select and successfully carry out a major project which pertains directly to baking and pastry operations.
Credits 1
Lab Hours 0
Class Hours 1

CULA232L : Culinary Cooperative Education

Co-operative education provides the opportunity for students to utilize learned culinary course competencies in a real-life setting. This course provides supplemental laboratory experience on the extensive array of equipment, ingredients, and processes. Students will gain valuable experience and first-hand knowledge as to what a career in the Culinary Arts field outside the classroom entails. Students are expected to complete 300 hours of co-op experience. Instructor'92s approval of workplace site required.
Credits 3
Lab Hours 9
Class Hours 0
Prerequisite Courses
CULA151L: Culinary Fundamentals

CULA253L : Introduction to Garde Manger

This course offers an insight into the “cold side” of the restaurant industry. The student during this course will be responsible for researching Garde Manger techniques as well as practicing those techniques. The student will be inspired to practice classic Garde Manger skills through a series of projects created by the instructor. Such skills and techniques include preparation of: cured meats, aspic and chaud froid, terrines and pates, crudites platters, cheese displays, smoked foods, cold sauces and dressings, salads, hors d'92oeuvres, and buffet design/layout. Presentations by guest speakers and visiting chefs as well as off-site demonstrations/ applications will enhance student skill sets.
Credits 3
Lab Hours 6
Class Hours 1

CULA254L : Classical Cuisine

This course will explore the history of classical cuisine and its origins. The accomplishments of our forefathers will be explored and their impact on cooking discussed. Students will absorb these concepts and hone their techniques in order to apply them to modern day cooking. Historical chefs like Escoffier and Careme will be introduced and explored. Classical cuisine will be an overview of how cooking has evolved throughout time and will conclude with modern technology, equipment development, and the evolution of food products.
Credits 3
Lab Hours 6
Class Hours 1

CULA255L : Italian Cuisine

Students will enhance their cooking skills by studying cooking techniques and cultural aspects that deal in-depth with Italian cookery. Students will rotate through each station in preparing new menu items. Students will be expected to follow recipes in preparing dishes from each of the regions in Italy. This course will reinforce both classical and modern cooking techniques.
Credits 3
Lab Hours 6
Class Hours 1

CULA256L : U.S. Regional & Infusion Cuisine

This course will give an overview of food origins and how they have shaped our modern-day cuisine. Students will focus on a variety of cultural and regional cuisines throughout the United States. The trend towards cross-cultural cuisines, and the eclectic foods they produce, will be discussed in depth. Students will learn how to create dishes using various cultural ingredients. Preparation, plating, and garnishing techniques will be addressed.
Credits 3
Lab Hours 6
Class Hours 1

Early Childhood Education

ECE121L : Growth and Development of the Young Child

An introduction to the child, from birth to age eight, as a learner and family member with needs to explore and communicate, as well as to develop social competence. Explanation of current themes of child development is provided with special emphasis on understanding children'92s developmental levels through childhood. Topics covered include: conception, heredity and prenatal development, infant development, the child in the family, toddlerhood and early childhood. Observation in a childcare center or preschool setting is a requirement of this course.
Credits 3
Lab Hours 0
Class Hours 3

ECE122L : Curriculum Development in Early Childhood

The design, implementation, and evaluation of appropriate programs for young children through age six. The course focuses on the concrete, practical application of various theories, philosophies, and current research data in the field. Other topics include: the young child as explorer and learner, language, numbers, art and the world, and the effective teacher of young children. Observation in a childcare center or preschool setting is a requirement of this course.
Credits 3
Lab Hours 0
Class Hours 3

ECE123L : Foundations of Early Childhood Education

This course covers the history of early childhood education and childcare, including the contributions of Froebel, Montessori, and Wheelock. The course concentrates on a diversity of programs including childcare, Head Start, kindergarten and nursery. Profit and non-profit programs will be examined. Discussion includes historical perspectives, current trends, theories and approaches to the care, development, and education of young children. Observation in a childcare center or preschool setting is a requirement of this course.
Credits 3
Lab Hours 0
Class Hours 3

ECE124L : Health, Safety, and Nutrition in Early Childhood Education

This course offers an introduction to the needs and best practice in health, safety, and nutrition for young children. Nutrition and policy considerations about medication administration, infectious disease control, sick childcare, universal precautions and liability, and health record keeping will be discussed. Students will be able to develop menus for meals and snacks which are nutritious, appealing and age appropriate. Recognition and treatment of child abuse victims, emergency preparedness, infectious disease prevention and control, administering medication and safe environments including safe sleep will be addressed.

It should be noted that CPR and First Aid are NOT part of the course.
Credits 3
Lab Hours 0
Class Hours 3

ECE126L : Infant/Toddler Development

This course focuses on developmentally appropriate practices for infant/toddler caregivers. Students will explore various theoretical perspectives on infant/toddler development and the pragmatics of caring for young children in early childhood settings. A study of important influences on infant and toddler development, with emphasis on the role and responsibilities of parents and caregivers in creating high quality, supportive environments with sensitivity to attachment and the importance of communication skills in nurturing positive parent/teacher/child relationships. Observation in a childcare center or preschool setting is a requirement of this course.

Credits 3
Lab Hours 0
Class Hours 3

ECE162L : Independent Study in Early Childhood Education

In order to develop appropriate attitudes and skills, and to effectively apply knowledge to the care and education of young children, the student works in a licensed and approved setting under the supervision of a qualified professional. Periodic conferences between the supervisor and the practicum instructor evaluate the student'92s progress. At the close of the semester the student submits documentation relating to the student'92s practicum learning experiences. Work at the practicum site along with self-reflection and disclosure documented with journaling combine to create a structure that promotes and supports personal and professional growth.

Credits 1
Lab Hours 3
Class Hours 0
Prerequisites
ECE121 or ECE126L and ECE122L

ECE165L : Practicum I - Observation, Assessment, and Documentation

Practicum I is the first of two practicum experiences where the students conduct an in-depth child study that includes documenting, interpreting, and assessing child observations. Students create, manage, and use portfolio documentation to generate invitations that support a child's individual goals (set by the student, mentor teacher, and family of the child). Students summarize, in narrative form, a child's growth in developmental domains. All of this is used to plan out two parent conferences. Students will complete 60 Practicum hours at a college approved Early Childhood program and may not be able to complete hours at their worksite.

Credits 3
Lab Hours 6
Class Hours 1
Prerequisites
ECE121L, ECE123L, ECE124L, and ECE126L. ECE126L may be taken concurrently.

ECE210L : Positive Behavior Guidance in ECE

The emphasis of this course is on the role of positive child guidance in supporting young children's healthy social and emotional development. The pyramid model will serve as the conceptual framework for evidence-based practices and intervention approaches. The course will focus on the three main overarching themes: promotion of all children's social and emotional development, prevention strategies for at risk children, and individual & intensive interventions for children with persistent challenges. Access to an Early Childhood program is required in order to complete an ongoing and in-depth case study.

Credits 3
Lab Hours 0
Class Hours 3
Prerequisite Courses
ECE121L: Growth and Development of the Young Child

ECE212L : Teaching with Technology

This course presents theory and strategies for effective integration of technology resources and technology-based methods of instruction to enhance and extend student learning. The role of technology in the classroom with regard to student use, teacher productivity, and communication will be explored, including assistive technology designed for students with disabilities, to discover ways in which technology supports differentiated instruction. State and National technology standards will be addressed with respect to planning curricula and technology-based activities.

Credits 3
Lab Hours 0
Class Hours 3

ECE216L : Teaching Young Children with Exceptionalities

The course will focus on the unique characteristics of young children and families with disabilities, delays, and/or risks, including communication disorders, sensory impairments, physical and health related disabilities, child abuse, stress, and trauma. Students learn how to develop curriculum modification/accommodation strategies in all domains of development in an inclusive classroom setting or other natural environment including the use of appropriate assistive technologies. Create a supportive environment for children learning to use assistive technologies. Screening, assessment, early intervention, individual education plans, inclusive education, community resources and family issues will also be presented and discussed.

Credits 3
Lab Hours 0
Class Hours 3

ECE224L : Teaching STEAM

This course will focus on designing, implementing, and evaluating appropriate activities and environments for children infant to age 8 with a focus on blocks, math, science, woodworking, and technology with literacy and art concepts integrated into each area. Emphasis will be on the concrete, practical application of different philosophies, theories, and current research that is manifested in various curriculum models in early childhood education. Students will dialogue and reflect together as they explore the cycle Emphasis will be on planning stimulating, age-appropriate classroom and outdoor learning environments that encourage child-initiated discovery and act as a tool in behavior management. These environments will be child and family friendly, barrier free, inclusionary, and meet state regulatory requirements. Students will learn about and apply successful attributes of documentation that make their learning and children's learning visible.

Credits 3
Lab Hours 0
Class Hours 3

ECE225L : Art, Music, Drama and Movement

This course focuses on nurturing creativity in young children through developmental^ appropriate activities in the areas of art, music, drama, and movement. The various methods and materials used to stimulate a young child'92s creative impulses will be explored, as well as the developmental stages of artistic growth. Observation in a childcare center or preschool setting is a requirement of this course.

Credits 3
Lab Hours 0
Class Hours 3

ECE230L : Developing and Administering a Child Care and Education Program

This course will provide a comprehensive study of the operation of an early childhood education childcare facility. Staffing and supervision, including orientation, training, and motivation and evaluating staff are explored as they relate to the business of childcare. Students develop business and marketing plans according to accepted business standards. New Hampshire Child Care Standards and licensing requirements, Child Care Development Block Grant, and funding sources are included. Observation in a childcare center or preschool setting is a requirement of this course.

Credits 3
Lab Hours 0
Class Hours 3

ECE231L : Language and Literacy Development in Early Childhood

The development of language and literacy, components of a language rich environment, language arts Curriculum, and approaches to reading and writing instruction will also be explored. This course is designed to provide an overview of developmentally and interest appropriate literature and language arts curriculum for young children. It will afford an opportunity to: explore the various genres, recognize the value of literature to children's development, become familiar with exemplary authors and illustrators of children's literature, and learn ways to extend and enhance literature for young children.
Credits 3
Lab Hours 0
Class Hours 3

ECE265L : Practicum II - Exploring Teaching, Curriculum Implantation

Practicum II is the second of two Practicum experiences where students assume teacher responsibilities in a different Early Childhood setting (i.e. infant/toddler; preschool; Head Start, Special Education, kindergarten or school-age program) than ECE165, under guided supervision with a qualified mentoring teacher. Students will practice intentional teaching in their work with young children by planning and implementing activities and preparing an environment for their classroom. Students will complete 130 Practicum hours at a college approved Early Childhood program and may not be able to complete hours at their worksite.
Credits 4
Lab Hours 9
Class Hours 1
Prerequisites
ECE165L, ECE122L and 230L. ECE 122L and ECE230L may be taken concurrently.

Electrical Technologies

ETEC123L : Wiring Theory and Techniques (Commercial)

This course covers commercial building wiring, blueprint reading, branch circuit installations, and service entrance installations based on the National Electrical Code. The following topics will be covered: interpretation of plans, branch circuit installations, feeder installations and calculations, service entrance calculations and installations, and low-voltage installations.
Credits 6
Lab Hours 6
Class Hours 4
Prerequisites
ETEC126L or Permission of Instructor

ETEC124L : AC/DC Theory

This course is designed to introduce concepts of electricity involving the behavior of both direct and alternating current circuits.
Credits 5
Lab Hours 3
Class Hours 4

ETEC126L : Residential Wiring and Electrical Blueprint Reading

This course covers electrical theory, circuit analysis, techniques used in residential wiring, and reading electrical blueprints. The following topics will be covered: electrical safety, tools of the trade, blueprint reading, branch circuit calculations, load calculations, wiring devices, GFCI and AFCI, lighting circuits, types of luminaire, installation of ranges and dryers, hot water tanks, and residential services.
Credits 3
Lab Hours 0
Class Hours 3

ETEC127L : Residential Wiring and Electrical Blueprint Reading Lab

This course covers the lab portion of electrical circuit analysis techniques used in residential wiring and reading electrical blueprints. The following topics will be covered: safety in the lab, proper use of tools, soldering and splicing techniques, single pole switching, duplex receptacle wiring, 3-way switching, 4-way switching, GFCI and AFCI wiring, BX, AC, and MC installations, low voltage switching, range and dryer wiring, and hot water tank wiring, and residential services (main panel) and (subpanels).
Credits 2
Lab Hours 6
Class Hours 0

ETEC128L : Fundamentals of Electrical Controls

Industrial motor control fundamentals are covered, as well as the basic theory of magnetic controls, control components, pilot devices, control circuit diagrams and troubleshooting.
Credits 4
Lab Hours 6
Class Hours 2
Prerequisites
ETEC124L or Permission of Instructor

ETEC130L : Rotating Machinery

This course covers the concepts of rotating electrical machinery beginning with magnetism and induction, conductor thrust and torque, and then progresses to motor basics such as nameplates, mechanical design, troubleshooting and protection. Each major classification of electric motor design and operation is studied in detail in the classroom and proven in the laboratory environment.
Credits 4
Lab Hours 6
Class Hours 2
Prerequisite Courses
ETEC124L: AC/DC Theory

ETEC141L : NEC I

National Electrical Cole I introduces the student to the structure, interpretation, enforcement, and compliance with NFPA 70, the code to which all electrical installations shall conform. Students will learn the scope of the document and common definitions of terms used, basic requirements for all electrical installations, proper sizing and wiring of branch circuits, and sizing and installing feeders and services. This course also covers the proper sizing and application of over current protection and requirements for grounding and bonding of electrical systems.
Credits 2
Lab Hours 0
Class Hours 2

ETEC142L : NEC II

National Electrical Code II covers general requirements for wiring methods and materials used in electrical installations, such as conductor selection and rating and electrical box selection and sizing. This course also covers the uses permitted and uses not permitted for all cable and raceway-based wiring methods recognized by the Code. Students will also learn the codes associated with Equipment for General Use, including switches, receptacles, luminaires, panel boards and heating systems.
Credits 2
Lab Hours 0
Class Hours 2

ETEC143L : NEC III

National Electrical Code III covers the proper sizing of protection for electric motor, air conditioning, and transformer equipment installations. Students will also learn the requirements for hazardous locations, swimming pools, renewable energy and stand by power generation systems. Students will also conduct calculations and locating rules and regulations in the code.
Credits 2
Lab Hours 0
Class Hours 2

ETEC210L : Introduction to Electrical Estimating and Design

This course uses computer-aided programs. The following topics will be covered: introduction to estimating concepts, computer-aided electrical estimating, and developing an estimate using an electrical blueprint.
Credits 3
Lab Hours 2
Class Hours 2

ETEC215L : Photovoltaics

This course introduces the principles of photovoltaics; including the basics of safety, the electrical basics of solar PV systems, and how modules are designed and combined with other system components. Participants will learn how to decide upon the size, electrical and mechanical design of a PV system, as well as how to analyze and troubleshoot problems. The lab portion of the course will include hands-on installation of PV systems on mock roofs and ground mounts. This PV Entry Level course but will serve as an important first step in preparing individuals to become highly skilled, qualified, and experienced trades people in the PV industry. Students should have a basic understanding of electricity fundamentals before enrolling in this course. Credit will not be given for more than one of the following courses: ETEC215L or ESTC150L.

Credits 3
Lab Hours 3
Class Hours 2
Prerequisite Courses
ETEC124L: AC/DC Theory

ETEC224L : Wiring Theory and Techniques (Industrial)

Industrial building wiring, blueprint reading, transformer connections, "high-voltage" installations, motor circuit theory and lighting designs are covered, as well as interpretations of plans, transformer connections, "high-voltage" installations, motor circuit theory, and lighting designs and applications.

Credits 4
Lab Hours 3
Class Hours 3
Prerequisite Courses
ETEC123L: Wiring Theory and Techniques (Commercial)

ETEC230L : Electrical Motor Controls

The course covers control fundamentals incorporating control relays, contactors, and motor starters, as well as an introduction to solid state motor controls.

Credits 3
Lab Hours 3
Class Hours 2
Prerequisites
ETEC124L or Permission of Instructor

ETEC234L : Construction Site Safety

This course provides students with training in OSHA regulations for safety and health in the construction industry, as well as safe working practices for electricians servicing electrically live installations mandated by NFPA 70E.

Credits 3
Lab Hours 0
Class Hours 3

ETEC235L : Programmable Controllers

This course covers industrial programmable controllers and program writing including; but not limited to, Boolean Algebra directly related to elementary circuit analysis, basic relay logic programming, program control instructions, sequence instructions, data manipulation, math instructions, program editing and troubleshooting.

Credits 4
Lab Hours 4
Class Hours 3
Prerequisites
ETEC128L or Permission of Instructor

ETEC240L : Stationary Machinery

A review of magnetism and electromagnetism and the design and operational characteristics of single-phase, three-phase and specialty transformer connections are covered in this course.

Credits 4
Lab Hours 6
Class Hours 2
Prerequisite Courses
ETEC124L: AC/DC Theory
ETEC130L: Rotating Machinery

Electro-Mechanical Technologies

ELMT120L : Fluid Power Systems
Students will be introduced to the fundamentals of hydraulic and pneumatic power system safety, operation, basic circuit connections, and 3, 4, and 5-way cylinder circuit function. Hydraulic power system topics include basic hydraulic circuits, pumps, principles of pressure and flow, speed control, pressure control, sequence and reducing valves. Pneumatic power system coverage includes single acting cylinders, motor circuits, leverage, volume, pressure and flow, air flow resistance, flow control, and flow measurement.
Credits 4
Lab Hours 6
Class Hours 2

ELMT210L : Mechanical Drive Systems
In this course, students will learn the concepts of mechanical power transmission through the many types of mechanical drive systems in modern machinery. Mechanical power system safety is focused on throughout this course. Topics include machine and electric motor mounting, motor shaft and keyway features, measuring speed, torque, power, and efficiency, mechanical shaft bearing, coupling, and alignment, as well as v-belt, chain, spur gear, and multiple shaft drives.
Credits 4
Lab Hours 4
Class Hours 2

ELMT270L : Electro-Mechanical Capstone
This course provides the vehicle for students to demonstrate overall competency in advanced manufacturing and in the specific operations in which they have chosen to concentrate under the supervision of a faculty advisor, working individually or as part of a team, the students will select and successfully carry out a major project which pertains directly to electromechanical technologies.
Credits 3
Lab Hours 0
Class Hours 3

ELMT280L : Electro-Mechanical Internship
This course provides the opportunity for the student to utilize learned course competencies in a real-life setting. A supplemental laboratory experience on an extensive array of equipment and processes may be provided. Resume, cover letter, weekly journal, and employer evaluation are required. Student'92s needs to work a minimum of 300 hours in a manufacturing job related environment.
Credits 3
Lab Hours 9
Class Hours 0
Prerequisites
A cumulative GPA of 2.0 or higher.

English

ENGL100L : English Composition
In this course, students will be presented with critical thinking strategies that will be used to effectively convey meaning and thought in analytical terms. Students will learn to write concisely through the use of the writing process and integration of information literacy and Meta-literacy strategies.
Credits 4
Lab Hours 0
Class Hours 4
Prerequisites
SAT scores or competence as demonstrated on placement exam.

ENGL124L : Business Communications
Effective communication strategies and writing techniques that inform much of the business world are introduced and examined. Emphasis is placed on developing an awareness of professional conventions and genres while building tangible skills relating to research, design, collaboration, and writing. (ENGL100L may be taken concurrently)
Credits 3
Lab Hours 0
Class Hours 3

ENGL223L : Survey of American Literature
An overview of how America's best-known thinkers, authors and poets have reflected and influenced culture, this course takes an historical approach to studying literature from colonial to contemporary times. (ENGL100L may be taken concurrently)
Credits 3
Lab Hours 0
Class Hours 3

ENGL224L : The American Short Story

Early, modern, and contemporary short stories are read closely and analyzed for theme, plot development, character study and author'92s style. Stories are placed in their historical context. (ENGL100L may be taken concurrently)
Credits 3
Lab Hours 0
Class Hours 3

ENGL225L : Film as Literature

The world is full of moving images. Think of the number of movies you have seen this month. Think of the number of video recordings that are uploaded to YouTube every minute. In a world where screens have become more prevalent, it makes sense that we should expand our understanding of what is considered a text. This course explores film as literary text, more specifically focusing on how theme is developed through this medium. These emerging ideas and observations will then be considered within the larger framework of providing new perspectives on societal and cultural concerns.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisites
ENGL100L may be taken concurrently or POI.

ENGL235L : Creating Writing: Nonfiction

This course focuses on the reading and writing of creative nonfiction or, in essence, "true stories well told." Students will be creative in their study and use of literary techniques to present factually accurate prose about real people and events in a compelling and dramatic manner with the goal being to make nonfiction stories read like fiction. Nonfiction includes a broad category of prose works such as personal and narrative essays, memoirs, travel writing, observational or descriptive essays, and so on. Professional and student work will be read, and workshopped throughout the semester. (ENGL100L may be taken concurrently)
Credits 3
Lab Hours 0
Class Hours 3

ENGL236L : Creative Writing: Fiction, Poetry, and Drama

Through their writing, students will strive to make the ordinary extraordinary in this course. While honing their creative writing skills by writing short fiction, poetry, and drama, students will also read, examine, and discuss works in the various genres. Using these readings as models for understanding, students will examine elements of style, form, and meaning while developing voice and technique. Feedback on writing will be given during workshop sessions. (ENGL100L may be taken concurrently)
Credits 3
Lab Hours 0
Class Hours 3

ENGL246L : Tolkien and the Ring of Power

The Hobbit and The Lord of the Rings by J.R.R. Tolkien are studied and analyzed. Tolkien's biography, his writing life, the origins of the stories, and their publication history, as well as his construction of a mythological world and its peoples and languages, his characters and their development, and his thematic concerns are researched. Finally, Tolkien's influence on 20th century fantasy literature is considered. (ENGL100L may be taken concurrently)
Credits 3
Lab Hours 0
Class Hours 3

ENGL251L : Introduction to Literature

This course delves into the reading and analyzing of literary works in order to develop an appreciation for the place literature has in its influence on culture and society. Selections will be taken from four literary genres: Poetry, drama, the novel, and the short story. By becoming familiar with and applying key literary terms and various approaches to literary criticism to reading, students will be able to hone their abilities to write in an analytical manner while engaging with primary and secondary sources. (ENGL100L may be taken concurrently)
Credits 3
Lab Hours 0
Class Hours 3

ENGL256L : Introduction to Drama

The basis of this course is the reading and discussion of significant plays in Western literature, from the Greeks to the present with related writing assignments. The plays are viewed within their historical and social contexts, with an emphasis on the relationship between their literary and theatrical forms. (ENGL100L may be taken concurrently)
Credits 3
Lab Hours 0
Class Hours 3

ENGL257L : The Myth of the Hero

The character of the hero, as he or she appears in the myths of different societies, is studied, and analyzed. Students explore the meanings of mythological figures, motifs, and references from a variety of perspectives. Creation and fertility myths of the world, as they impact understanding the role of the hero, are considered as well. (ENGL100L may be taken concurrently)
Credits 3
Lab Hours 0
Class Hours 3

ENGL258L : Concepts of Evil

The recognition and appropriation of the term evil is one that is being constantly negotiated in society. It is a term that represents one of the core dichotomies that defines humanity: does a man or woman act in terms of good or evil? Historically, this term has followed an evolution of sorts that begins within Platonic idealism, becomes central within the birth of the Judeo-Christian world, is grasped at through theodicy, and then fractured through the 1775 Lisbon earthquake and the horrors of Auschwitz during World War II. This course will question the concept of evil in its various forms and explanations in an attempt to better understand its historical context, but also how it has come to be used and understood in today's society. Students will read and analyze various literary, philosophical, and cultural primary and secondary texts that consider manifestations of evil in violence, suffering, scapegoating, and apathy as they appear in characters such as Satan and witches and historical circumstances such as the Grand Inquisition, a modern plague, and Nazi Germany.
Credits 3
Lab Hours 0
Class Hours 3

ENGL260L : Public Speaking

This course provides an introduction to the fundamentals of public speaking and offers students the opportunity to practice these skills through a variety of in-class speeches. Students research, prepare and deliver oral presentations. In addition, class members serve as an audience and provide feedback to their fellow classmates. (ENGL100L may be taken concurrently)
Credits 3
Lab Hours 0
Class Hours 3

ENGL299BL : Topics in Lit: Black Mirror

Episodes from the British television series, Black Mirror, have been produced and aired since 2011. Seen by many as an homage to older anthology series such as The Twilight Zone, The Outer Limits, and Alfred Hitchcock Presents, this series explores society'92s engagement with technology. Often critiquing this engagement, the series depicts dystopian situations that tie closely to current events and technological developments. To better understand the societal implications that arise from a thematic analysis, this course will explore specific episodes from Black Mirror that reflect current cultural and technological trends. As well, the course will provide a collaborative research platform for students to engage and reflection on these topics.
Credits 3
Lab Hours 0
Class Hours 3

ENGL299L : Topics in Literature

In this course, focus will be given to a particular genre, theme, or issue within literature to enable comparison and analysis of several texts. While the topics may change per semester, emphasis is placed on critical methods of thinking, reading, and writing. May be repeated for credit when course content changes; may be taken with other topics courses during the same semester. (ENGL100L may be taken concurrently)
Credits 3
Lab Hours 0
Class Hours 2

Finance

FIN180L : Personal Financial Management
This course studies the fundamental financial planning procedures and controls for personal finances to include managing assets, credit, insurance needs, budgets, retirement, and estate planning. Students will also be introduced to the concepts of investment as part of the planning procedures, as well as career planning.
Credits 3
Lab Hours 0
Class Hours 3

Fire Technologies

The Lakes Region Community College Fire Technologies Department offers a certificate and an Associate's degree in Fire Science .

The program is designed and focusses on providing entry-level education and technical skills in fire science and Emergency Medical Services (EMS) and prepares graduates for employment as members of fire departments, EMS agencies, insurance companies, and other emergency response employers.

Both tracks include the opportunity to earn Pro Board accredited National Fire Protection Association Firefighter Level I and II, Hazardous Materials Awareness and Operations certifications, and at least their National Registry of Emergency Medical Technicians certification. Students seeking their degree enroll in additional classes covering a broader range of knowledge in firefighting, fire behavior and combustion, fire prevention and protection, building construction, fire investigation, fire and life safety education, fire department administration, and EMS.

To enhance our students educational experience LRCC has partnered with fire departments throughout New Hampshire allowing our students the opportunity to work, train and even live as interns to gain practical fire and EMS experience. For those already employed in the fire service, our degree will help them both increase their knowledge and advance their career.

The Lakes Region Community College Fire Science program is recognized by the United States National Fire Academy as a Fire and Emergency Services Higher Education (FESHE) program meeting their standard of excellence.

Upon completion of our program Fire Science graduates will be able to:

1. Understand the history, development and organization of fire and emergency services departments.
2. Examine and describe the National Fire Academy FESHE Model Curriculum.
3. Compare and contrast careers in fire and emergency services.
4. Demonstrate an understanding of online learning, information literacy, time-management, self-confidence, self-motivation, and setting long and short-term career goals.
5. Explain the emergency service culture and history related to the national firefighter life safety initiatives.
6. Explain the importance of maintaining physical, mental, financial, and emotional health and wellbeing.
7. Demonstrate the basic firefighting knowledge and skills needed to become certified as a Firefighter I and Firefighter II earning Pro Board certification.
8. Demonstrate the basic knowledge and skills of an Emergency Medical Technician (EMT) for National Registry of EMTs (NREMT) certification.
9. Evaluate laws, rules, regulations, and codes as they relate to fire prevention.
10. Explain how code enforcement as it impacts life and property loss.
11. Identify and summarize the fundamental theories of fire behavior and combustion.
12. Identify and describe various types and uses of fire protection systems and extinguishing agents.
13. Describe the basic elements of a public water supply system as it relates to fire protection.

14. Identify various classifications of building construction and describe how fire impacts major types of building construction.

15. Understand the value of higher education to the professionalization of the fire and EMS service.

FIRE124L : Principles of Emergency Services

This course provides an overview to fire protection and emergency services; career opportunities in fire protection and related fields; culture and history of emergency services; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fore protection systems, introduction to fire strategy and tactics; life safety initiatives.
Credits 3
Lab Hours 0
Class Hours 3

FIRE127L : Fire Behavior and Combustion

This course explores the theories and fundamentals of how and why fires start, spread and are controlled.
Credits 3
Lab Hours 0
Class Hours 3

FIRE131L : Fire Protection Systems

This course provides information relating to the features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers.
Credits 3
Lab Hours 0
Class Hours 3

FIRE136L : Fire-ground Procedures

This course teaches the student basic fire-ground procedures including fire department organization, forcible entry, fire behavior, personal protective equipment, and other related subjects necessary for entry-level firefighters. Successful completion of this course certifies the student in Firefighter I through the State of NH Fire Standards and Training.
Credits 6
Lab Hours 12
Class Hours 2

FIRE140L : Building Construction for Fire Protection

This course provides the components of building construction related to firefighter and life safety. The elements of construction and design of structures are shown to be key factors when inspecting building, preplanning fire operations, and operating at emergencies.
Credits 3
Lab Hours 0
Class Hours 3

FIRE160L : Fire Prevention

This course provides fundamental knowledge relating to the field of fire prevention. Topics include: history and philosophy of fire prevention; organization and operation of a fire prevention bureau; use and application of codes and standards; plans review; fire inspections; fire and life safety education; and fire investigation.
Credits 3
Lab Hours 0
Class Hours 3

FIRE180L : Firefighter I & II

This course teaches the student basic and advance fireground topics including fire department organization, fire behavior, personal protective equipment, fire attack hose handling, ventilation, rescue skills, incident command, vehicle extraction, water supply, and other subjects necessary for entry-level firefighters. Successful completion of this course provides PRO BOARD certification in Firefighter I and II through the New Hampshire Fire Standards and Training Commission.
Credits 8
Lab Hours 12
Class Hours 4

FIRE200L : Advanced Fire-Ground Procedures

Teaches the student advanced fire-ground procedures, incident command system, vehicle rescue and extrication, water supply, foam streams, detection systems, and other related subjects necessary for entry-level firefighters. Successful completion of this course certifies the student in Firefighter II through the State of NH Fire Standards and Training.
Credits 3
Lab Hours 6
Class Hours 1
Prerequisite Courses
FIRE136L: Fire-ground Procedures

FIRE210L : Fire Inspector I

This course provides the student with than in-depth review of the skills attendant to the duties of a Fire Inspector. The student will learn the minimum tasks required of a Fire Inspector. Included in this course are research, interpretation of codes, implementing policy, testifying at legal proceedings, creating forms and job aids, code enforcement inspections and analysis of new and existing structures of this course certifies the student in Fire Inspector I through the state of NH Fire and Standards and Training.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisite Courses
FIRE131L: Fire Protection Systems
FIRE140L: Building Construction for Fire Protection
FIRE160L: Fire Prevention

FIRE224L : Strategy and Tactics

This course provides the principles of fire-ground control through utilization of personal, equipment, and extinguishing agents.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisite Courses
FIRE127L: Fire Behavior and Combustion
FIRE140L: Building Construction for Fire Protection

FIRE225L : Emergency Medical Technician - Basic

This course covers all emergency medical techniques required of the Emergency Medical Technicians in the provision of emergency care with an ambulance/fire service. Successful completion of the course allows the student to sit for the National Registry of Emergency Technicians'92 written and practical examination.
Credits 3
Lab Hours 6
Class Hours 1

FIRE230L : Advanced Fire Codes and Standards

This course prepares the student to use fire codes and standards at an advanced level. An in-depth study of common fire codes provides the student with the knowledge needed to perform fire inspections and fire investigations, review fire protection system designs, understand electrical installations and have the resources to answer code related questions pertaining to fire protection.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisite Courses
FIRE160L: Fire Prevention

FIRE231L : Hazardous Material Chemistry

This course provides basic chemistry relating to the categories of hazardous materials including recognition, identification, reactivity, and health hazards encountered by emergency services.
Credits 3
Lab Hours 0
Class Hours 3

FIRE234L : Fire & Emergency Services Safety & Survival

This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisite Courses
FIRE224L: Strategy and Tactics

FIRE236L : Fire Investigation I

This course is intended to provide the students with the fundamentals and technical knowledge needed for proper fire scene interpretations, including recognizing, and conducting origin and cause, preservation of evidence and documentation, scene security, motives of the fire-setter, and types of fire causes.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisite Courses
FIRE127L: Fire Behavior and Combustion
FIRE140L: Building Construction for Fire Protection

FIRE237L : Fire Investigation II

This course is intended to provide the student with advanced technical knowledge on the rule of law, fire scene analysis, fire behavior, evidence collection and preservation, scene documentation, case preparation and court-room testimony.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisite Courses
FIRE236L: Fire Investigation I

FIRE238L : Advanced Emergency Medical Technician

This course covers the knowledge and skill of the Advanced Emergency Medical Technician to prepare the student for a career in the fields of Emergency Medical Services or Fire Science. Successful completion of this course and related clinical requirements enables the student to become eligible for the National Registry of Emergency Medical Technicians (NREMT), cognitive and psychomotor examinations.
Credits 6
Lab Hours 6
Class Hours 4
Prerequisites
FIRE2250L, Nationally Registered EMT (NREMT), or EMT-Basic (NREMT-B), or State EMT with instructor approval; American Heart Association BLS for the Healthcare Provider Certification (or approved equivalent); Criminal record free of felony convictions.

FIRE243L : Educational Methodology

Educational Methodology explores the learning and teaching processes. The course covers behavioral objectives, lesson plans, training aids, factors that influence the learning climate, learning disabilities, testing and measurement, method of instruction, and other pertinent topics conducive to the field of education. This course prepares students to complete the Fire Instructor I program with the State of New Hampshire Fire Standards and Training Commission.
Credits 3
Lab Hours 0
Class Hours 3

FIRE245L : Fire & Life Safety Education

This course provides information relating to the field of fire and life safety education.
Credits 3
Lab Hours 0
Class Hours 3

FIRE250L : Fire Protection Hydraulics and Water Supply

This course provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisites
MATH0610L or required math elective

FIRE251L : Fire Protection Hydraulics and Water Supply Unit 2

Study of fire protection hydraulics including fire flow and friction loss calculations for fire streams using mobile fire pumps.
Credits 2
Lab Hours 0
Class Hours 2
Prerequisites
Permission of Department Chair

FIRE252L : Fire Protection and Water Supply Unit 3

This course offers a study of fire protection hydraulics including fire flow and friction loss calculation for underground and above ground water distribution systems.
Credits 1
Lab Hours 0
Class Hours 1
Prerequisites
FIRE2502L

FIRE255L : Occupational Health and Safety for Emergency Services

This course introduces the basic concepts of occupational health and safety as it relates to emergency service organizations. Topics include risk and hazard evaluations and control procedures for emergency service organizations.
Credits 3
Lab Hours 0
Class Hours 3

FIRE256L : Community Fire and Risk Analysis

This course provides training in analyzing data, identifying problems, and formulating objectives, analyzing casual factors, developing selection criteria, identifying alternative solutions, developing implementation strategies, and designing an evaluation plan. Upon completion, the student will be able to evaluate the community needs associated with all hazards, to select and evaluate the most efficient system in developing community fire protection programs, and to define and design a fire and life safety system for a jurisdiction.
Credits 3
Lab Hours 0
Class Hours 3

FIRE269L : Legal Aspects of Emergency Services

This course will address the Federal, State, and local laws that regulate emergency services and include a review of national standards, regulations, and consensus standards.
Credits 3
Lab Hours 0
Class Hours 3

FIRE281L : Fire and Emergency Services Administration

This course introduces the student to the organization and management of a fire and emergency services department and the relationship of government agencies to the fire service. Emphasis is placed on fire and emergency service, ethics and leadership from perspective of the company officer.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisite Courses
FIRE124L: Principles of Emergency Services

Foreign Languages

FREN120L : Elementary French I

This course is open to students with little or no prior experience in the language. It stresses the four basic skills of listening, speaking, reading, and writing, as well as the language in a cultural setting.
Credits 3
Lab Hours 0
Class Hours 3

FREN121L : Elementary French II

This course offers a continuation of FREN120L with the same emphasis on listening, speaking, reading, and writing.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisite Courses
FREN120L: Elementary French I

SPAN120L : Spanish Language and Culture

The study of the Spanish language in context exploring the culture of the Spanish speaking areas of the world in both contemporary and historical frameworks. Developing awareness, understanding and appreciation of the culture, products, practices, and perspectives. Students will begin to develop Spanish language proficiency in interpersonal, interpretive, and presentational modes of communication through individual & group work and topical discussions using authentic and studio-based multi-media materials.
Credits 3
Lab Hours 0
Class Hours 3

SPAN121L : Spanish Language and Society

The study of the Spanish language through the investigation of major currents of change in modern Spanish-speaking societies. Topics include, but not limited to, political climate, environment, immigration, health, social justice, gender issues, technology, the arts education etc. This class will provide knowledge and skills that are increasingly essential in global society. Students will begin to develop Spanish language proficiency in interpersonal, interpretative, and presentational modes of communication through individual and group work and topical discussions using authentic and studio-based multi-media materials.
Credits 3
Lab Hours 0
Class Hours 3

Graphic Design

GRA120L : Design Software Essentials

In Design Software Essentials, students cover the necessary functions of Photoshop and Illustrator. These are the two major 2D image creation and editing software. These programs form the foundation of digital imaging in both print screen and video graphics. Students will learn through several lab assignments that cover pixel manipulation, composing, adjusting, and resizing in Photoshop. In Illustrator, students will learn how to properly and efficiently manipulate vectors; how to create and use color properly, and finally how to efficiently output vector images for screen or print. Concepts learned in this course carry over into animation, motion graphics, 3D design, and more.
Credits 3
Lab Hours 2
Class Hours 3

GRA125L : Foundations of Design

This course covers the major principles and elements of design, which form the basis for visual communications by introducing students to creative processes in which designers use to create work. Students will explore the formal qualities of design through projects centering around the visual use of Line, Shape, Value, Color, Form, Texture, Space, and Composition.
Credits 3
Lab Hours 2
Class Hours 2

GRA127L : UX Foundations

User Experience (UK) involves a person'92s behaviors, attitudes, and emotions about using or anticipating using a particular product, system, or service. This course uses straight-forward introductions, the tools of the trade, and more detailed workflows to develop a unique user experience for a fictitious company'92s product or services.
Credits 3
Lab Hours 3
Class Hours 2
Prerequisites
GRA120L and GRA125L

GRA134L : Typography and Layout Design

This course is designed to introduce students to the basics of Typography, Lettering, and Layout Design as it relates to various design environments, from signage to long-form text. Students will study the various classifications of type, as well as type anatomy, and the historical and cultural context of font design. Students will solve visual design and layout problems using Adobe Photoshop, InDesign, and Illustrator.
Credits 3
Lab Hours 2
Class Hours 2

GRA136L : Digital Illustration

In this course students will create work exploring the diverse field of illustration — from editorial, to visual development, to comics. Students become acquainted with the Digital Painting Program, Procreate for the iPad, as leveraged by illustrators in the industry
Credits 3
Lab Hours 2
Class Hours 2

GRA138L : History of Design and Illustration

This course will explore the history of visual communication with a focus on illustration and design. Students will examine styles and techniques from both Western and non-Western traditions, and the emergence of new design technologies throughout history. This course will encourage a thoughtful, critical analysis with regards to social responsibility within the arts, and issues relating to representation and equity within the modern Design and Illustration worlds.
Credits 3
Lab Hours 2
Class Hours 2

GRA226L : CMS Basics

Focusing on online use, a Content Management System (CMS) is an application that allows a developer to create, manage, store, and deploy content on web pages that can easily be edited and maintained by a client. Students are exposed to the different companies offering CMS services, and how to implement, manage, and customize a basic CMS presence.
Credits 3
Lab Hours 3
Class Hours 2
Prerequisite Courses
GRA120L: Design Software Essentials

GRA227L : CMS Customizing

This course goes beyond basic CMS implementation and tasks the student with developing a custom CMS child theme. Students use a standard CMS Theme as a base for a custom child theme and develop a new custom layout with HTML, CSS, and JavaScript.
Credits 3
Lab Hours 3
Class Hours 2
Prerequisites
GRA120L and GRA226L

GRA228L : Motion Graphics

This course introduces the fundamental principles of expression through movement in time, sequential composition editing, and image sequence and as well as sound integration, editing and story structure using current digital software. Students explore the techniques and software to incorporate illustrations and graphics into moving animated designs in both 2D and 3D using Blender, Photoshop, and other current software for gaming designs. Students develop sketches for a series of short projects to apply basic animation principles.
Credits 3
Lab Hours 3
Class Hours 2
Prerequisite Courses
GRA120L: Design Software Essentials
GRA136L: Digital Illustration

GRA229L : e-Commerce Basics

Electronic commerce (ecommerce) is an industry where the buying and selling of products and services are conducted online. In this course students develop an ecommerce site using a standard CMS system with an e-commerce plug-in. Students are exposed to the development and management of inventory, creating sales items, shipping options, accepting payments, and how to return items.
Credits 3
Lab Hours 3
Class Hours 2
Prerequisites
GRA120L and GRA226L

GRA230L : Front End Website Design

This course will explore Web Design theory as it relates to User Experience (UX). Students will design visually appealing websites while prioritizing functionality and accessibility via visual hierarchy and page layout. Students will use Figma and other web-design services to consider how type, color, and overall structure of a web page guides the user in the intuitive navigation of a website.
Credits 3
Lab Hours 2
Class Hours 2

GRA230L : Front End Web Design

This course will explore Web Design theory as it relates to User Experience (UX). Students will design visually appealing websites while prioritizing functionality and accessibility via visual hierarchy and page layout. Students will use Figma and other web-design services to consider how type, color, and overall structure of a web page guides the user in the intuitive navigation of a website.
Credits 3
Lab Hours 0
Class Hours 3

GRA231L : Branding and Identity

This course will cover the theory and practice of creating brand identity design products. Students will explore branding and identity as it's represented within a visual system, which would include iconography, typography, pattern, color, and so on. Students will explore the components of a strong visual identity via the creation of design projects such as logos, print ads, stationery, business cards, etc.
Credits 3
Lab Hours 2
Class Hours 2

GRA231L : Branding and Identity

This course will cover the theory and practice of creating brand identity design products. Students will explore branding and identity as it's represented within a visual system, which would include iconography, typography, pattern, color, and so on. Students will explore the components of a strong visual identity via the creation of design projects such as logos, print ads, stationery, business cards, etc.
Credits 3
Lab Hours 0
Class Hours 3

GRA266L : Independent Study

Students in an independent study option will engage in learning about a topic of special interest and/or need. A written report on the topic of the independent study is required.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisites
Approval of advisor and department chair

GRA271L : Screen Process Printing

This course introduces the student to commercial screen-printing techniques. Areas of emphasis include types of frames, terminology, fabric selection, photo mechanical stencil preparation, fabric stretching techniques, screen printing inks, squeegee selection, and substrates. Projects are selected and designed by each student and must be printed on predetermined substrates. Classroom theory will be supported by lab demonstrations.
Credits 3
Lab Hours 2
Class Hours 2

GRA280L : Graphic Design Capstone

This course is intended to provide the vehicle for students to show overall competency and skills in Graphic Design Technologies, which have been a part of their degree program. Under supervision of a faculty advisor, the student will select an appropriate project, plan, and perform the necessary tasks, and present the results. It is expected the student will create a professional portfolio with the objective of obtaining either a professional position in the field, or admission into a 4-year institution.
Credits 3
Lab Hours 0
Class Hours 2
Prerequisites
GRA224L, may be taken concurrently

History

HIST131L : American History and Civilization I

This survey, from the “Age of Exploration” until approximately 1865, examines the development of American civilization, institutions, and cultures during this period. The course'92s approach to American history is a “holistic” one that explores the social, cultural, philosophical, political, and economic aspects of that history.
Credits 3
Lab Hours 0
Class Hours 3

HIST132L : American History and Civilization II

This survey, from approximately 1865 to the present, examines the development of American civilization, institutions, and culture during this period. The course'92s approach to American history is a “holistic” one that explores the social, cultural, philosophical, political, and economic aspects of that history.
Credits 3
Lab Hours 0
Class Hours 3

HIST138L : Women in U.S. History - 1600 to the Present

This course is a multicultural survey of women'92s roles, experiences and contributions to American society and culture from 1600 to the present. Topics included will be colonial women and domestic work; witchcraft persecutions; women as masters and slaves; women reformers; the suffrage and woman'92s rights movement; women and war; women'92s physical and mental health; women and political power; immigrant women; women as Other - lesbians and gender rebels; women in the Civil Rights and peace movements; women and political power; contemporary feminism.
Credits 3
Lab Hours 0
Class Hours 3

HIST140L : New Hampshire History

This course examines major social, cultural, political, and technological events, trends, and movements in New Hampshire, from the time before the glaciers to today. Topics covered include: geology and geography of New Hampshire, the original inhabitants, European arrival, New Hampshire'92s role in the shaping of America and the world. Special attention will be given to the personalities and legends that give New Hampshire its unusual character and reputation.
Credits 3
Lab Hours 0
Class Hours 3

HIST210L : World History I

This survey course covers the historical development of various representative world cultures and civilizations until approximately 1500. Areas covered include: human evolution and migration out of Africa, prehistoric human cultures, the Agricultural Revolutions in the Old and New Worlds, the major “Cradles of Civilization”: Mesopotamia, Egypt, India, China, Mesoamerica, and the Andes, human technical developments, the development of political and legal systems, Ancient Europe, Medieval Europe, contact between Asia and Europe, and other topics. Students will understand history as not only WHO, WHAT, WHERE, and WHEN but will also understand the “WHY”.
Credits 3
Lab Hours 0
Class Hours 3

HIST220L : World History II

This survey course covers the historical development of various representative world cultures and civilizations from approximately 1500 to the present. Areas covered include: European expansion and conquest; the development of the “modern” political and economic systems; the rise and fall of “empires”; the Industrial Revolution; the Enlightenment and its influence; the development of the modern nation-state; imperialism, colonialism, and nationalism. Students will understand history as not only WHO, WHAT, WHERE, and WHEN but will understand the “WHY”.
Credits 3
Lab Hours 0
Class Hours 3

HIST225L : History of the Twentieth Century

The course examines major social, cultural, political, and technological events, trends, and movements in the world during the twentieth century. Topics covered include: Russian Revolution, Communism, World Wars I and II, industrial and technological advances and trends, the demise of colonialism, the Cold War, the Middle East, Vietnam, social and cultural trends in the 1950'92s and 1960'92s, and the downfall of the Soviet Union. It is hoped that class members will go beyond an understanding of history as simply “who, where and when,” and begin to understand why.
Credits 3
Lab Hours 0
Class Hours 3

HIST235L : US Labor and Reform Movements

The focus of the course is on those trends, movements and leaders that have sought to give voice and power to the traditionally voiceless and powerless segments of American society. Movements that have fought to eliminate or reduce inequality based on class, gender and race and to realize the "American Dream” are studied. The history and development of organized labor and its effect on American life and culture and such related movements and trends as the Civil Rights and Women's Rights movements are discussed. Discussion of the music, art, literature and other elements of "popular culture" associated with these movements are examined.
Credits 3
Lab Hours 0
Class Hours 3

Hotel and Restaurant Operations

HOS113L : Introduction to Worldwide Cuisine

The student will apply concepts and skills learned and expand knowledge of the restaurant setting. A six-hour lab will focus on international cuisine. Costing, purchasing, menu terminology, quality recipe production and kitchen organization are covered. Students will continue to operate a restaurant that is open to the public.
Credits 3
Lab Hours 6
Class Hours 1
Prerequisites
CULA151L or Permission of Instructor

HOS114L : Dining Room Management I

This course presents an in-depth analysis of dining room personnel as well as menu planning, styles of service, and customer service responsibilities. A six-hour working lab will take place where students will set and serve in a student-run restaurant that is open to the public. A discussion of wines and wine service is included.
Credits 3
Lab Hours 6
Class Hours 0

HOS116L : Independent Study II

Individual courses will vary. This course provides the vehicle for students to demonstrate overall competency in specific concentration areas. Under supervision of a faculty advisor, working individually or as part of a team, the student will select and successfully carry out a series of projects that pertain directly to their area of interest. Projects will be designed on a case-by-case basis.
Credits 1
Lab Hours 3
Class Hours 0
Prerequisites
A matriculated student, permission of department chair and a minimum cumulative GPA of 2.0

HOS124L : Sanitation and Safety

This course covers sanitation and safety concepts, regulations, and procedures for food service and other sectors of the hospitality industry. Certificate may be issued.
Credits 1
Lab Hours 0
Class Hours 1

HOS222L : Quantity Food Purchasing

This course covers the duties of stewardship and all related functions including specifications, centralized procurement, and container sizes. Emphasis is given to the examination and establishment of the various grades and types of categories of produce, meats, poultry, and fish. Comparisons are made between canned products as well as scrutinizing their pros and cons. The importance of inventory control methods, product loss management and vendor selection are stressed.
Credits 3
Lab Hours 0
Class Hours 3

Human Services

HSV110L : Professional Seminar

This course covers the basic steps to becoming a Human Services professional. Self-evaluations and aptitude testing will be a part of the curriculum. Students will acquire an understanding of the responsibility of working with others and how confidentiality and ethics play a major role in the field. Other topics will include cultural diversity, domestic violence, community awareness, and communication skills, both verbal and written.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisites
Interview with Instructor

HSV112L : Overview of Developmental Disabilities

This course will cover the broad range of developmental disabilities; including what is a developmental disability, an overview of specific developmental disabilities, what are the best ways to support a person with a specific disability. Included in this course will be the history of the provision of services to people with developmental disabilities, nationally and specifically in New Hampshire.
Credits 3
Lab Hours 0
Class Hours 3

HSV113L : Community Inclusion

This course will cover how as a society we have come from segregation to integration to full inclusion. How does this impact someone through their lifespan, what are some specific strategies and tools one can use when working with individuals with disabilities and their families?
Credits 3
Lab Hours 0
Class Hours 3
Prerequisites
HSV1120L

HSV120L : Introduction to the Human Services Profession

This course provides the full range of human service topics for the student to become familiar with the profession in all its diversity. Topics include: administration, assessment, diversity, gerontology, mental health, and direct care. Students will understand the theory and practice of the services available for disabled and disadvantaged people in the community. Information and concepts are drawn from history, sociology, and psychology.
Credits 3
Lab Hours 0
Class Hours 3

HSV122L : Supportive Communication Skills

This course provides an overview of theory, process, and the practice of primary interpersonal communication skills. Students are assisted in developing skills to supportively communicate with a variety of people in a range of environments.
Credits 3
Lab Hours 0
Class Hours 3

HSV126L : Learning and Behavior

This course discusses the history and principles of behaviorism and presents learning theories and teaching techniques based on positive behavior principles. Presentation and discussion focus on the ethical and client rights issues of understanding and promoting effective behavior. Recent trends and techniques for applying learning principles in a variety of settings will be included.
Credits 3
Lab Hours 0
Class Hours 3

HSV128L : Individual Assessment and Planning

In this course we address the question of how human potential can be recognized and enhanced. To answer this question, we will critically examine the perspectives and tools that are commonly used. Our focus will be to build on strengths and develop ways of supporting continued growth and personal goals of people who choose to participate in human services.
Credits 3
Lab Hours 0
Class Hours 3

HSV130L : Gerontology

This survey course in gerontology includes a history of the changing demographics of aging, social and economic factors, potential impact of stress, housing, and retirement. Legal issues, as well as protection, safety, community services, and care are discussed.
Credits 3
Lab Hours 0
Class Hours 3

HSV131L : Psychosocial Aspects of Aging

This course examines the growth and development of older persons from both psychological and sociological perspectives. The interaction of the individual with the social environment provides a framework for this course with special attention given to societal valuing and devaluing of older persons. The growth and development of older adults, social roles, expectations, opportunities, and new perspectives on aging are discussed.
Credits 3
Lab Hours 0
Class Hours 3

HSV140L : Justice and the Community

This course will provide a comprehensive overview of emerging trends in community justice and support services, with an emphasis on community integration of service delivery, juvenile justice, and violence in society. Changing societal, judicial, and community values will be explored within a historical context; with regard to their impact on the evolution of emerging community-based juvenile justice models and responses to violence through the development of community justice models.
Credits 3
Lab Hours 0
Class Hours 3

HSV145L : Foundations of Conflict Resolution

This course is designed to provide students with the essential foundations of Conflict Resolution. This is a theory-based course that will enhance students'92 awareness of violence in society as well as bullying and conflict related issues that arise in the workplace and personal environment. Students will study, research, and analyze various theoretical models of conflict resolution to realize that there are a variety of concepts that can be used to create a peaceable environment. Students will participate in role-plays to further enhance their understanding of each model and its impact on the field of conflict resolution. The research component will be the foundation in which the student can build a plan/ program for the practicum experience that follows.
Credits 3
Lab Hours 0
Class Hours 3

HSV150L : Introduction to the Practicum

Designed to prepare students for human services practicum experiences, this course provides opportunities to identify and practice skills in the areas of interviewing, communications, human relations, research, ethics, and management of time and work. This course is required for all Human Services students.
Credits 1
Lab Hours 0
Class Hours 1

HSV161L : Human Services Practicum I

A course combining: supervised human services work at a community agency, with instructor-facilitated student peer review. This is an individualized learning experience that enables the student to develop and apply attitudes, skills, and knowledge in a real work setting. Work at the practicum site, along with peer review, self-reflection, and disclosure, combine to create a structure that promotes and supports personal and professional growth.
Credits 5
Lab Hours 9
Class Hours 2
Prerequisites
HSV120Land HSV150L or Permission of Instructor

HSV171L : Gerontology Practicum I

This course combines supervised human services work at a community agency with instructor facilitated student peer review. This is an individualized learning experience that enables the student to develop and apply attitudes, skills, and knowledge in a real work setting. Work at the practicum site, along with peer review, self-reflection, and disclosure, combine to create a structure that promotes and supports personal and professional growth.
Credits 5
Lab Hours 9
Class Hours 2
Prerequisites
HSV130Land HSV150L or Permission of Instructor

HSV214L : Meaningful Supports

We all find meaning in how we spend our days- where we choose to go, work, recreate. People with disabilities have gone from a time of segregation to inclusion in their community. This course will look at how to bring meaning to one'92s day, so that community members with disabilities are contributing members of their community. This course will also examine barriers to full participation and strategies to overcome perceived barriers.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisite Courses
HSV112L: Overview of Developmental Disabilities

HSV215L : Families and Support Networks

In this course, the student will learn about the importance of relationships, social networks, family support and individualized support for people with disabilities.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisite Courses
HSV112L: Overview of Developmental Disabilities

HSV221L : Mental Health and Developmental Disabilities

This course introduces students to human services within the fields of mental health and developmental disabilities. Recent developments in the delivery of services that enhance the self-determination of individuals and families will be examined. Students will also be introduced to concepts and methods of family support, community membership, school inclusion, supported employment, stigma, peer support, and recovery. With guidance, students will be responsible for developing and presenting an individual learning project.
Credits 3
Lab Hours 0
Class Hours 3

HSV228L : Political/Social Issues of Human Services

This course presents students an opportunity to study and present on topics related to social and political trends and forces that profoundly influence service recipients and service systems. An analysis of historical issues with regard to their impact on current service system trends is conducted. Issues that are expected to have a significant impact on service delivery in the future are discussed.
Credits 3
Lab Hours 0
Class Hours 3

HSV230L : The Aging Process

This course provides an overview of the processes underlying the phenomena of aging across the lifespan. An overview of genetics and the cellular bases of living and dying as factors of growing older are provided. The effects of aging on organs and bodily system functioning, as well as the impact of lifestyle on health and longevity are reviewed.
Credits 3
Lab Hours 0
Class Hours 3

HSV232L : Political/Social Issues in Gerontology

This is an opportunity for students to study and present on topics related to social and political trends and forces profoundly affecting aging individuals and their families. Issues are evaluated in a historical context with regard to their impact on current service system trends. Issues that are expected to have a significant impact on service delivery in the future are discussed.
Credits 3
Lab Hours 0
Class Hours 3

HSV262L : Human Services Practicum II

Building on skills and knowledge gained in Human Services Practicum I (HSV161L), students develop more advanced competencies as the basis for the learning experience and will be evaluated using criteria appropriate for second year students. Work at the practicum site, along with peer review, self-reflection, and disclosure, combine to create a structure that promotes and supports a deeper level of personal and professional growth.
Credits 5
Lab Hours 9
Class Hours 2
Prerequisites
HSV161L or Permission of Instructor

HSV271L : Gerontology Practicum II

Building upon attitudes, skills, and knowledge acquired in Gerontology Practicum I (HSV171L), the student will develop more advanced competencies as a basis for the learning contract and will be evaluated by criteria appropriate for a second-year student. Work at the practicum site, along with peer review, self-reflection, and disclosure, combine to create a structure that promotes and supports a deeper level of personal and professional growth.
Credits 5
Lab Hours 9
Class Hours 2
Prerequisites
HSV171Lor Permission of Instructor

Humanities

HUMA130L : Introduction to Archeology

This course is an introduction to anthropological archeology. It first examines the history and development of the discipline along with a survey of the methods, theories, and practice in modern archeology. The course then focuses on the major developments in world prehistory. These include human origins and the evolution of culture, prehistoric technology, peopling of the globe, the domestication of plants and animals, prehistoric trade and exchange, the development of tribes and chiefdoms, and the formation of ancient states in the Old and New Worlds.
Credits 3
Lab Hours 0
Class Hours 3

HUMA131L : Cultural Anthropology
This survey course involves the study of human beings and their cultures, customs, origins and development. Specific topics examined and discussed include human origins and evolution, human cultures, race and ethnicity, religions, taboos, political systems, economic systems, kinship, sexual norms and mores, gender roles, marriage, educational systems, art, and the effects of globalization on local cultures.
Credits 3
Lab Hours 0
Class Hours 3

HUMA132L : Native Peoples of N. America
This anthropological survey course covers the prehistory, history, cultural characteristics, and diversity of native peoples of North America. Culture areas investigated include Arctic, Subarctic, Northwest Coast, Plateau, California, Great Basin, Southwest, the Great Plains, Eastern Woodlands (Northeast and Southeast), Mesoamerica, and the Caribbean Islands. The course will also cover the impacts of European contact, adaptions, the revival of native culture, and contemporary issues of native peoples today.
Credits 3
Lab Hours 0
Class Hours 3

HUMA156L : Music Appreciation: Medieval to 18th Century
This course will complement your appreciation of music from its basic elements through a historical reflection of music in society. The ability to discern musical examples will heighten the enjoyment and understanding of music as it is explored from the Medieval Ages through to the end of the 18th Century.
Credits 3
Lab Hours 0
Class Hours 3

HUMA157L : Music Appreciation: 19th and 20th Centuries
This course will build an appreciation of music from its basic elements through a historical reflection of music in society. The ability to discern musical examples will heighten the enjoyment and understanding of music as it is explored in the 19th and 20th centuries.
Credits 3
Lab Hours 0
Class Hours 3

HUMA160L : Introduction to Theatre
This overview of theater through the production process combines a history of theater with elements of stage craft, acting technique, play analysis and script writing.
Credits 3
Lab Hours 0
Class Hours 3

HUMA161L : Acting and Scene Study I
A workshop-style, basic acting and scene study, this course is based on the Sanford Meisner approach, and an overview of the great theater practitioners from Thespis to Stanislavski. Students participate in vocal and movement activities, as well as theater exercises, and they analyze characters through scene studies of playwrights'92 texts.
Credits 3
Lab Hours 0
Class Hours 3

HUMA250L : Humanities in Western Civilization I
This interdisciplinary course examines evolutions of western culture from its classical origins up through 1550 A.D. This is accomplished through the examination of multiple perspectives including literature, art, music, philosophy, politics, and theater. Classes consist of lectures, group seminars on readings and student projects.
Credits 3
Lab Hours 0
Class Hours 3

HUMA252L : Humanities in Western Civilization II
This interdisciplinary course examines the ideological, economic, political, religious, psychological, artistic, social, philosophical, and military components involved in the cause-and-effect relationships which have molded the western cultural heritage from 1650 to the present. Classes consist of informal lectures, readings, quizzes, seminars on readings, and student presentations.
Credits 3
Lab Hours 0
Class Hours 3

HUMA299AL : Special Topics in Humanities: Cultural Studies

Cultural Studies is not the “study of cultures” in the way one might imagine; rather, it is an effort to understand the context of any given moment in space and time. It investigates how people'92s everyday lives are structured and organized in contradictory ways by social, economic, political, and cultural relations of power, as well as the historical possibilities of changing those lived realities—the ways one imagine(d) life could be otherwise. This is a course designed to confront many of the assumptions students may have about the world as well as the ways that different disciplines in the college teach one to think. It will demand that students think more complexly, work more collaboratively, and produce work that matters. Students will develop a core understanding of these issues by unpacking and analyzing selected readings and participating in discussions as well as completing short writings and research.
Credits 3
Lab Hours 0
Class Hours 3

HUMA299BL : Special Topics in Humanities: On Violence

Violence, Humans in Dark Times is a course that has arisen from a series of conversations Brad Evans and Natasha Lennard have had with a wide range of cutting-edge thinkers on the intersections of violence with society. First published in the New York Times and the Los Angeles Review of Books, these conversations will frame the foundation of the course as students use it to deeply explore how violence is understood and used in modern society and ways in which to combat its presence. Students will develop a core understanding of these issues by unpacking and analyzing selected conversations through readings and discussions, but will then work to bring a practical application to these issues as they consider how to shift these theoretical conversations to real-world action
Credits 3
Lab Hours 0
Class Hours 3

HUMA299L : Special Topics in Humanities:

The Humanities explores what it means to be human within a contemporary or historical context. The Humanities provided us with the broad frameworks within which enduring questions of existence, relationships, values, and aesthetics can be examined from multiple perspectives. The Special Topics in Humanities course changes thematically each semester and may explore ideas around evil, love, race, gender, sport, spirituality, and those strands which connect us and make us human. May be repeated for credit when course content changes; may be taken with other topics courses during the same semester.
Credits 3
Lab Hours 0
Class Hours 3

HVAC (Heating, Ventilating and Air Conditioning)

ESTC150L : Introduction to Photovoltaics

This course introduces the principles of photovoltaics; including the basics of safety, the electrical basics of solar PV systems, how modules are designed and combined with other system components. Participants will learn how to decide upon the size, electrical and mechanical design of a PV system, as well as how to analyze and troubleshoot problems. Students should have a basic understanding of electricity fundamentals before enrolling in this class.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisites
ETEC124L

ESTC180L : Introduction to Heating, Ventilation and Air Conditioning

This course covers residential and commercial heating, ventilation, air-conditioning, and refrigeration systems and operation. Various types of heating and cooling systems are covered in detail. The theories of heat transfer and combustion are covered for a complete understanding of how systems function. Time will also be spent on installation requirements for various systems.
Credits 3
Lab Hours 0
Class Hours 3

Industrial Automation and Robotics

IARB116L : Fabrication Technologies
Students will be introduced to the fundamentals of basic fabricating and machining skills used to create objects from an idea into to a finished product. Students will learn how to use computer aided design (CAD), blueprint reading, computer aided manufacturing (CAM), the use of precision measuring instruments, 3D print prototypes, material selection, machine shop tools, and in-depth coverage of CNC equipment.
Credits 4
Lab Hours 2
Class Hours 3

IARB126L : Introduction to Electronics
This course is designed to introduce the basic concept of electricity, electronics circuits, and electronic components. Topics, which span from the sources of energy and Ohm's Law to diodes, circuits, switches, and sensors are covered in a logical sequence with information building upon itself.
Credits 4
Lab Hours 2
Class Hours 3

IARB236L : Introduction to Microcontrollers
In this course students will be introduced to various microcontrollers, learn how to program them, build functional input/output circuits, and learn how microcontrollers are used in robotics. Students will gain the knowledge of building and implementing "Internet of Things" (loT) devices to solve real world problems.
Credits 4
Lab Hours 2
Class Hours 3
Prerequisite Courses
CIS140L: Introduction to Programming
CIS248L: Introduction to Networks
IARB116L: Fabrication Technologies

IARB276L : Industrial Robotics and Automation
Students will be introduced to the principles, systems, and applications for industrial robotics or automated machines. These topics include movement systems, sensing and end-of-arm tooling, control systems and maintenance, coverage of industry 4.0, PLC, the Industrial Internet of Things (IIoT), and Light Detection and Ranging (LiDAR). Students will use these skills to design, implement, and demonstrate "Lights Out" manufacturing.
Credits 4
Lab Hours 2
Class Hours 3
Prerequisite Courses
CIS215L: Intermediate Programming
MATH216L: Statistics
IARB236L: Introduction to Microcontrollers

Interdisciplinary Studies

INDL221L : Interdisciplinary Studies Internship
This course is an internship for the Interdisciplinary Studies Program. A minimum of 60 hours must be completed in a preapproved internship field in which the student wants to seek employment or continued education. Approval will be at the discretion of the Department Chair and Vice President of Academic and Student Affairs.
Credits 3
Lab Hours 9
Class Hours 0

INDL290L : Interdisciplinary Studies Capstone
This course allows senior students to demonstrate and reflect on what they have learned throughout their degree program. The project and portfolio presented in this course will serve as a representation of their skills gained through their chosen program(s) and work experience.
Credits 3
Lab Hours 0
Class Hours 3

INDL291L : Inter. Studies Internship
This course is an internship for the Interdisciplinary Studies Program. A minimum of 60 hours must be completed in a preapproved internship field in which the student wants to seek employment or continued education. Approval will be at the discretion of the Department Chair and Vice President of Academic and Student Affairs.
Credits 3
Lab Hours 9
Class Hours 0

Marine Technology

Please Note: The Marine Technology Associate Degree and Diagnostic Repair Certificate are currently in a teach-out phase and LRCC no longer is accepting students into these programs.

The Marine Technology program concentrates on recreational marine equipment, including outboards, inboards, inboard/outboards, engines, and diagnostic equipment. Students become knowledgeable in the maintenance, repair of internal combustion engines, and drive systems through classroom and lab experience.

LRCC offers two certificates and two-degree pathways. The Marine Maintenance certificate is for those who are looking for basic maintenance training in order to enter the workforce as soon as possible. The Marine Diagnostic and Repair certificate is for those who seek the career of a marine technician. It includes all of the marine maintenance courses as well as the diagnostic and repair courses. Should you seek a degree, LRCC offers a Marine Business degree for those seeking a technical education accompanied by a business perspective. This pathway is best suited for an individual looking for a management position or possible ownership of a marina. The Marine Technical degree is for those who want the most concentrated marine engine repair training available. These students will earn both certificates, a degree and become factory certified with Mercury Marine through our Advanced Marine Systems course.

There are opportunities for marine technicians in coastal and lakeside communities. Graduates will find employment as inboard drive, or outboard technicians, service managers, parts management or even business owners. There are many other opportunities in the recreational off-road vehicle market, such as motorcycle, watercraft and snowmobile technician. Those recreational products are closely related in design and concept; skill sets would be easily transferable.

MAR121L : Marine Maintenance and Fundamentals
This course provides basic theoretical and foundational principles of two- and four-cycle engines along with development of common maintenance procedures specific to trailers and marine power packages. Emphasis on basic service operations including safety, use of hand and power tools, marine hardware, service literature, and operating principles of marine power packages. Students will also obtain credit within the Mercury University system.
Credits 5
Lab Hours 3
Class Hours 4

MAR126L : Outboard Engine Maintenance
Entry level fundamentals of recreational marine industry operations to include; but not limited to, model identification, service support literature, and rigging and maintenance procedures for warranty support.
Credits 5
Lab Hours 6
Class Hours 3
Prerequisites
MAR 121L with a C or better

MAR127L : Marine Electrical Systems
This course focuses on theory, principles and measurements of AC and DC electricity and electronics are covered. Setup, Maintenance, and diagnostic procedures for common inboard, stern drive, outboard starting and charging systems. Schematic and conventional wiring diagram interpretation allows the student to become familiar with common 12-volt marine electrical systems, such as helm harnesses, gauge packages and accessory lighting circuits.
Credits 5
Lab Hours 6
Class Hours 3

MAR170L : Independent Study
Students in an independent study option will engage in learning about a topic of special interest and/or need.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisites
Approval of instructor, advisor, and department chair

MAR227L : Marine Drive Systems Diagnostics and Repair
This course examines the maintenance, diagnostics and repair procedures for common marine stern drive engine packages. Drive-by-wire systems will be explored in depth along with maintenance and service procedures related to inboard engine transmissions.
Credits 5
Lab Hours 6
Class Hours 3
Prerequisites
MAR121L with C or better

MAR228L : Inboard Engine Diagnostics and Repair
This course will cover theory and repair of stern drive engine systems such as internal engine, fueling, and electrical systems. Diagnostics skills will be developed as each system and its repair process is thoroughly examined.
Credits 5
Lab Hours 6
Class Hours 3
Prerequisites
MAR127L with C or better.

MAR232L : Outboard Engine Diagnostics and Repair
This course reviews two- and four-cycle engine theory emphasizing the application of fuel injection systems. Topics of theory include; cooling systems, fuel systems, powerheads and power transfer unites. Students learn to use the diagnostic software needed to evaluate components in these advanced systems.
Credits 5
Lab Hours 6
Class Hours 3
Prerequisites
MAR126L with a C or better

MAR270L : Advanced Marine Systems I
This course will provide students basic theory and operation of marine engines, electrical/electronic systems, and other related subjects necessary for modern marine technicians. Success of this course reflects the completion of the online training prerequisite for Mercury Marine Certificate,
Credits 3
Lab Hours 0
Class Hours 3
Prerequisites
Marine Diagnostic and Repair certificate with minimum 2.0 GPA

MAR272L : Advanced Marine Systems II
This course will provide students diagnostic and advanced repair skills on marine engines, electrical/electronic systems, and other related subjects necessary for modern marine technicians. Successful completion of this course reflects the student credential of Mercury Marine certified technician.
Credits 6
Lab Hours 6
Class Hours 4
Prerequisite Courses
MAR270L: Advanced Marine Systems I

Mathematics

MATH061L : Math Prep
This course provides an extensive review of basic arithmetic and algebra concepts. Topics covered include operations with whole numbers, fractions, and decimals; percent; properties of real numbers; solving linear equations and inequalities; interpreting and solving application problems; graphing linear equations and inequalities; exponents, scientific notation; polynomials, factoring; and measurement in both the U.S. customary and the metric systems. (Credits do not apply to degree requirements).
Credits 3
Lab Hours 0
Class Hours 3

MATH129L : Quantitative Reasoning

This course is designed to expose the student to a wide range of general mathematics. Problem solving and critical thinking skills, along with the use of technology, will be emphasized and reinforced throughout the course as the student becomes actively involved solving applied problems. Topics to be covered include: Number Theory and Systems, Functions and Modeling, Finance, Geometry and Measurement, Probability and Statistics, and selected subtopics related to the student'92s major field of study.
Credits 4
Lab Hours 0
Class Hours 4
Prerequisites
Competence as demonstrated on math placement exam.

MATH137L : Technical Algebra & Geometry

This course is intended for technical students and introduces concepts from algebra, geometry, and trigonometry that will facilitate the solution of applied problems which could be encountered in technical fields. Topics include measurement, absolute and relative error, linear equations, roots, plane and solid geometric figures and their areas/volumes, finding missing dimensions of plane and solid figures, inscribed and circumscribed angles, radian measure, right triangle trigonometry, and an introduction to personal finance. A grade of C or better must be achieved in this class in order to use it as a prerequisite for a subsequent class.
Credits 4
Lab Hours 0
Class Hours 4
Prerequisites
Competence as demonstrated on math placement exam

MATH142L : Essentials of Algebra

This course includes a study of linear equations and their graphs, linear inequalities, an introduction to functions and their graphs, absolute value equations and inequalities, systems of equations in 2 and 3 variables, operations with polynomials, rational expressions, rational exponents, and an introduction to solving quadratic equations. A grade of C or better must be achieved in this class to use it as a prerequisite for a subsequent class.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisites
Competence as demonstrated on math placement exam.

MATH211L : College Algebra

This is a comprehensive course that includes the graphs and solutions of linear, radical, and quadratic equations; graphs and solutions of linear, compound, absolute value, and nonlinear inequalities; exponential and logarithmic functions and their graphs; systems of equations in 2 and 3 variables, including solutions using matrices; rational exponents; and an introduction to trigonometry. A grade of C or better must be achieved in this class to use it as a prerequisite for a subsequent class.
Credits 4
Lab Hours 0
Class Hours 4
Prerequisites
MATH142L with a grade of C or better or competence demonstrated on math placement exam.

MATH216L : Statistics

This is a first course in statistics and probability. Analysis of single and bivariate data, algebraic and graphical analysis, sample statistics, probability, probability distributions, sample variability, sample distributions, the Central Limit Theorem, estimation and hypothesis testing, correlation and regression are covered. Emphasis is on applications throughout the course.
Credits 4
Lab Hours 0
Class Hours 4
Prerequisites
MATH 129L or MATH 137L or MATH 142L with a grade of C- or better or competence demonstrated on math placement exam.

MATH225L : Finite Math

Topics in this course include linear, quadratic, exponential, and logarithmic functions; financial formulas such as rate of change, growth, compounding, etc.; the use of matrices and linear programming techniques in solving multi-variable problems; basic set and probability theory with Venn diagrams, and permutation/ combination formula analysis.
Credits 4
Lab Hours 0
Class Hours 4
Prerequisites
MATH142L with a grade of C or better or competence demonstrated on math placement exam.

MATH235L : Pre-Calculus

Topics in this course include polynomial, rational, trigonometric, logarithmic, and exponential functions and their graphs; trigonometry and the unit circle; trigonometric identities; composite and inverse functions; logarithmic and exponential equations; solution of higher degree equations; quadratic, rational, and absolute value inequalities.
Credits 4
Lab Hours 0
Class Hours 4
Prerequisites
MATH211L with a grade of C or better or competence demonstrated on math placement exam.

MATH270L : Calculus I

This course is designed for the student who has a strong math background. Included is a brief review of topics from Pre-Calculus. Calculus topics include functions, limits, continuity, slope/rate of change and the derivative, rules for and applications of the derivative, derivatives of trigonometric and logarithmic functions, and an introduction to integrals.
Credits 4
Lab Hours 0
Class Hours 4
Prerequisites
MATH235L with a grade of C or better or competence demonstrated on math placement exam.

MATH271L : Calculas II

This course is designed for the student who has a working knowledge of differentiation. Topics include integration techniques and applications, introduction to multi-variable functions, integrals of transcendental functions, calculus in probability, and an introduction to series and sequences.
Credits 4
Lab Hours 0
Class Hours 4
Prerequisites
MATH270L with a grade of C or better.

MATH275L : Math Technologies Explorations

This course will be a directed study using one type of technology (such as a graphing calculator or computer program). The student will, under the direction of the professor, undertake an exploration of the mathematical applications using the chosen technology.
Credits 1
Lab Hours 0
Class Hours 1
Prerequisites
MATH142L or Permission of Instructor

Nursing

NURS100L : Licensed Nursing Assistant

The NH Board of Nursing approved Licensed Nursing Assistant (LNA) program consists of 46 hours of classroom theory/lab and 60 hours of clinical for a total of 106 hours of coursework. The theory portion is delivered at the college. The clinical is arranged at a local health care facility. The College offers semester long and accelerated LNA courses. After successfully completing the LNA program, all students must register for the state competency written and clinical exam and complete criminal background checks/fingerprinting as part of the process to obtain their LNA license with the State of New Hampshire. This course is not part of the Associate Degree in the Nursing Program.
Credits 5
Lab Hours 9
Class Hours 2

NURS132L : Nursing I

This course provides an introduction to the nursing profession and roles of the nurse. The 10 key concepts that serve as the foundation for the nursing program are introduced. These include: list 10 concepts. The theoretical foundation for basic health for basic health assessment is integrated with nursing skills. The student is given an opportunity to learn and demonstrate health assessment skills using a variety of resources in the laboratory and clinical settings. The foundations of pharmacology and medication administration are presented using various resources to support material presented. An introduction to the nursing process provides a decision-making framework to assist students in developing effective clinical judgment skills.

Credits 9
Lab Hours 4
Class Hours 5
Prerequisites
Admission to the ADN nursing program.
Corequisites
BIOL145L and PSYC126L with a grade of C

NURS142L : Nursing II

- Meds-Surg: The Med Surg portion of Nursing II focuses on the medical surgical nursing care of adult patients with health alterations. Emphasis is placed on health assessment, medication administration, and the care of patients with alterations in selected body systems. Clinical experiences provide the student an opportunity to apply the concepts introduced in Nursing I. The course expands the student's ability to utilize effective clinical judgement skills and prepares the student to care for more complex patients in Nursing III.
- Mental Health: This content provides a concentrated experience in the specialty area of mental health nursing. Emphasis is placed on using the concepts introduced in NSG I and II, effective therapeutic communication techniques, completing a psychiatric nursing assessment, discussion of psychotropic medications as a member of an interdisciplinary team in the care of individuals within the mental healthcare clinical setting.

Credits 10
Lab Hours 5
Class Hours 3
Prerequisites
NURS132L with a minimum grade of B-, BIOL145L, PSYC126L with a minimum grade of C
Corequisites
BIOL146L, PSYC125L

NURS222L : Nursing III

- Medical Surgical Complex: Integration of the program concepts continues as the content focuses on the care of adult patients with complex medical and surgical health problems. Emphasis is placed on helping patients and their families cope with alterations in body functions. Pharmacology, health promotion, and patient education are incorporated throughout the course. Clinical learning experiences provide an opportunity to apply theoretical concepts and implement safe care to patients in a variety of medical surgical settings.
- Pediatrics This content provides an integrative, family-centered approach to the care of children. In this course the student will learn about growth and development, common pediatric disorders, and the promotion of health behaviors in families. Clinical experiences provide the student an opportunity to apply theoretical concepts and implement safe care to patients and families in the school setting.

Credits 9
Lab Hours 4
Class Hours 5
Prerequisites
NURS132L, NURS142L with a minimum grade of B-, BIOL145L, BIOL146L, PSYC125L, PSYC126L with a minimum grade of C
Corequisites
BIOL241L

NURS232L : Nursing IV

- Leadership & Management: Emphasis is placed on contemporary issues and management concepts, as well as developing the skills of delegation, conflict management, and leadership. Legal and ethical issues are discussed with a focus on personal accountability and responsibility. Students will demonstrate leadership through presentation of an evidence-based project.
- Medical Surgical Multisystem: This content focuses on advanced concepts of nursing care as they relate to patients across the lifespan with complex, multisystem alterations in health. Emphasis is placed on implementing time management and organizational skills while advocating and caring for patients with multiple needs. Complex clinical skills, as well as priority setting, and autonomous clinical judgement are integrated throughout the course. Clinical experiences provide the student an opportunity to apply theoretical concepts, implement safe care, and evaluate outcomes of patients in a variety of settings.
- Maternal, Newborn & Reproductive Health: This content provides a family-centered approach to the care of mothers and newborns. In this course the student will learn about pregnancy, reproductive health, and the promotion of health behaviors during pregnancy delivery and post partum. Clinical experiences provide the student an opportunity to apply theoretical concepts and implement safe care to patients and their families.

Credits 10
Lab Hours 1.5
Class Hours 6
Prerequisites
NURS132L, NURS142L, NURS222L with a minimum grade of B-, BIOL145L, BIOL 146L, BIOL241L, PSYC125L, PSYC126L with a minimum grade of C

Paramedic

PAMD110L : Paramedic I

A comprehensive course that includes an introduction to paramedicine, foundations of EMS, wellness of the paramedic, pathophysiology and the theory, knowledge, and skills to manage medical, cardiac, and traumatic emergencies, pharmacology, life span development, and public health issues relating to EMS. Critical thinking and problem solving will be developed using a case-based approach. The student will also demonstrate intravenous skills and medication administration in a laboratory environment.
Credits 12
Lab Hours 4
Class Hours 8

PAMD120L : Paramedic II

A comprehensive course that builds on Paramedic I and includes the theory, knowledge, and skills necessary to assess and manage medical, cardiac, and traumatic conditions in obstetric, pediatric, adult, geriatric, special population patients and patients at risk. Case-based approaches will be employed to develop critical thinking, scene management, and problem solving. Students will be introduced to the clinical environment via an orientation that includes mandatory in-service trainings, and procedure and Advanced Emergency Medical Technician skill totaling 90 hours. Skills will be demonstrated in a laboratory environment using case management scenarios and clinical experiences will provide a student an opportunity to apply concepts and skills.
Credits 11
Lab Hours 4
Class Hours 5

PAMD210L : Paramedic III

A comprehensive course of clinical rotations that focuses on patient assessments, medical theory, developing and implementing treatment plans and skills while working with preceptors in a variety of clinical settings, and affective behaviors expected of an entry level paramedic. A minimum of 225 hours is required
Credits 5
Lab Hours 0
Class Hours 0

PAMD220L : Paramedic IV

A field internship course that provides students an opportunity to apply their didactic skills in a fast-paced, progressive EMS environment under the direct supervision of a dedicated preceptor. It will be broken into two phases including a formative (team member) and capstone (team lead) where students will be responsible to ride for at least 315 hours of field time and perform at least 75 total patient assessments and developing and implementing treatment plans. Students will also participate in bi-weekly class designed to bring students and educators together to discuss and review calls using a wholistic approach in discussing medical, social, socioeconomic, political, and other perspectives in preparation for the National Registry certification exam.
Credits 8
Lab Hours 1
Class Hours 0

Philosophy

PHIL129L : Introduction to Philosophy

This course is an introduction to the major areas of philosophical thought including metaphysics, the investigation and analysis of what is real; epistemology; ethics, the investigation into how we can live a "good life"; and esthetics.
Credits 3
Lab Hours 0
Class Hours 3

PHIL225L : Comparative World Religions

The course examines the major "question" or "issues" addressed by religion in general. It then examines major, representative systems of religious belief and practice, as well as their historical and sociological development. These religious systems are analyzed using a "world view outline" which addresses different aspects of religious belief and practice, such as the Absolute, the Human Problem, the Human Solution, Rituals, the Meaning of History, Life After Death, Community and Ethics, and Attitudes Toward Other Religions.
Credits 3
Lab Hours 0
Class Hours 3

PHIL227L : Ethical Issues

This course examines standards of professional conduct, values identification, moral development, and the process of making moral decisions. Major contemporary ethical issues are examined. The emphasis is on acquiring the skills necessary to be able to guide oneself and others in the process of ethical decision-making.
Credits 3
Lab Hours 0
Class Hours 3

Political Science

POLS222L : Current Social and Political Issues

Students learn to understand and analyze important and current events, as well as social, cultural and political issues. Due to the rapid rate of change in our society, specific issues vary depending on what is currently "newsworthy." General topics, however, include foreign affairs and policy, civil rights and liberties, crime and punishment, economic and welfare issues, political and social reform, gender issues, racial and ethnic disharmony, and other current "hot" issues in American life. Class members not only learn how to understand "both sides of an issue" they also learn how to better articulate their own positions.
Credits 3
Lab Hours 0
Class Hours 3

POLS231L : American Government

This introductory course in government examines the relationship between government, politics, and power. Students discuss how people in a representative democracy can effect change in government to address current and future needs.
Credits 3
Lab Hours 0
Class Hours 3

POLS235L : Constitutional Law

Constitutional law is an inquiry into constitutional interpretation by the Supreme Court based on examination of leading cases. Particular emphasis is placed on questions of federalism, executive power, civil liberties, and economic regulation. This course is designed to be preparation for students interested in going into law, law enforcement, public service, business, and political science. Students will conduct research, generate case briefs, participate in classroom debates, perform oral arguments, and present on contemporary legal issues.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisites
POLS231L with a B or better, equivalent high school-level Citizenship or its equivalent.

Psychology

PSYC125L : Introduction to Psychology

Various areas of psychology, including scientific investigation, motivation, personality, psychological testing, behavioral deviation, and perception, learning and human development are studied.
Credits 3
Lab Hours 0
Class Hours 3

PSYC126L : Human Growth and Development

This course surveys physiological, mental and emotional development over the human life span. Using the central concepts of epigenetic stages and interaction with the environment, the course identifies the main trends of human development and explores the needs and typical responses of persons at each stage.
Credits 3
Lab Hours 0
Class Hours 3

PSYC200L : Educational Psychology

Psychological principles are applied to the learning environment. Theories of learning, memory, cognition, and behavior management are discussed in relation to formal education.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisite Courses
PSYC125L: Introduction to Psychology

PSYC220L : Psychopathology

This course is an introduction to the categories, causes and methods of treatment of the major forms of psychopathology: neurosis, psychosis, personality disorders, addictions, sexual deviations, psychophysiological problems
Credits 3
Lab Hours 0
Class Hours 3

PSYC230L : Theories of Personality

This course explores the development and organization of personality, with evaluation of the major theoretical viewpoints on the structure, dynamics, and development of the personality. Psychoanalysis, behaviorist, humanistic/existential, and social cognitive/cognitive emotive perspectives will be discussing, along with trait and biological theories.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisite Courses
PSYC125L: Introduction to Psychology

PSYC235L : Social Psychology

This course explores the theory and research on how interactions with other people influence our own thoughts and behaviors. Specific topics include attitudes and behavior, social perception and cognition, conformity, persuasion, group influence, aggression, attraction, and helping behavior.
Credits 3
Lab Hours 0
Class Hours 3

PSYC290L : Cognitive Psychology

This course provides an in-depth review of the cognitive/thinking process, from fundamental sensory processes, through perceptual organization, memory, and the deeper analysis of data used to solve problems and to inform and to form decisions and conclusions.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisite Courses
PSYC125L: Introduction to Psychology

Science

BIOL127L : Nutrition for Health and Fitness with Laboratory

This course is a study of the nutrients and how the body handles the nutrients throughout the life cycle. Topics include metabolism of macro- and micronutrients; physiological benefits of an optimal diet with exercise; behavioral issues related to eating; energy balance and weight control; and disease prevention strategies related to diet. Life style behaviors, which optimize nutritional health and wellness, are also emphasized. The labs are designed to reinforce selected topics covered in the lecture portion of the course. (Credit can only be given for BIOL1270L or BIOL1290.)
Credits 4
Lab Hours 2
Class Hours 3

BIOL144L : Human Biology with Lab

This course is a study of the human anatomical structure and physiological systems. It is designed to provide the student with knowledge and perspectives necessary to work cooperatively with professionals in medicine and other human service disciplines. Background topics include chemistry for human biology, cell structure and function, and human organization. Major topics include the digestive, circulatory, lymphatic, respiratory, urinary, skeletal, muscular, nervous, reproductive systems, the senses, and genetics. Lab activities are designed to enhance and reinforce selected lecture topics.
Credits 4
Lab Hours 2
Class Hours 3

BIOL145L : Anatomy & Physiology I

This course offers an introduction to the structure and function of the human body. The course includes a review of the chemical and biological basis of living organisms and the anatomy and physiology of the integumentary, musculoskeletal, and nervous systems. Integrated lab experience is provided using anatomical models and dissection of selected specimens, as well as observation of histologic preparations.
Credits 4
Lab Hours 3
Class Hours 3

BIOL146L : Anatomy & Physiology II

This course offers a sequential study of the structure and function of the human body. The course includes the anatomy and physiology of the blood and lymphatic systems, respiratory system, circulatory system, excretory system, fluid and electrolyte balance and reproductive system. Laboratory work parallels lecture topics, and consists of selected exercises in the study of anatomical models, dissection and physiological experimentation.
Credits 4
Lab Hours 3
Class Hours 3
Prerequisites
BIOL145L with a C or better.

BIOL148L : General Biology I

This college-level course covers the principles of cell biology, including cellular physiology, cellular metabolism, molecular biology, biochemistry, and genetics. Laboratory exercises are designed to reinforce theoretical concepts presented in the lecture portion of the course.
Credits 4
Lab Hours 3
Class Hours 3

BIOL149L : General Biology II

This course covers the biology of organisms, including the four areas of kingdoms, behavior, evolution, and ecology. Laboratory exercises are designed to reinforce theoretical concepts presented in the lecture portion of the course.
Credits 4
Lab Hours 3
Class Hours 3
Prerequisites
BIOL148L with a C or better

BIOL152L : Ecology

Students will study the general ecological principles regarding the relationships between organisms and their physical and biological environments in both lecture and the laboratory. These principles will be used to interpret patterns in the distribution, abundance, and characteristics of organisms over space and time. Students will study the differences among the various segments of ecology including individuals, populations, communities and biomes. The focus of this course is on the scientific and ecological principles basic to understanding environmental issues. Coursework will include lecture, laboratory exercises, field trips and in-class discussions

Credits 4
Lab Hours 3
Class Hours 2

BIOL153L : Introduction to Plant Biology

This course is an introduction to the structure, function, and diversity of plants. Covered topics include plant structure and function, growth and development, reproduction and genetics, and ecology, identification, classification, and naming of plants. Laboratory activities are designed to enhance selected topics.

Credits 4
Lab Hours 2
Class Hours 3

BIOL241L : Microbiology

This course offers modern principles and concepts of microbiology. The morphology, physiology, genetics and classification of bacteria, viruses and other organisms are studied. Their relationships to sanitation and infectious diseases are emphasized. The course, nature, incidence, and control of communicable diseases, especially those of man, are included. This course includes a laboratory component.

Credits 4
Lab Hours 3
Class Hours 3
Prerequisites
BIOL145L with a C or better.

BIOL246L : Introduction to Genetics

This course offers the study of human genetics and its application in various disciplines. It is designed to help students gain knowledge of this subject area and to be able to apply this knowledge in cooperative work with medical, research, criminal justice, and many other science-related disciplines. Major topics include introduction and history of genetics, cell reproduction (meiosis and mitosis), genetic pedigrees and inheritance patterns, tools used in genetic testing, mutations, and cancer. Lab activities are designed and used to reinforce selected topics

Credits 4
Lab Hours 2
Class Hours 3

CHEM121L : Chemistry I

This course provides an introduction to chemistry on a qualitative level. The major topics covered include measurement, energy, chemical terminology, classification of matter, atomic models, the Periodic Table, sources and types of chemical bonds, chemical reactions, acids and bases, phases of matter and the properties of common gases. This course is not recommended for students in Liberal Arts or Fine Arts, or for pre-nursing students.

Credits 3
Lab Hours 2
Class Hours 2
Prerequisites
Competence as demonstrated on math placement exam). Credit will only be given for one of the following CHEM121L or CHEM136L.

CHEM136L : Principles of Chemistry

This algebra-based course with integrated laboratory component provides a college-level introduction to the core concepts of chemistry for students new to, or reviewing, the subject. Beginning with the basic concepts of measurement, energy, classification of substances, and chemical terminology, it examines how the history of atomic models leads to the development of the wave mechanics model of the atom and the modern Periodic Table. These are then used in explaining chemical bonding and the nature of ionic, metallic, and covalent substances. Chemical reactions and the mole concept are then introduced leading to stoichiometry problems. Finally, the kinetic theory of particles is used in explaining the behavior of the phases of matter.
Credits 4
Lab Hours 3
Class Hours 3
Prerequisites
MATH137L or MATH 142L with a C or better or competence as demonstrated on math placement exam.) Credit will not be given for more than one of the following courses: CHEM121L or CHEM136L.

CHEM138L : General Chemistry I

This is the first course in a full-year sequence examining the core concepts of chemistry. Students considering this course must have previous exposure to chemistry concepts, and must be prepared to work to develop their problem solving skills. Topics include atomic and molecular structure, stoichiometry, types of reactions, thermochemistry, gases, chemical bonding, molecular structures, intermolecular forces, and solutions. The laboratory component is strongly connected to the subject material and promotes student experience with experimental techniques.
Credits 4
Lab Hours 3
Class Hours 3
Prerequisites
CHEM 136L with a C or better and MATH211L with a C or better or competence as demonstrated in math placement exam.

CHEM139L : General Chemistry II

This is the second course in a full-year sequence examining the core concepts of chemistry; further expanding upon the content in General Chemistry I. Topics include kinetics, chemical equilibrium, acids and bases, thermodynamics, electrochemistry, nuclear chemistry, properties of representative elements and transition elements, and an introduction to organic chemistry. The laboratory component is strongly connected to the subject material and promotes student experience with experimental techniques.
Credits 4
Lab Hours 3
Class Hours 3
Prerequisites
CHEM 138L with a C or better.

ENVS112L : Energy and Sustainability

In this course energy will be examined holistically and scientifically. As a foundation, this course will first trace how the sun'92s energy flows through physical matter and all life forms. The interrelationship between energy flows and the earth'92s climate will also be examined. The course includes an investigation into commercial energy use and conservation. Using scientific inquiry, human sustainability will be examined in light of dwindling stocks of fossil fuels as well as technological advances in renewable energy sources.
Credits 3
Lab Hours 0
Class Hours 3
Prerequisites
Successful completion of MATH 0610 or competence as demonstrated on math placement exam. MATH 061L can also be taken concurrently.

ENVS113L : Energy and Sustainability Laboratory

In this lab companion section of the Energy and Sustainability course, students conduct hands-on activities that apply the principles in the classroom section. The lab uses scientific inquiry as a means to understand energy flows, commercial energy use and human sustainability. Students also have the opportunity to design and carry out their own research project.
Credits 1
Lab Hours 2
Class Hours 0
Prerequisites
Successful completion of ENVS112L and MATH061L or competence as demonstrated on math placement exam. MATH061L can also be taken concurrently

ENVS150L : Environmental Science

This course introduces environmental science as a complex, interdisciplinary, scientific area of study. The focus of this course is on the scientific and ecological principles basic to understanding environmental issues. Major themes examined include water quality, human population, sustainability, biodiversity, and the relationship between human society and the natural world. Coursework will include lecture, laboratory exercises, field trips and in-class discussions.
Credits 4
Lab Hours 2
Class Hours 3

GEOL160L : Introduction to Geology

This course provides an introduction to the geologic processes that make the Earth a very dynamic and active planet. The focus of this course is on discovering why processes such as volcanoes, landslides and earthquakes occur and how these processes shape the Earth'92s surface on a daily basis. Major themes examined include understanding the Earth'92s age, the rock cycle, identification of rock types and geologic features, and the interactions of atmosphere and ocean with the geological environment. Coursework will include lecture, homework, oral presentations, laboratory exercises, field trips and in-class discussions.
Credits 4
Lab Hours 2
Class Hours 3
Prerequisites
Competence as demonstrated on math placement exam or Permission of Instructor.

PHYS104L : Astronomy and Space

An introductory course designed to acquaint students with the wonders and complexity of the universe. Topics covered include Earth'92s place in the universe, the day and night skies, the origins of modern astronomy, gravity and orbits, telescopes, the solar system, newly discovered planets around other stars, types of stars, the birth and death of stars, the Milky Way and other galaxies, the Big Bang, Dark Matter and Dark Energy, and the fate of the universe. The lab component consists of outdoor observations, use of telescopes, (weather permitting), computer simulations, and scheduled trips to planetariums.
Credits 4
Lab Hours 2
Class Hours 3

PHYS125L : Technical Physics

This course is an introduction to the principles and concepts of physics. Math review, vectors, motion, Newton'92s laws, work, power, energy, friction, equilibrium, torque, concurrent forces, mechanical advantage, simple machines, and the properties of matter are covered.
Credits 3
Lab Hours 2
Class Hours 2
Prerequisites
MATH 129L or MATH 137L or MATH211L with a C or better or competence as demonstrated on math placement exam.

PHYS128L : Introduction to Physical Sciences

This fast-paced course covers the major concepts of physics and uses them in explaining how our world actually works. These concepts are developed through demonstrations and experiments and require a minimum of mathematics. What is required is the ability to conceptualize the big underlying ideas, the ability to overcome notions about what we think we see versus what is actually happening, and the ability to combine and apply previously learned concepts to explain technology. The physics content covers motion, mechanics, work and energy, thermodynamics, waves, electricity, magnetism, light, and radioactivity. Among the course topics covered are the workings of air conditioners, electric motors, musical instruments, rockets, hot air balloons, four-stroke automobile engines, and radios.
Credits 4
Lab Hours 2
Class Hours 3
Prerequisites
Competence as demonstrated on math placement exam

PHYS220L : College Physics I

This algebra-based course with integrated laboratory component is designed to help students develop thoughtful problem-solving strategies in tandem with the coverage of the course material. Topics include kinematics, dynamics, conservation laws, thermodynamics, and the properties of matter.
Credits 4
Lab Hours 3
Class Hours 3
Prerequisites
MATH137L orMATH211L with a C or better or Permission of Instructor

PHYS221L : College Physics II

This course completes the sequence for a year-long algebra-based physics course and includes an integrated laboratory. Continuing the approach used in the previous course, this course promotes student development of thoughtful problem-solving strategies by explicitly identifying and consistently applying methods to obtain solutions while considering a broad variety of problems. Course topics include oscillations and waves, optics, electricity and magnetism, and electromagnetic waves.

Credits 4
Lab Hours 3
Class Hours 3
Prerequisites
PHYS220L with a C or better

SCI261L : Independent Study in Science

Independent Study in Science is an opportunity for a student to enroll in a higher-level science class to explore focused topics in science. Some suggested topics might be the Biology of Cancer, Neuroscience or Environmental Microbiology. This course includes a lab component.

Credits 4
Lab Hours 2
Class Hours 3
Prerequisites
Permission of department chair, matriculated with a minimum cumulative GPA of 2.0, two or more courses in science with a grade of B or better.

Social Sciences

SOSC121L : Ethnography of Work

This course introduces students to anthropological perspectives and social science research methods as they investigate a range of careers. The course approaches work as a cultural system invested with meanings, norms, values, customs, behavioral expectations, and hierarchies. Through ethnographic techniques, students evaluate the myths and stereotypes about work, as well as gain insight into how and why work matters to individuals. Work life is examined in the context of contemporary dynamics of disruption, uncertainty, innovation, and diversity. Assignments encourage students to draw connections between the self and work so they are prepared to make informed decisions about majors and career paths.

Credits 3
Lab Hours 0
Class Hours 3

SOSC124L : Introduction to Sociology

Our daily lives are affected, consciously and unconsciously, by social forces and influences of which we are largely unaware. This introductory course to sociology, the scientific study of society, explores and uncovers these hidden factors behind the behaviors and attitudes of individuals, groups and societies.

Credits 3
Lab Hours 0
Class Hours 3

SOSC128L : Chemical Dependency

This course examines chemical dependency and substance abuse issues including etiology, diagnosis and treatment, the effect of alcohol and drugs on the body, family dynamics of addiction, and special topics selected by students.

Credits 3
Lab Hours 0
Class Hours 3

SOSC142L : Introduction to World Geography

An introduction to the physical, cultural, and cartographic aspects of the earth'92s regions, this course is designed to assist students in their understanding of social, political, and economic development. Topics covered are location, movement, connection, and interaction of populations in Europe, Australia, Pacific areas, South Asia, North, Central and South America, Middle East, and Africa.
Credits 3
Lab Hours 0
Class Hours 3

SOSC221L : Organizational Behavior

Coursework involves the students developing an understanding of how working together and leading people in organizations leads to the maintenance of healthy future organizations. It includes the challenges of leadership.
Credits 3
Lab Hours 0
Class Hours 3

SOSC231L : Microeconomics

This course introduces the economic concepts that are studied in microeconomics. Students gain an understanding of how consumer and producer decision making forms the basis of supply and demand and how the price system operates within a market economy to allocate scarce resources among unlimited wants.
Credits 3
Lab Hours 0
Class Hours 3

SOSC232L : Macroeconomics

This course provides an introduction and framework to the economic concepts that are studied in macroeconomics. Emphasis is placed on the following topics: physical and financial markets, national income accounting, savings and investment, business cycles, economic growth, inflation, unemployment, money and the central bank, and the role that government plays in the economy.
Credits 3
Lab Hours 0
Class Hours 3

SOSC235L : Children, Youth and Families

Students are provided an introduction to families from a sociological and systems perspective. The interplay between families and the larger society is the background against which the phenomena of childhood, adolescence and parenting are examined. Topics include, but are not limited to, poverty, delinquency, disability, aging, self-determination, community supports and interventions.
Credits 3
Lab Hours 0
Class Hours 3

SOSC299AL : Juvenile Delinquency

We will study juvenile delinquency through a sociological lens, focusing on the following questions: What is juvenile delinquency? What theories help us understand the causes and consequences of delinquency? What is the relationship between juveniles and the justice system? What policies and practices best address delinquency? Throughout the course, we will focus on applying social science theories to current events and policy issues in this field.
Credits 3
Lab Hours 0
Class Hours 3

SOSC299L : Special Topics in Social Science

Researchers in the Social Sciences ask and answer a broad range of questions about who we are, how we navigate society, and how society shapes the choices and options that are made available to us. Many of these questions are briefly discussed in introductory courses, but time constraints limit the attention that can be given to each topic. This course provides space to further explore some of these key questions and themes. The theme of this course changes each semester, but possible areas of focus include delinquency and deviance, education, and social inequality.
Credits 3
Lab Hours 0
Class Hours 3

SOSC299L : Special Topics in Social Science

Researchers in the Social Sciences ask and answer a broad range of questions about who we are, how we navigate society, and how society shapes the choices and options that are made available to us. Many of these questions are briefly discussed in introductory courses, but time constraints limit the attention that can be given to each topic. This course provides space to further explore some of these key questions and themes. The theme of this course changes each semester, but possible areas of focus include delinquency and deviance, education, and social inequality. May be repeated for credit when course content changes; may be taken with other topics courses during the same semester.

Credits 3
Lab Hours 0
Class Hours 3