

**Plymouth State University
College of Graduate Studies**

Graduate Academic Catalog 2010–2011

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Catalog Limitations

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President's Message

I would like to extend my warmest welcome to you as either a new or continuing graduate student at Plymouth State University.

This is an exciting time for PSU. Our options in the College of Graduate Studies are growing. Whether you want to enjoy a course for personal or professional enrichment, create a self-designed program, enter one of many exciting master's programs, or pursue a Certificate of Advanced Graduate Studies or Doctor of Education degree, we have options for you.

As a graduate student at PSU, you will work closely with faculty members who are dedicated mentors and researchers with a tradition of excellence, in locations on and off campus as well as online. Please know that all of us at Plymouth State University are committed to offering you a first-rate graduate experience and to helping you achieve your personal and professional goals.

All my best wishes,



Sara Jayne Steen

President



The University

INTRODUCTION

Plymouth State University has a long tradition of meeting the evolving educational needs of New Hampshire and New England. Established in 1871 as Plymouth Normal School, the institution became Plymouth Teacher's College in 1939, Plymouth State College in 1963, and Plymouth State University in 2003. A founding member of the University System of New Hampshire, and accredited by the New England Association of Schools and Colleges (NEASC), Plymouth State now serves New Hampshire and the New England region as a comprehensive institution of higher education.

PSU has an enrollment of approximately 4,300 undergraduate and 2,700 graduate students. The University confers BA, BFA, and BS degrees as well as master's degrees, Certificates of Advanced Graduate Studies in selected areas, and the Doctor of Education in Learning, Leadership, and Community. In addition to outstanding programs in education, business, humanities, arts, and the natural and social sciences, the University houses centers and institutes for meteorology, the environment, New Hampshire studies, and rural partnerships, all of which are hallmark outreach programs. Professional outreach activities and graduate courses are offered at several satellite locations throughout the state, and articulation agreements with other campuses of the University System and the Community College System of New Hampshire offer a variety of program and transfer opportunities. The University also contributes directly to the ongoing academic and cultural life of the region by providing a variety of continuing education programs, concerts and theater performances, art exhibits, and the athletic events of 17 varsity sports.

PSU's attractive residential campus of wide greens, tree-lined walkways and traditional brick buildings with an array of towers is located in the White Mountains and Lakes Region of New Hampshire, a pristine rural setting of great natural beauty and multiple outdoor recreational opportunities within easy access of the New England region. The 170-acre campus incorporates modern facilities such as the Lamson Library and Learning Commons; the Boyd Science Center; Langdon Woods, a LEED certified, environmentally conscious residence hall; and PSU's newest addition, a Welcome Center and Ice Arena.

The College of Graduate Studies has 90 full-time faculty members (approximately half of the total number of PSU faculty) who teach in various graduate programs, and more than a third of them serve as graduate program coordinators. In addition, the College of Graduate Studies seeks out qualified experts to serve as adjunct instructors in programs that complement the offerings of full-time faculty. Currently, more than 300 graduate faculty

members, the majority of whom hold doctoral or other terminal degrees in their fields, teach in the various graduate programs at PSU. Each graduate student is assigned a faculty member as an advisor who assists the student in planning coursework to meet personal and professional goals.

ACCREDITATION

Plymouth State University is accredited by the New England Association of Schools and Colleges (NEASC). This accrediting body is a nationally recognized, non-governmental organization whose mission is to evaluate the quality and integrity of educational programs. A committee of college and university administrators and faculty throughout New England spend considerable time evaluating schools seeking this accreditation. Institutions earning this accreditation are judged to be providing educational experiences that can be transferred to any other accredited college or university in the nation.

The professional education programs at PSU are accredited by the National Council for Accreditation of Teacher Education (NCATE), an organization recognized by the U.S. Department of Education and the Council for Higher Education Accreditation to accredit programs for the preparation of teachers and other school personnel. This accreditation applies to initial teacher preparation and advanced educator preparation programs. Plymouth State University is also approved by the New Hampshire Board of Education. Program-specific accreditations include the following:

- Athletic training program accredited by the Commission on Accreditation of Athletic Training Education (CAATE)
- Health education program accredited by the Society for Public Health Education (SOPHE) and the American Association for Health Education (AAHE)
- Master of Business Administration and undergraduate degrees in business accredited by the Association of Collegiate Business Schools and Programs (ACBSP)
- Master of Education in Counselor Education, including mental health counseling and school counseling concentrations, accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP)
- Social work program accredited by the Council on Social Work Education (CSWE)

MISSION

As a public regional university, PSU serves New Hampshire and New England by providing well-educated graduates, by offering ongoing opportunities for graduate education and professional development, and by extending to communities partnership opportunities for cultural enrichment and economic development. In each of these roles, PSU has a special commitment of service to the North Country and the Lakes Region of New Hampshire. As a Carnegie Master's/L University,

PSU confers a comprehensive range of baccalaureate degrees, master's degrees, certificates of advanced graduate studies, and a doctoral degree.

The College of Graduate Studies strives to prepare exceptional practitioners in a variety of disciplines through excellence in academic programs. Its commitment extends beyond New England to the rest of the nation and the world. Professionals develop the knowledge, skills, and dispositions they need to initiate change and provide visionary leadership within a framework that promotes individual dignity, respects diversity, and seeks distributive justice.

The purpose of graduate study is to:

- promote intellectual curiosity;
- investigate advanced subject matter in depth and breadth;
- master scholarly techniques and developmental research;
- cultivate an atmosphere of intellectual discipline that facilitates faculty and student scholarship and research;
- contribute to the knowledge base of professionals and improve society's understanding of the systems in which people, organizations, and communities thrive.

The College of Graduate Studies contributes directly to ongoing academic, cultural, and community life by providing a variety of professional development programs, theater collaboratives, art exhibitions, symposia, and service-based partnerships. It also provides multiple opportunities and support for research-based initiatives.

VALUES

The University motto, *Ut prosim* (That I may serve), underscores the values upon which Plymouth State University's mission is built. The College of Graduate Studies has a strong commitment to adult learners. This commitment is demonstrated by responding to students' needs; helping students meet their personal and professional goals; and collaborating in the development and delivery of flexible and accessible academic programs.

The College of Graduate Studies is dedicated to providing a learning environment that supports development of the mind, body, and spirit. By providing a solid foundation for continuous learning, students are encouraged to grow and serve as scholars and professionals. The College of Graduate Studies recognizes the contributions of faculty and students to disciplinary and interdisciplinary best practices.

Learners are encouraged to be active agents in their graduate programs through dynamic collaboration with our diverse faculty of scholars and practitioners. The graduate programs foster inquiry and critical thinking through a commitment to the following hallmarks:

- Leadership and advocacy
- Scholarship and action/application
- Reflection and innovation
- Professionalism and service
- Global awareness and social responsibility

Plymouth State is dedicated to providing learning experiences that promote understanding and respect for all people, and constructive discourse that includes a range of perspectives. The University strives to create an environment that embraces diversity, equity, and inclusiveness for the entire community.

VISION

The University's educational philosophy is based on the concepts of learner-centered teaching, experiential learning, and academic excellence. The PSU education features a complementary relationship between liberal arts and professional studies, between academic and personal development, between service and individual growth, and between the University campus and the larger community. Programs of study are designed to engage students and prepare them for gratifying and productive careers.

The College of Graduate Studies programs provide professional competency and leadership as well as the advancement of knowledge in specialized areas. In graduate programs, experiential learning in the world of career and professional practice such as internships, field experiences, service learning, study abroad programs, and other practical learning partnerships allow students to become directly involved in testing and applying academic theories and ongoing personal and professional development.

HISTORY

Founded in 1871 as a teacher training college, PSU has expanded to 170 acres and 47 buildings. Preserving the brick-and-ivy look of its New England small college heritage while integrating state-of-the-art technology and facilities, PSU combines an attractive, contemporary campus design and a dynamic educational environment.

Plymouth State is the only public graduate university located north of Concord, New Hampshire's capital city. However, the University is accessible to students throughout the state not only because of its central location, but because it offers classroom courses in many locations throughout New Hampshire as well as online.

The University has provided high-quality graduate education for students in education since 1948 and in business since 1974. The Certificate of Advanced Graduate Studies program was

first offered in 1997, the Master of Arts in Teaching degree was approved in 2004, and in 2005, the Master of Science degree program began. Most recently, a Doctor of Education degree in Learning, Leadership, and Community was introduced in 2009. Plymouth State also offers educator and professional certification programs, and articulation agreements exist with other universities for doctoral studies.

An overwhelming majority of alumni look back on their education with pride and satisfaction. Faculty members, who have rich and varied backgrounds in field settings, are committed to maintaining a vigorous, stimulating, and action-oriented experience for students.

CAMPUS

Nestled between the Lakes Region and the foothills of the White Mountains, Plymouth's main campus is located in the picturesque town of Plymouth, NH, just minutes from Interstate 93. The University has five sites listed on the New Hampshire Heritage Trail, including its landmark Rounds Hall, home to the education and social science departments. Rounds Hall contains a bell in the clock tower cast by apprentices of Paul Revere. Robert Frost lived in Frost House from 1911 to 1912 while he taught education and psychology at Plymouth. Holmes Rock marks the site of Holmes Plymouth Academy, established in 1808 as the first training school for teachers in New Hampshire.

The beautifully restored Draper & Maynard Building, home to the art department and the health and human performance department, was originally a factory for the country's largest sporting goods supplier. The World Champion Boston Red Sox visited the factory in 1916; this visit was memorialized by a now-classic photo of Babe Ruth sewing a cover on a baseball.

The Silver Center for the Arts, which hosts world-class performers year-round in Plymouth, was once the site of a stop on the Underground Railroad. It is home to the University's Department of Music, Theatre, and Dance, and is equipped with a 665-seat main stage theatre, a 174-seat recital hall, and a multipurpose black-box studio theatre, as well as classrooms and practice facilities.

A multimillion dollar renovation to the Boyd Science Center was completed in the fall of 2003. The facility is a resource to the Lakes Region and North Country. The Judd Gregg Meteorology Institute, also established in 2003, houses the Plymouth State Weather Center, one of the most sophisticated weather centers in the country. The Center for the Environment was established in 2004 to address the science, policies, culture, and economics of the natural environment in northern New England through research, education, and collaboration. The center focuses on

applied environmental problems and engages local communities and organizations in environmental demonstration projects that integrate the natural and human environments.

The Hartman Union Building (known as the HUB), located in the center of campus, houses the Mountain View Snack Bar and Sidewalk Café, the PSU Bookstore, fitness and aerobics rooms, a gymnasium, meeting rooms, administrative offices, and offices for student government, media, and activities.

Herbert H. Lamson Library and Learning Commons is a state-of-the-art, integrated research and technology center that provides PSU students, faculty, staff, and the community with access to a wide variety of research tools and materials, information technology resources, and academic support services. At Lamson Library and Learning Commons students can:

- find resources for research projects;
- get answers to technology questions from the ITS Help Desk;
- create striking digital films and multimedia presentations;
- surf the Web through the wireless Internet service;
- meet with a writing consultant or peer tutor;
- enjoy a cup of coffee or a snack at the Commons Cafe.

The Welcome Center and Ice Arena seats 862 spectators and serves as a teaching facility for instruction and research in ice activities, a home for Panther varsity men's and women's ice hockey teams, and a site for student recreation. The Ice Arena is also a venue for community skating, including high school athletics, adult and youth hockey leagues, figure skating, and recreational skating.

The Ice Arena features a Welcome Center lobby and facilities that provide an attractive meeting place for prospective students, parents, and visitors to the campus, as well as the towns of Plymouth and Holderness, and the wider region.

OFF-CAMPUS SITES

To meet the needs of working students, the College of Graduate Studies has opened a site at 2 Pillsbury Street in Concord, NH. Additionally, courses are offered at Granite State College, Keene State College, Franklin Pierce University, Southeastern Regional Education Service Center (SERESC), North Country Education Services in Gorham, Silver Fox Inn at Waterville Valley, and other educational agencies and facilities throughout the state. The University has strong relationships with the Hubbard Brook Experimental Forest, Squam Lakes Association, and the Humboldt Field Research Institute in Maine, which provide students the opportunity for field-based research and education.

OUTREACH AND PARTNERSHIPS

More than 25 partnerships with online learning providers and professional organizations offer an alternative for students to

fulfill graduate program requirements. Visit plymouth.edu/graduate/partnerships for the latest online and collaborative partnership information.

During the summer, students come from American International Schools and Department of Defense schools to complete degree programs. Graduate students include teachers from Australia, Austria, Canada, China, England, Germany, Greece, Kuwait, the Netherlands, Pakistan, Russia, Saudi Arabia, Spain, Turkey, and other countries.

Many graduate programs offer the opportunity for international study. Graduate students have traveled for a wide variety of educational experiences to Australia, England, France, Greece, Ireland, Israel, Italy, New Zealand, Scotland, and South Africa.

In addition, individualized degree programs may be developed in partnership with international schools. These programs combine the best of online education with the professional development initiatives of partner schools. Summer coursework at PSU may be required to complete specific degree requirements.

SCHOLARLY SOCIETIES

Delta Mu Delta is a national honor society that recognizes and rewards business administration students who have distinguished themselves scholastically, as well as members from the academic or business community who have demonstrated distinguished scholarship, business ability, or leadership. Delta Mu Delta candidates must be in the top 20 percent of their class and have a grade point average of 3.25 or higher.

There are currently more than 170 chapters of Delta Mu Delta at colleges and universities throughout the United States, and more than 85,000 members. Plymouth State University has been initiating undergraduate and graduate students as Delta Mu Delta members since 1998.

Phi Delta Kappa, a professional honor society, is an international organization for graduate students in education who exhibit leadership characteristics and show high promise for and commitment to improving educational institutions in society. An initiation ceremony and reception are held annually in May.

Eta Sigma Gamma is a national professional honor society that furthers the competence and dedication for the health education profession. Graduate students and professionals in the health education field are invited to join.

Graduate Academic Calendar 2010–2011

FALL TERM 2010

Term begins	September 1
Labor Day holiday (no classes)	September 6
Summer term grades due	September 8
Deadline to petition to graduate on 12/31/10	October 1
Columbus Day holiday (no classes)	October 11
Veterans Day holiday (no classes)	November 11
Thanksgiving Recess	November 25–28
Term ends	November 30

WINTER TERM 2010–2011

Term begins	December 1
Deadline to petition to graduate on 5/14/2011	December 1
Fall term grades due	December 7
Winter Holiday (no classes)	December 23–January 2
Classes resume	January 3
Martin Luther King Jr. Day (no classes)	January 17
Term ends	February 28

SPRING TERM 2011

Term begins	March 1
Winter term grades due	March 7
Spring Break (no classes)	March 21–25
Classes resume	March 28
Deadline to petition to graduate on 8/31/2011	May 1
Graduate Commencement (10 a.m.)	May 14
Memorial Day holiday (no classes)	May 30
Term ends	June 30

SUMMER TERM 2011

Term begins	July 1
Independence Day holiday (no classes)	July 4
Spring term grades due	July 7
Term ends	August 31

Please note that MS and Athletic Training courses are scheduled predominately on the undergraduate semester schedule.

Academic Policies and Procedures

UNIVERSITY SYSTEM OF NEW HAMPSHIRE POLICIES AND PROTOCOLS

Every employee, faculty member, and student at PSU is subject to both the obligations and the protections of University System of New Hampshire policies. Some key policies are listed below. Refer to the PSU Student Handbook at plymouth.edu/stulife/handbook for additional information on policies and procedures.

A FAIR AND SAFE LEARNING ENVIRONMENT

Plymouth State University takes seriously its responsibility to provide a safe and fair place in which to learn. As such, it is the responsibility of all faculty and staff members to deal honestly, fairly, and respectfully with students, coworkers, and all other individuals associated with the University. The University actively supports these policies. For more information or to discuss any of these policies, please contact the College of Graduate Studies.

ACADEMIC INTEGRITY

Academic integrity is the foundation of the pursuit of knowledge. All members of the academic community are expected to be dedicated to the pursuit of knowledge in an honest, responsible, respectful, and ethical manner. Every violation of academic integrity is an affront to the academic community. Violations of academic integrity make fair evaluation impossible and cast doubt upon the seriousness with which students accept the responsibility of acquiring an education.

Members of the academic community are expected to report all instances of those violations that come to their attention. Both faculty and administration consider it their duty, as guardians of academic standards and intellectual honesty, to enforce the policy by prosecuting all cases of violations of academic integrity to the fullest extent. Students are urged to consider that it is the toleration of violations of academic integrity, and not the reporting of it, that is dishonorable. Visit plymouth.edu/registrar/policies/academic_standing for more information on University policies and procedures regarding academic integrity.

Definitions

Violation of academic integrity includes any act that portrays a member of the academic community as having acquired knowledge through legitimate study or research that, in fact, has been stolen. Violation of academic integrity includes also any act that gains one member of the academic community an unfair advantage over another. This includes any act hindering the academic accomplishment of another.

Examples of violations of academic integrity include, but are not limited to, the following:

- Providing or using unauthorized books, notes, or other sources of information during an examination
- Submitting another person's work as one's own: plagiarism. This includes copying during examinations; purchasing papers or taking them from World Wide Web resources; copying papers, reports, laboratory results, or computer work; quoting or paraphrasing library or World Wide Web sources without proper citations.
- Doing work for which another person will receive credit. This includes allowing one's examination answers, reports, laboratory results, or computer work to be submitted by another person as his or her own work.
- Falsifying, through forgery or other alteration, academic documents such as transcripts, registration materials, withdrawal forms, or grade reports
- Reading, removing, copying without authorization, or stealing any academic document, exam, or academic record maintained by any member of the faculty or administration
- Using unauthorized assistance in the laboratory, at the computer terminal, or on field placement
- Stealing, copying, or destroying another person's computer program or file, deliberately preventing or depriving another's access to the University computer system or resources, or impeding the system's performance
- Stealing, or removing without authorization, books or periodicals from the library, or mutilating library materials
- Falsifying or fabricating data or results of research or field work
- Lying in connection with an academic integrity hearing

Procedure

In cases where a violation of academic integrity in coursework is suspected, or in other cases of suspected violations, the individual making the discovery must initiate proceedings with the advisor and the associate vice president for the College of Graduate Studies.

CLASS CANCELLATION

Notifications of University-wide cancellations due to inclement weather are advertised on WMUR-TV Channel 9, the PSU Web site at plymouth.edu, and the College of Graduate Studies Web site at plymouth.edu/graduate. Call the PSU Storm Line (603) 535-3535 for the latest updates on weather-related issues or register for PSU Alerts through myPlymouth. Individual class cancellations are determined by faculty. In the event of an individual class cancellation, students will be notified through their PSU e-mail address. It is important for students to check their PSU e-mail for these and other important University announcements.

Course charges, fees, and academic regulations are subject to change without advance notice. PSU reserves the right to cancel, postpone, or combine class sections, and to limit registrations or

change instructors. Students in cancelled classes will be notified so they may enroll in an alternative class or receive a refund. Please note: All room assignments and course offerings, dates, and times are subject to change. New classes are added on a regular basis. Please visit the graduate Web site at plymouth.edu/graduate for the latest updates.

DRUG-FREE ENVIRONMENT

Plymouth State University is committed to ensuring a drug-free environment. Students are required to comply with the drug-free policy, which prohibits the unlawful manufacture, distribution, dispensing, possession, or use of any controlled substance or alcohol in or around the campus or classroom.

NON-DISCRIMINATION

The University, in accordance with federal and state laws and regulations, does not discriminate on the basis of race, color, religion, national origin, gender, sexual orientation, gender identity or expression, age, veteran's status, or disability, in admission or access to, treatment of, or employment in its programs or activities. Inquiries regarding this policy should be made to:

Vice President for Student Affairs
Plymouth State University
MSC 4
17 High Street
Plymouth NH 03264-1595

Further inquiries may also be addressed to the Director, Office of Civil Rights, United States Department of Education, Washington DC 20201.

PRIVACY AND DISCLOSURE OF ACADEMIC RECORDS

A federal law, the Family Educational Rights and Privacy Act of 1974 (popularly known as the Buckley Amendment or FERPA), establishes certain rights for students with regard to their education records. In brief, the act provides students the right to inspect their personal education records (with some exceptions), the opportunity to contest the contents of their records, and protection from unauthorized disclosure of their education records to third parties outside the University. The University is not permitted to disclose personally identifiable information from the student's education record without the prior written consent of the student, or only under acceptable disclosure provisions in FERPA.

Access without prior approval of students is permitted to University faculty and staff with a need to have access to educational information, to appropriate federal and state officials with statutory authorization, to accrediting agencies and educational testing organizations, to the parents of dependent students and, in an emergency, to other appropriate persons

acting to protect the health and safety of students and others.

At PSU, the education records of students are released to parents only upon written request by students or by the parents of dependent students with proof of dependency. Some educational records maintained by the University are not open to access by students; these include confidential letters of recommendation to which the student has waived access, the financial records that parents have submitted to the University, medical and counseling records used in providing treatment to the student, the records of University Police, records containing information on more than one student, and records in the possession of the maker that are not accessible to other individuals. This last exception includes, for instance, the grade books of instructors and the desk files of faculty and administrators.

The University is permitted to release the following "directory information" without the prior consent of the student: name, place and date of birth, enrollment status, most previous educational institution attended, campus address, e-mail address, phone number, degree, field of study, grade level, participation in recognized activities and sports, and height and weight of athletic team members. Grades are considered "directory information" to the extent of publishing honor rolls and in selecting students to honor societies or to receive academic scholarships. Students have the right to restrict disclosure or release of any or all "directory information." Requests must be submitted in writing to the dean of student affairs within 10 class days after the beginning of fall or spring term. See the current student handbook for further information: plymouth.edu/stulife/handbook. Important information regarding judicial records is also included in the student handbook: plymouth.edu/stulife/handbook/judicial/records.htm.

SEXUAL HARASSMENT

All faculty, staff, and students have a right to work and learn in an environment that is free of discrimination and harassment, including freedom from inappropriate, offensive, or harassing behavior. Such behavior violates PSU's policy, as well as state and federal law. Any faculty member, staff member, or student who violates this policy is subject to disciplinary action.

Sexual harassment means unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature when:

- such conduct has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile, or offensive working or academic environment;
- submission to, or rejection of, such conduct by an individual is used as the basis for employment or academic decisions

affecting the individual;

- submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or academic work.

It is not possible to list every type of behavior that could be considered sexual harassment. The circumstances under which the behavior occurs have an impact on whether or not it is considered or perceived to be sexual harassment.

The following are examples:

- Unwelcome sexual propositions
- Graphic comments about a person's body
- Sexually suggestive objects or pictures in the workplace
- Derogatory or sexually explicit statements about an actual or supposed sexual relationship
- Derogatory, gender-based humor

It is important to note that one cannot assume conduct is acceptable simply because an individual does not openly protest against it. In addition, some conduct may be considered sexual harassment even if it is not intended as such. In general, common sense is the best guide—treat other individuals fairly and with respect.

Any reported incident involving sexual harassment by a faculty or staff member of the University must be reported to the human resources director, a vice president, the dean of student affairs, or Public Safety/University Police. There is no right of confidentiality by any University faculty or staff member regarding this type of violation. Reporting is mandatory by law.

SMOKING

As required by law and in recognition of the health hazards of smoking and second-hand smoke, PSU prohibits smoking in all buildings and facilities, including offices, classrooms and laboratories, studios, libraries, theaters and auditoriums, gymnasiums and athletic areas, and public reception areas. Smoking may be allowed in specifically designated outdoor areas. Smoking is not allowed within 20 feet of any PSU building or controlled premise, adjacent to air intake units, outside stairways, or on entrance ramps. Smoking may also be prohibited in areas reserved for events where the sponsor determines the interests of non-smokers need to be protected. Some examples are graduation ceremonies, University receptions and events, groundbreaking ceremonies, and outdoor concerts.

PROGRAM OF STUDY

All graduate students are required to have a written program of study on file at the College of Graduate Studies within the first term after acceptance. The program of study must be approved and signed by the student, his or her advisor, and the associate

vice president for the College of Graduate Studies. The program of study specifies each course comprising a graduate program concentration and the term or year in which the course is likely to be taken. Changes to the program of study may be made only with the advisor's and the associate vice president's approval.

Program of study forms are available from the advisor and the College of Graduate Studies. The associate vice president for the College of Graduate Studies oversees all programs of study.

INDEPENDENT STUDY

An independent study is a special, individualized project of one to three graduate credits. The study must cover material not found in regularly offered courses. It requires a contract between the student and instructor specifying the project to be accomplished. Graduate Independent Study forms are available at plymouth.edu/graduate/forms or at the College of Graduate Studies Office. The completed Graduate Independent Study form must be submitted with the signed registration form. Independent studies are only available to admitted graduate students.

INDIVIDUAL ENROLLMENT

If extenuating circumstances exist, students may be permitted to register for an individual enrollment. This option only applies to required courses on the student's approved program of study. To register, an application for individual enrollment (available at plymouth.edu/graduate/forms or at the College of Graduate Studies Office) must be completed and submitted with the registration form.

CONTINUATION FEE

In some circumstances, a graduate student will have completed or will have been enrolled in the prescribed courses or credits listed in their program of study, but may not have completed their degree requirements, such as final completion of a thesis, dissertation, or project. In such cases, where the student's faculty advisor determines that it will take more than half of the next enrollment period for the student to complete the final degree requirements, the student will be required to pay a continuation fee equivalent to three credits for that period. This fee would also be required for subsequent enrollment periods, if additional time beyond more than half of the period would still be needed. The student will be charged the current in-state or out-of-state per credit tuition rate based on residency.

GRADUATE COURSE SCHEDULING

All courses at PSU are identified by a discipline code and a four-digit course number. Graduate courses are identified by a number 5000 or above, (e.g., ED 5030). Mathematics courses numbered MG 3XXX or MG 4XXX may be taken for graduate credit.

Graduate courses are scheduled on a term structure with the

exception of Master of Science and athletic training courses, which follow the undergraduate semester schedule. Courses are offered during the following terms:

Summer	July 1–August 31
Fall	September 1–November 30
Winter	December 1–February 28 (29)
Spring	March 1–June 30

The term structure allows students to register for multiple courses in a year. The majority of graduate courses are scheduled during evenings, weekends, weeklong institutes, or online. Some degree programs, such as counseling and athletic training, and educator certification options, have specific residency and undergraduate course requirements unique to these areas of study.

Course schedules are released online at plymouth.edu/graduate/courses prior to the term start date.

GRADING SYSTEM

All graduate students must maintain at least a 3.0 (B) grade point average. The graduate grade range is A through C- and F. There are no D grades as the College of Graduate Studies recognizes C as the lowest passing grade. Students in the program must attain a grade of B- or better in all master's core education courses.

Letter grades, with pluses and minuses noted, are used to assess the relative extent to which students achieve course objectives in the vast majority of PSU courses. Grade point average is calculated on a term and a cumulative basis that takes into account all grades earned by a student during their academic career at PSU, including those earned prior to starting coursework toward a degree or certification program.

Grade Point Average: The following grade point system is used to determine grade point average:

Grade	Points per Credit
A	4.00
A-	3.67
B+	3.33
B	3.00
B-	2.67
C+	2.33
C	2.00
C-	1.67
F	0.00

Administrative Failure

An Administrative Failure (AF) notation is placed on a student's transcript when an instructor does not have sufficient information to assign a letter grade in a graded course. Frequently, administrative failure stems from failure to formally

drop a course. An AF counts as an F grade in grade point average calculation and is not a reason for a course withdrawal.

Unsatisfactory Progress

An admitted graduate student is making unsatisfactory progress if any of the following conditions are present at the end of each term:

- A cumulative grade point average (GPA) below 3.0
- One or more failing grades (F or AF)

Graduate student progress is tracked each term by the program's administrative staff. Students are notified in writing if they are not making satisfactory progress. A copy of the student's unsatisfactory progress letter is also sent to the program advisor.

Students who have not made satisfactory progress must meet with their program advisor within the current term to review their program of study and plan steps to attain satisfactory progress. Students then have one additional term to improve the conditions of their unsatisfactory progress status. Additional coursework cannot be pursued until the student and their program advisor have met and developed a plan to correct the unsatisfactory progress status. If the student does not follow this plan within the time frame or fails to meet with their advisor, dismissal from the degree program will occur. Should the student want to continue, he or she must reapply and be accepted into the program.

Please note that unsatisfactory progress may impact veterans' and eligible dependents' receipt of GI Bill benefits.

Inactivity or Withdrawal from the College of Graduate Studies

Admitted graduate students have an obligation to show progress toward earning a degree. Students who do not take at least one course during any two-year period will be considered inactive and informed of this status in writing. Once notified of their inactive status, students must request reactivation in writing within ten business days. The student's program of study must still be completed within the original six-year program period. An inactive student will lose access to myPlymouth, and his or her student ID will be deactivated.

After three years of inactivity, a student will be automatically withdrawn from the graduate program and will receive written notification of the withdrawal. At that time, the student's enrollment documents will be destroyed, unless the student immediately submits a written request for continuation. If, at a later date, the student decides to reenroll in the graduate program, new application materials and application fee must be submitted for the admissions board to review for readmission.

Any student who chooses to withdraw from the program must notify the College of Graduate Studies in writing.

Repeat Policy

Students are allowed to retake a course in which they earned a failing grade. Credits and grade points for the first grade will be deleted from the cumulative record, while the grade itself will remain on the transcript and the repeat noted with an E (Exclude) next to the grade. The course information will be listed in the usual manner the second time it appears on the transcript. This policy does not apply to courses that are repeatable, such as independent studies or special topics offerings.

Attendance Policy

Students are urged to recognize the importance of participation in class activities and to be aware that grades may be affected by absences or lack of participation during online coursework. Instructors shall determine the class attendance policies.

Instructors outline attendance policies and the effect multiple absences have on final grades in the course syllabus. Course syllabi are distributed during the first class meeting, posted online, or can be requested from the instructor in advance. In classes that use online classroom management software (such as Blackboard or Moodle), online student activity is recorded and may be used to determine participation. Instructors maintain records to show the attendance policy is being followed.

Fair Grading Policy

Fair and equitable grading reflects values to which all members of the PSU community commit themselves. Grades are used to assess the relative extent to which students achieve course objectives in all for-credit courses at PSU.

Academic freedom allows instructors to determine course objectives within the bounds of established curricula, and the means by which a student's mastery of those objectives will be evaluated; and evaluate the quality of work on individual exams or assignments.

Standards for Fair Grading

To achieve fair and equitable grading, instructors shall inform students, in writing, (i.e., via a syllabus) of the course objectives and the means by which student mastery of those objectives will be determined. Instructors are expected to share this information with students during the first class meeting and to provide this information, in writing, no later than the second class meeting. These arrangements cannot be altered after the class has met for one-quarter of its scheduled class meeting time if the changes negatively impact the student. The student's grade shall be based solely on the criteria known to all students in the class and all such criteria shall apply to mastery of stated course objectives.

Examples of violations of the fair grading policy include, but are not limited to, the following:

- Allowing alternate work to substitute for coursework assignments for a particular student or group of students when that option has not been stated in the syllabus as available to all students
- Allowing a student to perform extra work, over and above that described in the syllabus, to influence her or his grade, when that same opportunity has not been made available to all students
- Allowing students to perform extra work after final grades have been submitted to improve their grade

Exceptions to the above violations may be allowed in cases related to documented learning disabilities when alternative testing arrangements have been made through Plymouth Academic Support Services (PASS) and in cases where there are documented serious extenuating circumstances.

Incompletes and Extensions

An instructor may decide to enter a grade of incomplete (IC) on a student's record if unusual circumstances prevent completion of the course on time, and a minimal proportion of the total class work needs to be completed. This agreement is finalized on a Request for a Grade of Incomplete form and submitted to the Registrar's Office by the instructor when final grades are due. The course must be completed by the date specified by the instructor, by the end of two years, or by the student's graduation, whichever comes first. If the course is not completed by the expiration of this period, a grade of F will be recorded unless the instructor has stipulated a different grade on the request form. A student may not graduate with an incomplete on his or her transcript. *Note: a student with an outstanding incomplete in a course may not register again for that course.*

Certain designated courses, (e.g., practica or research courses in the MED program and CAGS foundation courses (EP 7010–7070)) may extend longer than one term by a grade of E. The grade of E remains until course requirements are completed, with a maximum deadline of two years. If the E is not completed by the end of two years, a grade of F will be recorded. A student may not graduate with an E on their transcript. *Note: a student with an E grade in a course may not register for that course again.*

Pass/No Pass Courses

Some courses at PSU are designated as being Pass/No Pass. Credits earned by passing these courses are added to the total credits earned (graded and transfer courses as well as credit-by-exam). Pass/No Pass credits are also included in credits attempted. Credits earned in Pass/No Pass courses do not affect grade point average.

TRANSFER CREDITS

Transfer credits from other accredited institutions may be accepted. Grades for transfer courses must be at the B level or higher, and appropriate to the program attempted at PSU. Only credits are transferred, not grades; therefore, the grade for transfer courses does not count toward the required 3.0 grade point average for program completion. Courses more than six years old at the time of acceptance may not be counted toward or transferred to a graduate program. Typically, no more than nine credits can be accepted in transfer.

An official transcript must be on file at the College of Graduate Studies Office before credits can be considered for transfer to a program. Course descriptions or course outlines or both may be requested in order to determine credit consideration.

Students should be aware that decisions about acceptance of credit in transfer are up to the receiving institution. There is no guarantee that credits earned while enrolled at Plymouth State University will be accepted by another educational institution.

COURSE AUDITS

Students who want to take a course for their own interest or development, but not for credit, may register to audit most courses. Auditors are usually not required to complete normal class requirements. No grades will be issued to students who have registered as auditors. An AU will be entered on the transcript for the audited course. In general, half tuition is charged for auditing a class, with the exception of technology, lab, and studio classes, which are subject to the full tuition rate. Permission of the instructor is required for all course audits. A status of audit must be clearly indicated on the course registration form for accurate processing. Auditing is not permitted in doctoral-level courses.

GRADUATE COURSE ENROLLMENT AND COURSE LOAD

Students who are registered for at least three (3) credits in a term are considered to be enrolled as half-time graduate students. Those who are registered for at least six (6) credits in a term are considered to be enrolled as full-time graduate students.

TERM	HALF-TIME	FULL-TIME
Summer	3 credits	6 credits
Fall	3 credits	6 credits
Winter	3 credits	6 credits
Spring	3 credits	6 credits

Course Overload

Graduate students are in overload when they register for more than 12 credits in one term. Permission of the associate vice president for the College of Graduate Studies is required for overload registration.

Course Add, Drop, and Withdrawal Policy

Course changes are not official until processed by the College of Graduate Studies. All forms must be filled in completely and include the student's signature to be processed. Forms can be faxed, mailed, or delivered in person to the College of Graduate Studies. A \$25 administrative fee will be assessed for each course change. It is the student's responsibility to initiate the add, drop, or withdrawal process. Attendance in a class does not constitute an official add, and failure to attend class, notify the instructor, or make complete payment does not constitute an official drop or withdrawal.

Course Adds

Courses may be added up until the start of the class, pending availability. Students may add a course with the permission of the instructor after the course has started. A \$25 non-refundable administrative fee will be assessed for each added course.

Dropping or Withdrawing from a Course

To determine drop/withdrawal eligibility, please refer to the section below that describes the course schedule. A drop or withdrawal form must be received at the College of Graduate Studies by the indicated deadline in order to be eligible for the specific drop or withdrawal. A \$25 non-refundable administrative fee will be assessed for each dropped or withdrawn course. All forms must be completed and include the student's signature to be processed. Forms can be faxed, mailed, or delivered in person to the College of Graduate Studies. It is the student's responsibility to initiate the drop or withdrawal process. Failure to attend class, complete coursework, notify the instructor, or make complete payment does not constitute an official drop or withdrawal. Courses withdrawn will remain on the academic transcript with a withdrawn code of W for the grade. Grades of W do not impact grade point average.

Course Drop/Withdrawal Schedule

10–16 week face-to-face courses, fully online courses, or blended/hybrid courses with three or fewer face-to-face meetings

DROP PERIOD	WITHDRAWAL PERIOD	NO WITHDRAWAL PERMITTED
Last business day of week two of the course	First business day of week three of the course through last business day of week seven of the course	After last business day of week seven of the course

Blended/hybrid courses with four or more face-to-face meetings, or block and intensive courses

DROP PERIOD	WITHDRAWAL PERIOD	NO WITHDRAWAL PERMITTED
Prior to second class meeting	On second class meeting but before fourth class meeting	Fourth class meeting or later

Weekend/Weeklong Residential and Commuter Package Courses

DROP PERIOD	WITHDRAWAL PERIOD	NO WITHDRAWAL PERMITTED
Before the first class meeting	Any part of course is attended (but not entire course)	After residential/commuter portion of course

Late Withdrawal

After the appropriate withdrawal period has ended, students may petition for withdrawal from a course only under extenuating circumstances. The petition should be presented to the associate vice president for the College of Graduate Studies, and must include a letter explaining the extenuating circumstances, requested documentation, and a course withdrawal form signed by the instructor.

COURSE REFUND SCHEDULE

10–16 week face-to-face courses, fully online courses, or blended/hybrid courses with three or fewer face-to-face meetings

FULL TUITION REFUND	75% TUITION REFUND	50% TUITION REFUND	NO TUITION REFUND
Last business day of week two of the course	Last business day of week three of the course	Last business day of week four of the course	After last business day or week four of the course

Blended/hybrid courses with four or more face-to-face meetings or block and intensive courses

FULL TUITION REFUND	75% TUITION REFUND	50% TUITION REFUND	NO TUITION REFUND
Prior to second class meeting	On or after second class meeting but prior to third meeting	On or after third class meeting but prior to fourth meeting	Fourth class meeting or later

Weekend/Weeklong Residential and Commuter Package Courses

Refunds can only be processed up to two business days prior to the start of the course. After that date, no refund (partial or otherwise) will be granted.

Important Refund Information: Withdrawn or dropped courses in any given term that were paid for (all or in part) with federal aid, by a third-party agency via a scholarship or purchase order, or with a tuition waiver, require the following:

- a) Paid by federal financial aid: Federal aid that pays to the student’s account must be earned. Federal regulations require that PSU determine how much of the federal aid has been earned and return all unearned amounts to the lender for withdrawals prior to 60 percent of enrollment period. This may result in a balance owed to PSU. *Note: This*

calculation of unearned aid generally occurs independently from the amount of tuition that is refunded based on the course refund schedule. Exception: Should a 100 percent refund be received for tuition charges, 100 percent of the federal aid will be returned to the lender, and the student will become responsible for paying the initial \$25 non-refundable administration fee that was assessed at the time of registration.

- b) Paid by third-party agency: Course drops or withdrawals require that PSU return any funds received from an outside agency to that agency regardless of whether the student receives a full or partial refund of charges based on the course refund schedule. This may result in a balance owed to PSU.
- c) Paid by tuition waiver: In general, if the student is no longer registered for the course(s) for which the waiver was directly applied, the tuition waivers will be removed from the student’s account. This may result in a balance owed to PSU. However, some types of tuition waivers may have different restrictions. Please contact the Bursar’s Office for additional information.

GRADUATE CAPSTONE

Students may elect to complete a culminating one- to 12-credit supervised project or practicum experience in a work environment, cooperating institution, or agency. Graduate students may participate in a variety of learning experiences arranged in conjunction with their program of study and with the approval of the associate vice president for the College of Graduate Studies and their advisor. Field and university supervisors work with graduate students to determine specific learning outcomes that will result from this experience, as well as procedures to meet those outcomes. Students will construct a learning portfolio to document specific outcomes of this experience and present this portfolio at the end of the term. A student self-evaluation and curriculum vitae detailing accomplishments to date should be included in the portfolio. Students in the Master of Science degree programs will present their research findings and may have other additional requirements.

PSU has limited funding for honoraria for supervisors, and therefore relies on professional partnerships with the community to assist graduate students in this apprenticeship learning model. Typically, students spend 40 hours per credit hour during a capstone experience, depending on the discipline.

GRADUATE INTERNSHIP OR PRACTICUM

PSU’s teacher education programs are renowned in New Hampshire and throughout New England, and PSU’s graduates are actively recruited for teaching positions. Beginning as early as the first year, teacher education candidates have many opportunities to teach and learn in public elementary, middle, and high school settings. This experience culminates in an intensive

internship or practicum for candidates fully employed in the area of certification. The culminating field experience is typically 12 weeks for a single level endorsement (K–8, 5–9, 7–12) and two eight-week experiences (one at the primary level and one at the secondary level) for K–12 certification.

All teacher certification candidates who interact with students in public school settings through course-related field experience are subject to New Hampshire state legislation that requires all persons who regularly come into contact with pupils on a daily basis to undergo a full disclosure criminal records check which may include fingerprinting. The criminal records check is conducted at the site school before the field experience begins. The fee for this processing is the responsibility of the teacher candidate and is paid directly to the school district. Inquiries should be directed to the graduate certification coordinator.

GRADUATE PROGRAM COMPLETION AND DEGREE CONFERRAL

Most PSU graduate students complete a degree program in one to three years; six years is the maximum time to complete a degree. Assuming all undergraduate competencies are met, MBA students can complete their program in just four terms. Courses in the Master of Science in applied meteorology, biology, and environmental science and policy programs are offered along the undergraduate semester schedule. Depending on the student's choice of thesis and non-thesis options, the time to completion can range from one to two years.

There are specific time frames assigned for processing completions and degree conferrals. Diplomas are issued three times per year: May Commencement (second or third Saturday in May), August 31, and December 31. All students who expect to graduate are required to submit a Petition for Degree Conferral along with a \$100 processing fee. Students must submit a completed petition and fee before the corresponding conferral deadline in order to have their program audit completed and degree conferral processed for their anticipated completion date.

Anticipated Degree Conferral Date	Petition and Fee Submitted by Student No Later than
August 31	May 1
December 31	October 1
May Commencement	December 1

Students who do not meet the above deadlines may be eligible to submit a late petition for completion. The processing fee for a late petition is \$150.

Anticipated Degree Conferral Date	Late Petition and Fee Submitted by Student No Later than
August 31	May 31

December 31	October 31
May Commencement	March 1

Educator and specialist certification candidates must also submit a Petition for Certification or Specialist Credential Eligibility form with a \$100 processing fee. Educator and specialist certification candidates can petition for completion at any time, as these certifications and endorsements can be awarded or endorsed outside of the official degree conferral dates listed previously.

Professional certification can also be awarded at any time as long as the candidate already holds a master's degree. Students seeking professional certification along with a master's degree will have their certification endorsed at the same time their master's degree is conferred.

GRADUATE COMMENCEMENT CEREMONY

All graduates are encouraged to participate in the Graduate Commencement ceremony, which is held annually on the second or third Saturday in May. Students who complete degree requirements in August and petition by April 1 have the option of walking in the May ceremony of that same year. After April 1, all students who petition to graduate for the August conferral date will be eligible to participate in the May ceremony of the following year. Students who petition for December will be eligible to participate in the May ceremony of the following year. Please contact the graduate degree auditor with questions regarding the completion of a graduate program. Graduating students can visit plymouth.edu/commencement to access Graduate Commencement ceremony information.

Academic Support and Student Services

ADVISING

Admitted graduate students are assigned an academic advisor with whom they must meet to develop a program of study within the first term after admission. Students are responsible for maintaining contact with their advisor throughout their program, and may obtain advising assistance by mail, e-mail, online chat, phone, or in-person appointments. Students may request to change their program advisor through the College of Graduate Studies. Evening and weekend advising hours are offered on and off campus by appointment. Contact the College of Graduate Studies to schedule an off-campus advising session.

CENTER FOR RURAL PARTNERSHIPS

The Center for Rural Partnerships (CfRP) was established in November 2005 to advance the mission of the University through engaged research and community service. The CRP facilitates the University's instructional, research, and service capacity to benefit rural people and communities in New Hampshire, New England, and the United States. In collaboration with other members of the University and the broader community, the CfRP assists and supports rural policy research, analysis, development, and implementation. In support of its mission, the center is involved in a wide range of activities. The center provides support for faculty, staff, and students in their efforts to serve rural New Hampshire through outreach scholarship.

CENTER FOR THE ENVIRONMENT

The Center for the Environment (CFE) is a collaborative effort between PSU academic departments, government agencies, and regional nonprofit organizations. Established in 2004, the goal of the CFE is to address the science, policies, culture, and economics of the natural environment in northern New England through research, education, and collaboration. The center has a special commitment to the North Country and Lakes Region of New Hampshire and PSU is geographically well situated to serve this role. The center focuses on applied environmental problems and engages local communities and organizations in environmental demonstration projects that integrate the natural and human environments. The work of the center enhances the North Country economy, and fosters regional environmental understanding and literacy.

GRADUATE WRITING ASSISTANT

A free service accessible to all PSU graduate students, the Graduate Writing Assistant (GWA) is available to work with students on papers, theses, and other writing projects. Contact the GWA for editorial assistance with the presentation of ideas, coherence of argument, clarity of composition, precision of APA

formatting, or any other area of writing. For more information, visit the GWA Web site at plymouth.edu/graduate/gwa or call (603) 535-2636.

HOUSING

There are a variety of housing options available to graduate students, including on- and off-campus housing. On-campus housing is assigned through Residential Life. Off-campus housing is operated by individual landlords or property management companies. Housing is limited and subject to availability. For information and assistance, contact the Department of Residential Life at plymouth.edu/reslife or (603) 535-2320.

MARK SYLVESTRE PLANETARIUM

Located in the Boyd Science Center, the Mark Sylvestre Planetarium is a 31-seat facility with handicap access. Programs can be conducted using the Digitalium Alpha LCD full sky projector or the Starlab Sky Projector, and an LCD projector with VHS, DVD, and computer (including Internet) inputs. Programs in astronomy designed for the general public, elementary and secondary students, college students, scout groups, and others are regularly given. The planetarium has been used for art classes, opera classes, summer programs for grade school children, student presentations, and a variety of other programs. In addition to the Mark Sylvestre Planetarium, there is also a portable planetarium that is used to give astronomy presentations at schools throughout New England.

MYPLYMOUTH

The myPlymouth portal is a highly integrated environment and gateway to nearly all of PSU's online services. All active, registered, or admitted graduate students have access to myPlymouth, which contains academic, personal, administrative, and recreational information about PSU. Self Service (under the Services tab) includes academic information, such as unofficial transcripts, grades, online registration access, and financial information from the Bursar's and Financial Aid Offices.

With a user name and password, myPlymouth is accessible from any computer with Internet access. To obtain a user name and password, go to <http://my.plymouth.edu> and follow the instructions. Students must regularly access their PSU e-mail account to receive important graduate-specific information from the administration and faculty.

PARKING PERMITS

All students must obtain a valid parking permit to park on campus. To obtain a parking permit visit the IPARQ Web site at thepermitstore.com and enter Plymouth State University as the parking destination.

PASS

The Plymouth Academic Support Services (PASS) Office provides tutoring services for undergraduate and graduate students, and services and accommodations for all students with documented disabilities. In addition to these services, the PASS Office hires and trains more than 60 undergraduate and graduate tutors, providing students with professional experience. The PASS Office is located in Lamson Library and Learning Commons, in a student-friendly learning environment. For additional information about graduate student services and tutoring opportunities, visit plymouth.edu/pass or call (603) 535-2270.

PLYMOUTH WRITING PROJECT

The mission of the Plymouth Writing Project (PWP) is to improve the teaching of writing in New Hampshire's schools. Through its professional development model, the PWP recognizes the primary importance of developing and extending teacher knowledge, expertise, and leadership.

The PWP believes that access to high-quality educational experiences is a basic right of all learners and a cornerstone of equity. Through building an extensive network of teacher leaders, the PWP seeks to promote exemplary instruction of writing in every classroom in the state.

These teachers, together with University instructors, collaborate to provide staff development programs in New Hampshire schools. Plymouth Writing Project programs include summer institutes for teachers, graduate-level courses, workshops, classroom and program consultations, and reflective practice, inquiry, study, and writing groups.

Students may choose to incorporate the PWP coursework into a Self-Designed MEd degree program. Visit plymouth.edu/pwp for additional information.

STATISTICAL CONSULTING CENTER

The Statistical Consulting Center, located in the mathematics department, offers statistical consulting on the design and analysis of research projects to the faculty and students of PSU and its partners. This professional service is available at any stage of research including planning, proposal writing, design, analysis, or the final written presentation of the results. This is not a tutoring service, but rather a resource for faculty and students engaged in research.

STUDENT HANDBOOK

The Division of Student Affairs maintains the student handbook. The handbook is available online at plymouth.edu/stulife/handbook and contains information regarding student rights, policies and expectations, the judicial system, services, and the annual security report.

THE WRITING CENTER

The Writing Center offers writing workshops, support for thesis writing, and accommodating hours for graduate students. Versatile consultants, as well as writing guides, model papers, and lists of useful Web sites on writing, assist students in their studies. After visiting the center to discuss writing needs, consultants may work with students online. The Writing Center is located in Lamson Library and Learning Commons, just beyond the PASS Office. For additional information, visit plymouth.edu/wrc or call (603) 535-2831.

UNIVERSITY IDENTIFICATION CARDS

A valid PSU picture ID card is needed to access services throughout the campus. The magnetic strip on the back of the card is used in the library, PE Center, and other campus locations where validation of student status is necessary. It also enables the use of a cash-to-card machine to maintain a monetary balance on the card. This allows for purchases in vending machines, the snack bar, copier machines, and the bookstore. The fee for an ID card is \$15. The cost to replace a damaged card is \$5 under the condition that the damaged card is turned in when a new card is issued. The ID Center is located on the second floor of the Hartman Union Building (HUB). Once a card is obtained, it is automatically activated each semester the holder is enrolled in courses. Visit plymouth.edu/hub/printshop for additional information.

GRADUATE STUDY OPPORTUNITIES FOR UNDERGRADUATE STUDENTS

Plymouth State University seniors with a cumulative grade point average of 3.0 or better may take up to six graduate credits with prior permission. Proper selection of the graduate courses may allow for double counting the graduate credits as undergraduate credits.

The College of Graduate Studies offers undergraduate students the opportunity to earn a master's degree by successfully completing one year of graduate study after obtaining a baccalaureate degree. Currently three degree options exist:

MASTER OF ARTS IN TEACHING (ART EDUCATION OR SCIENCE EDUCATION)

- Students who hold a baccalaureate degree with a GPA of 3.0 or higher may apply to the MAT program.
- Art Education: For PSU BFA students who fulfilled 12 credits of art education within their BFA degree. Successful graduates will be certified as K–12 Art Educators by the state of New Hampshire.
- Science Education: For PSU graduates with baccalaureate degrees in biology and general science or who are interested in becoming a science teacher. Successful graduates will be certified by the state of New Hampshire.

MASTER OF BUSINESS ADMINISTRATION (GENERAL MANAGEMENT)

- Students who hold a baccalaureate degree in business with a GPA of 2.5 or higher may apply to the MBA program.
- General Management: For full-time graduate students, the 10-course program can be completed in as few as 12 months.
- Graduate students may also pursue a certificate in Investment and Finance, Strategic Marketing Management, Organizational Communication, The Human Side of Enterprise, Small Business and Entrepreneurship, Health Care Administration, or International Business.

MASTER OF EDUCATION (SELF-DESIGNED)

- Students who hold a baccalaureate degree with a GPA of 3.0 or higher may apply to the MEd program.
- The 33-credit requirement may be completed within one year.
- Students may pursue a wide range of disciplines within the self-designed program.
- Students who have taken advantage of the six graduate credits opportunity in their senior year will need only 27 additional credits to obtain their master's degree.

General Financial Information

2010–2011 TUITION AND FEES

Tuition is subject to change by the University System of New Hampshire. The information listed below is the current per graduate-credit rate of tuition at the time of publication. Visit plymouth.edu/graduate for a list of current graduate tuition rates and fees.

Course Number	In-State	Out-of-State
5000–6999	\$493	\$539
7000–7999	\$519	\$568
8000–8999	\$574	\$628

COURSE REGISTRATION AND PAYMENT

There are a variety of options available for students to register for a graduate course. All registrations require full payment at the time of registration. Students are to register and pay for all courses, including independent studies, individual enrollments, practica, theses or master’s research projects, and internships, prior to the beginning of studies. Students who have a financial hold on their account are not permitted to register for courses.

Students who have not been admitted into a graduate degree program may take up to 12 graduate credits. Once students have reached the 12-credit maximum, additional coursework can not be pursued until admission has been granted.

Term	Registration Begins (approximately)
Summer	April 15
Fall	July 15
Winter	September 15
Spring	January 15

Registrations can be mailed or faxed, and students are always welcome to register in person. Students who have an active myPlymouth account may register for courses online through the myPlymouth portal. Online registration is available during specific time frames. Registrations outside of these time frames must be submitted to the College of Graduate Studies for processing.

Term	Online Registration Availability (approximately)
Summer	April 15–June 30
Fall	July 15–August 31
Winter	September 15–November 30
Spring	January 15–February 28 (29)

Methods of Payment

As of May 1, 2009, all paper-based payments are converted in the Bursar’s Office to an electronic payment via Plymouth State’s third-party processor. This includes paper checks and any credit card information submitted on a registration form or called into a PSU office. This change may result in payments being withdrawn from bank or credit card accounts as soon as 24 hours after they are received. Payments must be made or secured at the time of registration.

OUT-OF-POCKET PAYMENTS:

Credit Card: Payments may be made using American Express, Discover, MasterCard, or Visa.

Check: Payment may be made with a personal check, cashier’s check, or money order. A student ID number must be noted on the check or money order and attached to the registration form. Checks should be made payable to Plymouth State University.

Online Payments: Students can pay their bill online via e-check or credit card by clicking the “Pay Now” button located on their online bill in the myPlymouth portal.

GUARANTEED ANTICIPATED PAYMENTS:

Financial Aid: Students must be matriculated (degree-seeking) and taking at least three credits of degree-required coursework to be eligible for financial aid. For more information, contact the Financial Aid Office at (603) 535-2338, (877) 846-5755, or visit plymouth.edu/finaid.

External (non-PSU) Scholarships and Awards: If students have received an external scholarship or award, a copy of the award letter must be submitted to the Bursar’s Office. The award letter must include the student ID number, the award amount to be paid and for which term, and the awarding organization’s name and address. In order for the award to be considered as an authorized payment on the tuition bill account, the award must NOT be contingent upon grades, grade point average, or any other criteria prior to it being paid to PSU. If contingencies on the award exist, it cannot count as an anticipated payment toward the student’s bill and the student will need to pay this award amount through some other means. If, later on, the student meets the required criteria and the award payment comes in, the student can be reimbursed for the overpayment.

Purchase Orders and Government Authorizations: If tuition is to be paid by an employer, a government agency, or any such third-party company, the student must submit a letter of authorization or a purchase order to the Bursar’s Office from their third-party payer. In order for this type of payment agreement to be considered an authorized payment on the tuition bill account, payment must NOT be contingent upon

grades, grade point average, or any other criteria. Students must make sure their third-party authorization or purchase order (PO) includes their name, student ID number, the maximum billing amount, and the third-party company's name and address. If students fail to include any of this information, the authorization or PO will not be accepted and they will be required to pay their bill out-of-pocket. If all the necessary information is provided, the Bursar's Office will invoice the third-party company for the authorized amount. Please note that if the company or agency has a policy to reimburse students for their course(s), students will be responsible for making the tuition payment themselves.

Internal Scholarships and Awards: If students receive internal assistance (e.g., graduate assistantship, staff tuition waiver, mentor teacher waiver) the award letter or waiver form must be submitted to the College of Graduate Studies at the time of registration.

NOTE: Federal financial aid regulations require that all resources that help fund educational expenses be reported. Receipt of educational resources, including those listed above and others such as GI Bill benefits, may impact financial aid award amounts.

Visit plymouth.edu/bursar for additional information about payment options.

Graduate Student Overdue Account and Collection Policy

Tuition and fees for graduate courses are to be paid at the time of course registration. Miscellaneous charges (e.g., library overdue fees, parking citation fees) are to be paid within 30 days from the date on which they were billed. If they are not paid in 30 days, a financial hold is placed on the account and the student will not be allowed to register for courses until the amount has been paid in full. This hold also prohibits students from receiving official transcripts, certification awards and statements, and degree conferral.

A monthly e-mail message is sent to students' PSU e-mail account with a reminder to check their myPlymouth account for new charges. Financial balances that are outstanding for more than 30 days will be assessed a 1.5 percent interest late fee until they are paid in full. Accounts that have outstanding balances from a previous term will be turned over for collection.

Statement of Financial Responsibility

By enrolling in classes at PSU, students accept full responsibility for tuition bill accounts and agree to pay all charges incurred as a result of their student status. Students also acknowledge that late fees will be assessed monthly for overdue balances and collection costs may be added to a student's account if the services of a collection agency are employed.

Students must assume full responsibility for their tuition bill account and also accept the responsibility to review their plymouth.edu e-mail account, as all billing notifications are sent to the plymouth.edu e-mail account.

RESIDENCY STATUS

For the purpose of assessing tuition and fees, each student shall be classified as a New Hampshire resident or a Non-New Hampshire resident. A person shall be classified as a New Hampshire resident if he or she has resided in the state of New Hampshire for purposes other than attending an educational institution for 12 months immediately preceding the student's entry or re-entry. Physical presence for this entire 12-month period need not be required as long as the conduct of the individual, taken in total, manifests an intention to make New Hampshire the permanent dwelling place. Reside, residency, or resident shall refer to the domicile (i.e., a person's true, fixed, and permanent home, or place of habitation) where he or she intends to remain permanently.

Proof of residency will be decided based on all facts submitted with qualitative rather than quantitative emphasis. The burden of proof rests on the student seeking classification as a New Hampshire resident. Any student who previously attended PSU, paid out-of-state tuition, and now claims New Hampshire residency should contact the Office of the Registrar to apply for resident status prior to registering for any coursework. Misrepresentation in, or omission from, any evidence submitted with respect to any fact, which if correctly or completely stated would be grounds to deny classification as a New Hampshire resident, shall be cause for exclusion or expulsion from, or other disciplinary action by, PSU.

Residency decisions made by the Office of the Registrar are based on information furnished on the student's application and other supporting data. PSU reserves the right to make the final decision concerning residency status for tuition purposes.

In-State Residency

To qualify for in-state status, students must have been legally domiciled in New Hampshire continuously for a period of at least 12 months prior to registering for the term for which in-state status is claimed.

Out-of-State Residency

Students admitted from states other than New Hampshire or from foreign countries are considered non-resident throughout their attendance at PSU, unless they have acquired a bona fide domicile in New Hampshire. The burden of proof in all cases concerning residency is on the applicant.

Establishing or Changing Residency

Graduate student residency status is determined at the time of admission to PSU and may be changed only by applying for reclassification. Residency change information is available at plymouth.edu/registrar/residency. If the student is successful in his or her application for reclassification, the change will be effective at the beginning of the next term. Reclassifications do not occur mid-term.

FINANCIAL AID

Financial aid in the form of loans is intended to assist qualified students who are unable to meet their entire educational expenses from their own resources. Specific steps to apply for federal student loans are available on the PSU Web site at plymouth.edu/finaid.

Students must be degree-seeking to access federal loan programs. Non-degree certificate program students may access non-federal loan programs.

As of the 2009–10 academic year, Plymouth State is a participant in the Federal Direct Loan Program (DL) and no longer processes loans through the Federal Family Education Loan (FFELP) Program.

Federal Direct Loans

Graduate students may be eligible for Title IV subsidized and unsubsidized Federal Direct Loan funds. The annual eligibility for a graduate student is based on the average Cost of Attendance (COA) for that year. The COA is based on the number of credits and courses taken as well as books, travel, and living allowances. The maximum annual Federal Direct Subsidized and Unsubsidized Loan amount available for a graduate student is \$20,500 (effective July 1, 2007). No more than \$8,500 of this amount may be in subsidized Federal loans. The aggregate maximum Federal Direct (subsidized and unsubsidized) is \$138,500.

A **subsidized** Federal Direct Loan is awarded on the basis of financial need (total cost minus estimated family contribution minus other financial aid). No interest is charged while students are in school at least half time, during the grace period, and during deferment periods.

An **unsubsidized** Federal Direct Loan is not awarded on the basis of need. Students will be charged interest from the time the loan is disbursed until it is paid in full. If interest accrues (accumulate) while attending school, or during other periods of nonpayment, it will be capitalized. This means the interest will be added to the principal amount of the loan, and additional interest will be based on that higher amount.

Graduate loan proceeds are disbursed by the Bursar's Office at the beginning of each enrollment period after confirmation of course registration and number of credits.

Federal Direct PLUS Loans

Graduate students may also be eligible to borrow under the Federal Direct PLUS Loan program up to PSU's COA minus other estimated financial assistance. A request form will need to be completed to request this PLUS Loan. The request form and additional information about the process are located on PSU's Graduate Financial Aid Web page at plymouth.edu/finaid/grad.

All Direct PLUS applicants are required to complete the FAFSA at fafsa.ed.gov and must have applied for the maximum annual Federal Direct Loan eligibility before applying for a graduate Federal Direct PLUS Loan.

There is a loan fee of 4 percent of the principal amount charged for each Direct PLUS Loan. The total fee is reduced to 2.5 percent due to an up-front interest rebate equal to 1.5 percent of the loan amount. To retain this up-front rebate, when graduate students start to repay the loan, the first 12 consecutive payments must be made on time. This fee helps reduce the cost of making these low-interest loans. The fee and rebate will be applied before students receive any loan money.

Repayment on the PLUS Loan begins 60 days after the loan is fully disbursed for an academic year. To request an in-school deferment, after the initial PLUS Loan disbursement, please contact Direct Loan Borrower Services at (800) 848-0947. Deferment needs to be requested on an annual basis. An in-school deferment will delay payments on the PLUS Loan until six months after a student ceases to be enrolled at least half-time. **Interest will continue to accrue on this loan during the deferment period.** Therefore, it is recommended that interest payments are made during this deferment period if at all possible.

Financial aid eligibility begins the enrollment period immediately following acceptance into the College of Graduate Studies.

Students applying for federal loans must visit the PSU Financial Aid Web site at plymouth.edu/finaid and click on Graduate Financial Aid to complete:

1. A Free Application for Federal Student Aid (FAFSA) annually at fafsa.ed.gov. Students will need to file their FAFSA at least one month prior to the term for which financial aid is needed. **Students will also need to be admitted to a degree or eligible certificate program before a financial aid application will be processed.**

2. A Graduate Student Enrollment Status form annually to provide the number of credits being taken during each enrollment period. If this enrollment information changes during the academic year, **written communications of these changes must be submitted to the Financial Aid Team** so the student's Federal Direct Loan eligibility can be reviewed and adjusted, if necessary.

PSU will identify Federal Direct Loan eligibility upon receipt of the FAFSA (received from the federal processor) and the Graduate Student Enrollment Status form.

Once Federal Direct Loan eligibility is identified, two additional steps will be required:

1. Entrance Loan Counseling session as required by the Department of Education. This requirement is only needed once; therefore, if the form has been previously completed, an additional one is not necessary.
2. Master Promissory Note (MPN). Since PSU has changed to Federal Direct, a new MPN will be needed before Federal Direct Loan funds can be processed.

Once term charges are billed by the Bursar, loan proceeds will be credited to the student's account with any available refunds disbursed by the Bursar.

Generally, students who receive financial aid may be eligible for assistance from the summer term through the spring term within an academic year. The federal government's academic year for aid eligibility begins July 1 and ends June 30.

Course Begins:	Suggested FAFSA Filing Date:
Summer (July or August)	June 1
Fall (September through November)	August 1
Winter (December through February)	November 1
Spring (March through June)	February 1

The Financial Aid Office determines eligibility annually based upon cost of attendance for that year (July 1 through June 30). The cost of attendance is determined, in part, by the number of credits applicants have projected for each graduate term and includes tuition, fees, books, supplies, and living expenses for periods of enrollment. Stafford loan eligibility may increase or decrease depending on any credit load changes. In an attempt to avoid potential reductions, please provide conservative projections for credits and courses per graduate term and notify the Financial Aid Office of any enrollment changes.

Other Financial Aid Recipient Responsibilities

- **Notification of Withdrawal:** Students must inform the Financial Aid Office, their instructors, and their graduate

program advisors of any course or program withdrawals or changes.

- **Loan Disbursements:** Loans are sent to the lender on hold and are disbursed by graduate term. The release of a loan for disbursement will be the latter of the official start of the semester or the actual start date of a three-credit course. Loan disbursement is contingent upon registration, having the proper number of credits, and contacting the graduate program advisor at the beginning of each term. To avoid holdups with loan disbursements, students must notify the Financial Aid Office of any enrollment changes (e.g., not enrolling during a term for which aid was awarded) after completing the Graduate Student Enrollment Status form.

Standards of Satisfactory Academic Progress (SAP) for Graduate and Post-Graduate Degree Seeking Students

The Education Amendments of 1976 require that institutions limit federal financial assistance to those students who, according to institutional standards, are in good standing and making satisfactory progress (qualitative). At PSU, students must be in good academic standing and be making satisfactory academic progress in order to be eligible for financial assistance.

All graduate degree candidates must maintain academic standing consistent with the College of Graduate Studies program requirements of a 3.0 cumulative grade point average required for graduation. Continuing students' quantitative progress (earned credits) will be reviewed once per year prior to the award or disbursement of financial aid for the next academic year. Readmitted students' quantitative progress will be reviewed at the point of re-entry.

Satisfactory Academic Progress (SAP) for graduate students **requires that graduate students progress by earning at least 75 percent of the credits for which they enroll each year (between July 1 and June 30)**, and that they earn these credits toward their degree or certification program. The number of enrolled credits also includes dropped courses.

Students who are not successfully completing courses at the minimum levels are not considered to be making satisfactory academic progress, and will not receive further financial aid until satisfactory progress status is achieved. Students will be informed by a letter from the Financial Aid Office regarding non-eligibility status for financial aid. If the ineligible student does not appeal, reinstatement for financial aid consideration will occur when the student attains the necessary credits.

Special Note: Due to timing, some students may be identified as NOT making satisfactory academic progress as a result of grades being unavailable by the start of a new term. Students may submit their grades directly to the Financial Aid Team; however,

until these grades are received and SAP is reviewed, federal aid cannot be processed.

If a student feels there have been mitigating circumstances that have prevented satisfactory progress, a letter of appeal can be presented to the financial aid committee for review. At the time of review, the student will either be allowed to continue federal financial aid eligibility (normally based on mitigating circumstances) or not be allowed to continue based on weak academic performance. If the student's appeal is denied, the associate director of financial aid will explain how eligibility may be restored. Failure to regain satisfactory progress status will result in the loss of all federal, state, and University aid, including grants, scholarships, and loans.

Return of Federal Title IV Financial Aid

If student receives federal financial aid and withdraws within 60 percent of the enrollment period, a portion of the awarded federal aid must be returned. The amount to be returned is calculated by the Bursar's Office and Financial Aid Team, normally within 10 days of the withdrawal date determination. The calculation may result in the student owing a balance to PSU or the Federal Direct Loan Program or both. Sample "Return of Title IV Fund" worksheets are available at the Financial Aid Office.

Other Assistance:

Many students in the Master of Science degree programs have the option of receiving grant funding to support their studies. The student's program advisor will provide the details of grant funding for stipends and tuition payment.

SCHOLARSHIPS

The College of Graduate Studies presents annually a limited number of graduate scholarships. Applicants should complete a Graduate Scholarship Application, available at plymouth.edu/graduate/academics/forms.

Applications for graduate scholarships should be returned to the College of Graduate Studies by April 15 for the upcoming academic year. Each recipient is asked to confirm acceptance of an award in writing. Awards are made as soon as possible after June 1. It is beneficial to submit applications early, as awards are not judged on a need-only basis.

Dennise Maslakowski Graduate Education Scholarship Fund

The purpose of the Dennise Maslakowski Graduate Education Scholarship Fund is to honor Dr. Maslakowski's commitment to teaching and to the encouragement and development of talented and motivated teachers by providing a scholarship to a deserving New Hampshire resident enrolled in a graduate program in education. The recipient should be striving to reach his or her full

potential as a teacher, and should demonstrate exceptional character in pursuing this goal. The recipient will be selected by faculty and staff of PSU's College of Graduate Studies.

GRADUATE ASSISTANTSHIPS

Graduate assistants are an important part of Plymouth State's collaborative learning community. They work alongside faculty, staff, and students to help achieve the University's goals, while gaining valuable experience as assistants, researchers, and teachers.

Graduate assistantships are available on a limited basis to highly qualified graduate students who have been fully accepted into a graduate program at Plymouth State. Applications for assistantships should be submitted to the College of Graduate Studies by April 15 for the upcoming year. The application is available online at plymouth.edu/graduate/academics/forms.

Students admitted to the advanced athletic training programs may be eligible for a limited number of athletic training graduate assistantships. Advanced Athletic Training students should review plymouth.edu/graduate/admissions/financial-aid/assistantships/athletic-training for athletic training assistantship and application information as the application and deadline are different than the general assistantship application.

The Master of Science programs award a limited number of research assistantships that are grant funded. Students who are awarded a research grant assist faculty members with research that often informs and complements student thesis and professional work. Students in the science programs should consult with their program advisor to learn about research assistantships.

Admission to the College of Graduate Studies

The admissions review board carefully considers applicants' academic record, essay, recommendation letters, scores on appropriate standardized tests, and other factors that reflect students' academic potential and motivation, as well as their preparation for the specific program to which the candidates have applied.

In addition to having a baccalaureate degree from an accredited four-year institution, graduate applicants must also meet appropriate academic department criteria to be eligible for admission. Students should consult with program coordinators or advisors about specific admissions requirements.

The College of Graduate Studies considers applications on a rolling admission basis. Students may apply at any time of the year and may take up to 12 graduate credits before being officially admitted into a program.

ADMISSION STATUS

Students who have applied to the program may be fully admitted pending completion of necessary requirements, or denied admission. Students must meet all requirements associated with their offer of admission in order to be fully endorsed in the specific program to which they are applying. Successful applicants will receive a letter detailing the status of their admittance.

APPLICATION PROCESS

Completed applications and a non-refundable application fee must be submitted to the College of Graduate Studies. Applicants are strongly encouraged to apply online. A completed application includes the following:

- A completed, signed, and dated application for admission. Note: EdD candidates must submit the online application.
- Official transcripts verifying that a baccalaureate degree was completed. In addition, include transcripts from any other college(s) or universities attended. All transcripts must be sent directly from the institutions to the College of Graduate Studies.
- Official score report from the Miller Analogies Test (MEd, MAT in Art Education candidates), or the Graduate Record Examination (MS, MAT in Science Education, and athletic training candidates). Educator certification candidates who do not already hold a master's degree or are not pursuing a master's degree at PSU must submit passing scores for the Praxis I exam. Applicants who already hold a graduate-level degree do not need to submit test scores. Admissions tests are not required for MBA, CAGS, and EdD applicants.

- A statement of interests and intent. CAGS and EdD applicants must also submit a professional writing sample.
- A professional résumé or curriculum vitae
- Three recommendations from past or current supervisors, professors, or colleagues. All recommendations not completed online should be mailed directly to the College of Graduate Studies by the individuals providing the recommendation.
- Complete and have notarized the New Hampshire Residency Confirmation Form (Non-NH residents do not need to complete this form)
- A nonrefundable application fee: CAGS and EdD applicants, \$100; master's and certification applicants, \$75
- Enclosed a photocopy of alien registration card, if applicable
- Certain degrees have additional admissions requirements or program prerequisites. Contact the program coordinator for further information.
- Counselor education, CAGS, and EdD candidates must arrange an admissions interview with the respective program coordinator. Call (603) 535-2636 to schedule an interview.

Additional Requirements for International Students

International students who intend to study in the United States and who do not possess a permanent visa with an Alien Registration number must submit the following documents:

- An Affidavit of Financial Support form. Applicants must complete an I-134 Affidavit of Support form available on the U.S. Citizenship and Immigration services Web site at uscis.gov. Plymouth State University will issue a Certificate of Eligibility (I-20) based upon documented evidence that funds exist to cover all student expenses for one academic year. Regulations limit the employment of non-immigrant international students and their families. Employment cannot be considered as a means of support while enrolled at PSU.
- An official report of TOEFL (Test of English as a Foreign Language) scores. International students must demonstrate proficiency in English through submission of a TOEFL score. This test is required of all applicants whose native language is not English.
- Official, notarized transcripts, translated into English and evaluated for institutional equivalency, verifying that a baccalaureate, master's degree, or both were completed.
- A copy of a current passport.

All applications for admission become part of PSU's permanent records and will not be returned. Access to this material is limited under the Family Educational Rights and Privacy Act (FERPA) of 1974. Materials received as part of the application process will not be duplicated for personal use by the applicant nor forwarded to a third party. Please note: PSU is not obligated to accept more than 12 credits taken at PSU prior to admittance into a degree program. Courses older than six years at the time of admittance may not be counted toward a degree.

Degree Programs

MASTER OF ARTS IN TEACHING (MAT)

The MAT curriculum is designed to promote excellence in teaching, research, scholarship, and dedication to service. Underlying this excellence is the set of professional standards and competencies that form the foundation for continued growth and development in all areas of education. The program is designed around a professional core of education and content courses that provide a foundation and framework in learning theory, philosophy, pedagogy, and research while integrating content. The capstone experience provides the opportunity to demonstrate the translation of theory to practice in a supervised educational setting. Students are expected to develop competencies in critical thinking, collaboration, diversity, leadership, research, and applied use of technology.

(Further information pertaining to certification can be found on page 60)

MAT in Art Education (K–12 Certification)

Program Coordinator: Cynthia Vascak, PhD
(603) 535-3001, e-mail: cynthiav@plymouth.edu

The MAT in Art Education has two concentrations. The fifth-year concentration is an extension of the PSU BFA degree. The standard certification concentration is for adult students who already possess a baccalaureate degree in fine arts, visual arts, studio art, or graphic design, and want to become certified as an art educator.

The fifth-year MAT consists of 33 graduate credits. The capstone experience integrates coursework, prior experience, and research. The 33 credits are based on students fulfilling nine credits of art education within their BFA degree: Foundations of Art Education, Methods and Materials in Art Education, Instructional Planning and Pedagogy in Arts Education, and Curriculum Assessment in Art. If not completed, additional coursework in art education will be required to fulfill these equivalencies.

The standard MAT certification concentration requires the 33-credit core. Students in this concentration are required to take the equivalent of four professional art education courses: Foundations of Art Education, Methods and Materials in Art Education, Instructional Planning and Pedagogy in Arts Education, and Curriculum and Assessment in Art Education. Individual cases will be reviewed to determine studio and art history preparation relative to certification competencies.

Additional coursework may be required and will be determined on an individual basis.

Program Objectives

The MAT in Art Education addresses the following NCATE art education competencies, which ensure that as a result of successfully completing the professional program in art education, students will:

- acquire knowledge, understanding, and appreciation of the visual arts in diverse contemporary and past cultures with an emphasis on the relationship of the visual arts to the culture in which it was produced and its influence on subsequent cultures;
- have knowledge of and competence to teach a variety of studio art forms including drawing, painting, printmaking, ceramics, sculpture, and crafts;
- develop a portfolio of personal art work and exhibit selected art works from that portfolio in accordance with professional artistic and technical standards;
- complete a supervised observation and internship with pupils of both elementary and secondary levels;
- have a knowledge of comprehensive programs of visual arts education; procedures for organizing, promoting, and managing a comprehensive visual arts education program; and the selection and organization of visual arts learning experiences and curriculum development in visual arts education;
- have a knowledge of diverse technical and skill-related aspects of visual arts education including diverse mediums and the related techniques for working with them; the elements and principles of the visual arts; display and exhibition design; tool appropriateness, function, and use; and knowledge of visual arts vocabulary;
- develop an appreciation of the other arts including dance, film, music, literature, theatre, and practical arts;
- have awareness, comprehension, and ability to describe, analyze, interpret, and evaluate works of visual art;
- have knowledge and understanding of the technical and safety aspects of methods and materials used in visual arts instruction.

These objectives meet all of the New Hampshire state-mandated competencies in art education that address dispositions, pedagogy, curriculum and assessment, and art content.

Admission Requirements

Qualified candidates must possess a baccalaureate degree with a 3.0 or higher grade point average; have applied and been accepted to the College of Graduate Studies; be subjected to a portfolio review by the art education program coordinator; and have achieved passing scores in the Praxis I exam (only if the student anticipates that certification will need to be awarded prior to being conferred the MAT in Art Education).

Program of Study

REQUIRED COURSES CREDITS

Master's Core Component

ED 5000	Social Behavior in a Diverse Society	3
OR		
ED 5005	Social Mythology across Cultures	3
ED 5010	Philosophy, Ethics, and Education	3
ED 5180	Collaborative Action Research	3
OR		
ED 5030	Research Design	3

Learning Theory Component

ED 5060	Theories of Learning and Cognitive Development	3
ED 5570	Classroom Interventions and Special Education Strategies	3

Content Area Component

(Choose 9 credits from the following)

AR 5560	ST: Arts in Education Summer Institute	3
AR 5560	Studio Topics in Art	3
AR 5300	The Arts in Society	3
AR 5910	Independent Study: Studio	1–3
IN 5560	Special Topics in Integrated Arts	1–4
IN 5970	Integrating the Arts	3
AE 5560	Special Topics in Art Education	1–3

Professional Competencies (if not previously met)

AE 5050	Elementary Methods and Materials in Art Education	3
AE 5060	Pedagogy and Planning, Secondary Level Art Education	3
AE 5700	Curriculum Development and Assessment in the Arts	3
OR		
AR 5560	ST: Curriculum and Assessment in Art Education	3

Internship

AE 5410	Art Education Internship	9
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Minimum Total for MAT in Art Education 33
(with K–12 Art Education certification)

MAT in Science Education

Program Coordinator: Warren Tomkiewicz, EdD
(603) 535-2573, e-mail: warrent@plymouth.edu

The MAT in Science Education degree program enhances science content knowledge and further develops the scientific process and inquiry skills of middle and high school science teachers. The program provides the opportunity for a beginning teacher to

gain the knowledge and skills necessary to make informed decisions about the development, implementation, and assessment of meaningful science programs in school districts. These efforts will ensure that science teachers will develop into effective classroom teachers and be prepared according to the National Science Education Standards and the National Science Teachers Association Standards for Science Teacher Preparation. This program is intended for individuals holding a degree in a science field, but not yet certified, or for individuals making a career change from a science-related field.

The MAT in Science Education is designed to promote science learning for teachers by doing science through the use of both innovative teaching methods in the classroom, laboratory, and field, and authentic assessment strategies that are applicable to their own classrooms. The program is based on the research, goals, vision, and best practices derived from the science education community.

Program Objectives

The general objectives of the MAT in Science Education program are to:

- increase the science knowledge and skills of teachers, including the use of technology, through study in biology, chemistry, meteorology, biotechnology, Earth systems, or the physical sciences;
- introduce and update the student's knowledge about current issues and best practices in science teaching, learning, and assessment in classroom and laboratory settings based on national and local school data;
- introduce and develop the student's understanding and application of national and state science education standards to classroom science teaching and learning;
- provide formal and informal educational experiences for the student with middle and high school students;
- provide a pathway for students to obtain certification as a science teacher.

Program of Study

REQUIRED COURSES	CREDITS	
ED 5570	Classroom Intervention and Special Education Strategies	3
ED 5060	Theories of Learning and Cognitive Development	3
ED 5960	Internship in Teacher Education*	9
NS 5700	Science Teaching in the Middle and High School	3
NS 5800	Seminar: Current Issues in Science Education	3
NS 5600	Field Experience in Science Education**	3

Three Individualized Science Content Courses*** 12

Total for MAT in Science Education 36

- * Supervised internship in a secondary school setting.
- ** A supervised placement with a science or environmental agency dealing with student groups. Examples include Squam Lakes Association, Squam Lakes Natural Science Center, NH Department of Fish and Game, NH Audubon Society, Mindflight Summer Enrichment Program, NH Department of Environmental Services, or PSU Meteorology and Planetarium programs.
- *** Satisfied by successfully completing courses or institutes in biology, chemistry, environmental sciences, biotechnology, Earth sciences systems, or physical sciences.

MASTER OF BUSINESS ADMINISTRATION

General Management

Program Coordinators: Trent Boggess, PhD
(603) 535-2414, e-mail: trentb@plymouth.edu

Craig Zamzow, MBA, CSBC,
(603) 535-2921, e-mail: czamzow@plymouth.edu

Program Objectives

Plymouth State University offers MBA program sequences for students who hold a baccalaureate degree and would like to gain an in-depth understanding of business concepts from different areas of the business world. The MBA program is a stepping stone to higher levels of personal and intellectual growth. Building on a firm base of business knowledge, the program extends and refines a student's business proficiency through a series of theoretical and substantive courses. Working with faculty members who have real-world experience in business, industry, and government, students can tailor their program by selecting courses from a wide variety of business and business-related electives.

The MBA program offers custom-designed course sequences to meet career objectives. Degree candidates also have the opportunity to participate in hands-on learning experiences such as those offered by the award-winning Small Business Institute®, a partnership between the University and local businesses. The program is accredited by NEASC (New England Association of Schools and Colleges) and ACBSP (Association of Collegiate Business Schools and Programs). Eight functional courses (24 credits) form the core of the MBA program, focusing on a common body of business knowledge required of all MBA students.

The MBA program has been in existence for more than 35 years, and is the longest running evening program in the state. The program is designed to be affordable, convenient, and flexible. Courses are offered at both on- and off-campus locations in Plymouth, Concord, Keene, Lebanon, Waterville Valley, and online. Program requirements (30 credits or 10

courses) can be completed in as few as 12 months. A rolling admissions system allows candidates to start their program during any term.

Seven professional certificates can be pursued independently or in addition to the MBA degree:

- Health Care Administration
- International Business
- Investment and Finance
- Organizational Communication
- Small Business and Entrepreneurship
- Strategic Marketing Management
- The Human Side of Enterprise

Admissions Requirements

A baccalaureate degree with a 2.5 or higher grade point average in the undergraduate academic major, strong recommendations, a well-written Statement of Interests and Intent, and a résumé are required for admittance. When admission documents have been received, the application is then screened by the Admissions Review Board. All applicants are informed in writing of their admission status. Full admittance may be granted to students meeting all admissions criteria.

Common Professional Component (CPC)

Eleven CPC competencies are required for admittance into the MBA degree program: accounting, business ethics, business finance, business policies, economics, global dimensions, information systems, legal environment, management, marketing, and quantitative/statistics.

Common Professional Components may be satisfied using coursework, work experience, non-credit workshops, College Level Examination Program (CLEP) or DANTES tests, or a departmental competency exam. There is a fee for each competency examination, ranging from \$50 to \$75. Any competencies not satisfied are listed in the admittance letter and result in a conditional or provisional admittance until they are completed.

Grades of C or better for CPC-related courses will be accepted for entry in the graduate program. Grades below a C will be reviewed and may be considered satisfactory. A score equivalent to the grade of C or better will be required if CLEP, DANTES, or PSU competency examinations are used as an alternative for satisfying the MBA prerequisite competencies. All competencies must be completed before being fully accepted into the MBA program and prior to enrolling in the fifth MBA course.

Graduate Study by Undergraduate Seniors

Plymouth State University or Keene State College seniors with a cumulative grade point average of 3.0 or better may take up to six graduate credits with the prior permission of the instructor,

advisor, dean, and the associate vice president for the College of Graduate Studies as outlined on the Student Request form available at the Registrar's Office or College of Graduate Studies Office.

MBA Course Policies

AUDITS

Full tuition is charged for audits with the exception of MBA graduates, who may audit for one-half the full tuition rate. A change from credit to audit status may occur any time prior to the third class meeting.

TRANSFER CREDITS

Normally, graduate credit transfers from other accredited institutions are limited to nine credit hours. However, for students who have earned graduate credits from another nationally accredited program prior to enrolling at PSU, up to 15 credit hours of business or business-related courses may be considered for transfer.

Once enrolled in an MBA program, only courses completed at other ACBSP or AACSB accredited institutions may be transferred into PSU'S MBA program. All courses considered for transfer must have the approval of the MBA program coordinator. Approval prior to taking a course for transfer credit is recommended.

Grades for transfer courses must be at the B level or higher (on an A = 4.0 scale) and appropriate to the MBA program. Only credits are transferred, not grades; therefore, the grades for transfer courses do not count toward the required 3.0 grade point average for program completion. No course more than six years old at the time of admittance will count toward or transfer to the PSU MBA degree.

No graduate credit will be given for correspondence courses, curriculum workshops (unless designed for graduate credit), or Pass/No Pass courses. An official transcript must be on file in the College of Graduate Studies Office before credits can be transferred into the MBA program. Exceptions to this policy must be approved by the MBA program coordinator.

ACBSP (ASSOCIATION OF COLLEGIATE BUSINESS SCHOOLS AND PROGRAMS)

In accordance with ACBSP accreditation requirements, program assessment procedures will be implemented as a part of the three alternative MBA capstone courses: Seminar in Executive Management, New Ventures and Entrepreneurship, and Capstone: Health Care Topics. A random sample of 20 percent of student final project reports will be selected prior to grading by the instructor for the purposes of MBA program assessment only. The reports will be anonymously (student names eliminated) evaluated by the business department advisory board for MBA

program evaluation and improvement. Student evaluations and grades will not be impacted by this process.

DEGREE REQUIREMENTS

The College of Graduate Studies faculty sets degree requirements that include completion of all required courses (30 graduate credits minimum) with a cumulative grade point average of 3.0 or higher.

COMPLETION DEADLINES

All graduate degree requirements must be completed within six years from the date of admittance. The MBA program can be completed by either full- or part-time study.

Program of Study

REQUIRED COURSES

CREDITS

Functional Core Courses

Eight functional courses form the core of the MBA program for a total of 24 credits. These courses cover a common body of knowledge required of all PSU MBA students.

BU 5110	Managing Organizational Behavior	3
BU 5120	Financial Analysis and Decision Making	3
BU 5190	Accounting for Managers	3
BU 5210	Economic Analysis	3
BU 5220	The Legal Environment of Business	3
BU 5510	Operations Management	3
BU 5700	Marketing Techniques	3
BU 5720	Seminar in Executive Management	3

Elective Areas

Students are required to complete six credits of electives. This requirement may be satisfied using traditional coursework, Small Business Institute® consultations, independent studies, or Master's Research Projects. Students who want to satisfy elective credits by taking traditional coursework may select two electives from the following subject areas or certificate programs:

ACCOUNTING

BU 5550	Investment Management	3
BU 5580	Real Estate Entrepreneurship	3
BU 5590	Budgeting and Fund Accounting	3
BU 5600	Federal Taxes and Business Decisions	3
BU 5610	Contemporary Accounting and the Business Environment	3
BU 5620	Auditing Perspectives	3

ECONOMICS

EC/BU 5460	Graduate Money and Banking	3
EC 5610	Economic Issues in International Finance	3
EC 5615	Global Economics	3

GENERAL MANAGEMENT

BU 5225	Current Issues in Employment Law	3
BU 5500	Small Business Problems and Strategy: SBI I	3
BU 5501	Small Business Analysis: SBI II	3
BU 5850	New Ventures and Entrepreneurship	3

HEALTH CARE ADMINISTRATION

BU 5400	Survey of Issues in Health Care Administration	3
BU 5410	Human Resources in Health Care Administration	3
BU 5420	Health Care Laws and Ethics	3
BU 5430	Health Care Administration and Financial Management	3
BU 5490	Capstone: Health Care Topics	3

THE HUMAN SIDE OF ENTERPRISE

BU 5115	Creating Organizational Health	3
BU 5165	Training and Development	3
BU 5160	Seminar in Managing Human Resources	3
BU 5230	Management of Organizational Changes	3

MARKETING

BU 5240	Seminar in Organizational Communication	3
BU 5530	Multinational Marketing	3
BU 5630	PT: Strategic Communications	3
BU 5680	Applications in Marketing Research	3
BU 5690	Behavioral Perspectives in Marketing	3
BU 5730	Contemporary Issues in Marketing	3
BU 5810	Seminar in Corporate Public Relations	3

Students accepted into the MBA program meet with an advisor to set up an individualized program of study based on a review of competencies and previous coursework.

Minimum Total for MBA in General Management 30

GRADUATE CERTIFICATES

Seven graduate certificate programs have been developed for students to focus their studies in a particular area of the business environment. The certificates consist of a minimum of 12 credits, and can be pursued as a post-baccalaureate certificate, or in addition to an MBA degree. The certificate subjects and requirements are as follows:

HEALTH CARE ADMINISTRATION

Plymouth State University's Health Care Administration certificate addresses issues that challenge today's health care professionals. The certificate program consists of four courses designed and taught by leaders in the health care industry. For students interested in earning an MBA, the four Health Care Administration

courses plus an additional six graduate business courses can be applied toward a full MBA degree.

Program of Study

REQUIRED COURSES		CREDITS
BU 5410	Human Resources in Health Care Administration	3
BU 5420	Health Care Laws and Ethics	3
BU 5430	Health Care Administration and Financial Management	3
BU 5490	Capstone: Health Care Topics	3
Total for Health Care Administration Certificate		12

INVESTMENT AND FINANCE

The Investment and Finance certificate helps both individual and organizational financial managers meet the challenges posed by today's financial, economic, and accounting environments. Students learn best practices of financial analysis and decision making, and develop an in-depth understanding of international financial management. For students interested in earning an MBA, the four Investment and Finance courses plus an additional six graduate business courses can be applied toward a full MBA degree.

Program of Study

REQUIRED COURSES		CREDITS
BU 5120	Financial Analysis and Decision Making	3
BU 5190	Accounting for Managers	3
Choose two from:		
BU 5550	Investment Management	3
BU 5580	Real Estate Entrepreneurship	3
EC/BU 5460	Graduate Money and Banking	3
BU 5590	Budgeting and Fund Accounting	3

Total for Investment and Finance Certificate 12

ORGANIZATIONAL COMMUNICATION

The Organizational Communication certificate addresses the effective transmission of internal and external communication related to the organization. Particular emphasis is placed on developing critical skills such as speaking, listening, writing, and understanding nonverbal, visual, and mass communication. Public relations principles and practices are also stressed. Depth and scope are provided by the study of strategic communication involving issues management, media relations, and crisis planning. For students interested in earning an MBA, the four Organizational Communication courses and an additional six graduate business courses can be applied toward a full MBA degree.

Program of Study

REQUIRED COURSES		CREDITS
BU 5700	Marketing Techniques	3
BU 5110	Managing Organizational Behavior	3

Choose two from:

BU 5630	Strategic Communication: Issues Management and Crisis Planning	3
BU 5240	Seminar in Organizational Communication	3
BU 5810	Seminar in Corporate Public Relations	3

Total for Organizational Communication Certificate 12

SMALL BUSINESS AND ENTREPRENEURSHIP

The Small Business and Entrepreneurship certificate program is ideal for individuals planning to consult for small businesses or to open a small business. This intensive introduction to business planning includes defining the primary vision through market size assessment and strategic operations planning; how to finance, staff, and implement the new venture; and how to manage growth. The Small Business Institute® consistently wins national recognition in the annual Case of the Year competitions. The primary report, prepared by an MBA student consulting team for a client small business (under the direction of a faculty advisor), provides a unique, real-life learning experience for the students and a bankable business plan for the client. For students interested in earning an MBA, the four Small Business and Entrepreneurship courses plus an additional six graduate business courses can be applied toward a full MBA degree.

Program of Study

REQUIRED COURSES		CREDITS
BU 5850	New Ventures and Entrepreneurship	3
BU 5500	Small Business: Problems and Strategy (SBI I)	3
BU 5501	Small Business Analysis (SBI II)	3

Choose one from:

BU 5110	Managing Organizational Behavior	3
BU 5190	Accounting for Managers	3
BU 5220	Legal Environment of Business	3
BU 5700	Marketing Techniques	3

Total for Small Business and Entrepreneurship Certificate 12

STRATEGIC MARKETING MANAGEMENT

Marketing professionals wanting to update their experience with contemporary issues in marketing or business generalists looking to focus on marketing and revenue generating strategies will benefit from the Strategic Marketing Management certificate. The certificate provides coverage of various aspects of strategic marketing in today's business world and introduces theoretical and practical application for current and future marketing

professionals. For students interested in earning an MBA, the four Strategic Marketing Management courses and an additional six graduate business courses can be applied toward a full MBA degree.

Program of Study

REQUIRED COURSES		CREDITS
BU 5700	Marketing Techniques	3
BU 5220	Legal Environment of Business	3

Choose two from:

BU 5690	Behavioral Perspectives in Marketing	3
BU 5680	Applications in Market Research	3
BU 5730	Contemporary Issues in Marketing	3
BU 5810	Seminar in Corporate Public Relations	3
BU 5530	Multinational Marketing	3

Total for Strategic Marketing Management Certificate 12

THE HUMAN SIDE OF ENTERPRISE

The Human Side of Enterprise certificate builds on two MBA core courses—Legal Environment of Business and Managing Organizational Behavior—while allowing students to choose two specialized courses in motivation, communication, leadership, conflict management, collective bargaining and industrial relations, or organizational change management. For students interested in earning an MBA degree, the four Human Side of Enterprise courses plus an additional six graduate courses can be applied toward a full MBA degree.

Program of Study

REQUIRED COURSES		CREDITS
BU 5510	Managing Organizational Behavior	3
BU 5220	Legal Environment of Business	3

Choose two from:

BU 5160	Seminar in Human Resources	3
BU 5230	Management of Organizational Changes	3
BU 5240	Seminar in Organizational Communication	3
BU 5165	Training and Development	3
BU 5115	Creating Organizational Health	3
BU 5820	Women as Leaders	3
BU 5520	Negotiating, Collaborating, and Leading In Today's World	3

Total for The Human Side of Enterprise Certificate 12

INTERNATIONAL BUSINESS

The International Business certificate is available only in conjunction with the joint Plymouth State University and Babes-Bolyai University MBA program. This certificate delivers a rich, multi-cultural learning experience paired with a rigorous curriculum

and diverse faculty.

Program of Study

REQUIRED COURSES	CREDITS
BU 5510 Managing Organizational Behavior	3
BU 5220 Legal Environment of Business	3
BU 5700 Marketing Techniques	3
EC 5615 Global Economics	3
BU 5630 PT: International Business	3

Total for the International Business Certificate 15

Master's Research Project Option

Candidates may complete a six-credit Master's Research Project by working closely with a professor to conduct an investigation on either a theoretical or applied problem relating to a major interest. To register for the Master's Research Project (BU 5750), students must complete an Application for Individual Enrollment that must be signed by the student, professor, and program coordinator. Additionally, three copies of the Master's Research Project must be submitted to the faculty advisor and an oral presentation given to a committee no later than April 1 of the intended year of graduation.

Small Business Institute® (SBI)

The Small Business Institute® (SBI) gives MBA students the opportunity to earn three to six credits while serving local small businesses as members of consulting teams. Working with a business faculty member, SBI teams visit client companies, define the project scope, execute agreed-upon tasks, and then prepare and present a formal, professional-quality report. Over the past 35 years, PSU SBI students have won dozens of statewide, regional, and national awards in SBI competitions. The SBI experience allows qualifying students to ground their studies in a real world experience. A six-credit SBI project is a requirement of the Small Business and Entrepreneurship certificate or concentration.

Twelve-Month Program

MBA courses are delivered in a variety of formats, such as online, weekends, or evenings on a quarter system (fall, winter, spring, and summer). In addition to providing excellent access for part-time students, this allows students who have met all undergraduate competencies prior to beginning their program to complete the MBA program in just four quarters (fall, winter, spring, and summer).

MASTER OF EDUCATION (MEd)

The Master of Education degree program consists of a variety of majors and options to address professionals involved in education at the elementary, middle, secondary, adult education, and post-secondary levels. Programs of study are organized around core courses that address the graduate program hallmarks, and specialization courses that target the development of professional knowledge and skills. All programs include a capstone component, which may include an internship, practicum, individual research project, or thesis.

Curriculum

The courses in the MEd degree program are based on state and national standards. The format of the courses encourages students to build professional learning communities through hybrid, online, in-person, and intensive weekend or weeklong courses.

Program Goals

Each program major and option is designed for students to acquire knowledge and skills related to the discipline. MEd degree candidates have the opportunity to develop competence in the following areas, which include twenty-first century learning skills:

- Critical thinking and problem solving
- Communication
- Collaboration
- Creativity and innovation
- Information, media, and technology literacy
- Initiative, self-direction, and decision making
- Flexibility and adaptability
- Social and cross-cultural skills
- Research, understanding of data, assessment, and accountability
- Understanding of diversity
- Leadership and responsibility
- Developing as a professional in their field of study

Program Content

The MEd offers a variety of high-quality programs designed to meet the personal goals and professional needs of students. All MEd degree programs require core courses in research, philosophy, and diversity, and a capstone experience of a graduate practicum, internship, individual research project, or thesis. Graduate students are expected to develop competencies in critical thinking, communications, collaboration, diversity, leadership, research, and technology. Programs in Teacher Education address knowledge-based guidelines articulated by the National Council for Accreditation of Teacher Education (NCATE), and competencies outlined by the New Hampshire Department of Education and nationally recognized professional organizations of the various disciplines.

Admission Requirements

The College of Graduate Studies considers applications on a rolling admissions basis, providing applicants the opportunity to begin courses at any time. Students may take up to 12 credits (four courses) before being officially admitted to the program.

Graduate students are responsible for knowing policies governing their program, registration, change of schedule, withdrawal, and other PSU policies and procedures.

MEd in Counselor Education

Program Coordinators:

Mental Health and Self-Designed Counseling

Gail Mears, PsyD

(603) 535-2485, e-mail: gmears@plymouth.edu

School Counseling

Gary Goodnough, PhD

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School Psychology

Leo Sandy, EdD

(603) 535-2287, e-mail: lsandy@plymouth.edu

Plymouth State University's MEd in Counselor Education program is designed to prepare counselors who understand and are sensitive to the needs of the individuals with whom they work. Since this is a program of professional counselor preparation, emphasis is placed on personal and interpersonal growth in addition to academic excellence. The program is structured so that students progress through a foundational core to self-development, skill development, and application. This is facilitated by a sequence of field experiences that progressively assist students to connect theory with practice. For example, pre-practicum experiences are integrated into selected professional courses (CO 5050, CO 5030, CO 5230, CO 5600, and SY 6010) and include brief counseling and other activities in schools or other settings. CO 5100 Practicum in Counseling is taken in order for students to develop and practice counseling skills and community outreach with a number of clients. Finally, the internship places students in settings that allow them to experience the full range of the activities that are associated with the role of the counselor or school psychologist. Students in this program must complete a residency requirement while completing their internship experience.

The Counselor Education program offers four concentrations that lead to the MEd:

- Mental Health Counseling
- School Counseling
- School Psychology
- Self-Designed

As well as four certificate programs:

- Conflict in Families
- Eating Disorder Institute
- Parenting Education
- Play Therapy

And two post-master's programs:

- School Counseling Conversion Program
- School Psychology Conversion Program

National Accreditation

The Council for the Accreditation of Counselor Education and Related Educational Programs (CACREP) is the national accrediting agency of Counselor Education Programs. In January 2007, PSU's MEd in Counselor Education, School Counseling, and Mental Health Counseling concentrations received CACREP accreditation.

Admission Process

Professional counseling organizations recommend that program admissions criteria include consideration of the applicant's openness to self-examination and personal and professional self-development. For this reason, admission into the Counselor Education and School Psychology MEd, CAGS, and professional certification programs involves a two-part process. Prospective students apply to the College of Graduate Studies and participate in the Counselor Education and School Psychology Admissions Interview. The admissions interview is a half-day event held in August, November, February, and May, and involves an informational session along with group and individual interviews. Participation in the interview process is open to any prospective student and is not dependent on students having completed the application process to the College of Graduate Studies. An admissions decision will be made upon completion of both of the application and admissions interview.

This process follows the guidelines endorsed by professional organizations regarding the necessity of faculty input into the admissions process. While students are allowed to take up to 12 credits before completing the application process, it is important for students to understand that successful completion of coursework is not a guarantee of admission into the counselor education and school psychology programs. An admission decision is rendered only after the prospective student's application has been reviewed and the student has participated in a group interview.

Counselor Education Monitoring and Dismissal Process

The program faculty has the responsibility to monitor students' personal and professional characteristics that have the potential to interfere with their ability to perform in an ethical and professionally competent manner. Additionally, the faculty

monitors students' academic performance. Thus, all counselor education students are continuously monitored while they are enrolled in counselor education and school psychology courses. This review is done at regularly scheduled faculty meetings by the counselor education faculty in consultation with adjunct faculty.

ACADEMIC REVIEW

Student transcripts are reviewed during faculty meetings. As per the policy of the College of Graduate Studies, all students must maintain an overall grade point average of at least a 3.0. If the overall grade point average falls below 3.0, students will be required to meet with their advisors to develop a plan for increased academic success and will be placed on academic probation for one term. If at the end of the next term, the student's grade point average remains below a 3.0, the student will be subject to dismissal from the counselor education program.

Students who receive an F in a course will need to meet with their advisor and at least one other faculty member to address the issue. Students will be barred from future coursework unless and until they initiate an appeal process by contacting their advisor. Students may not voluntarily retake courses, and extraordinary permission may only be granted by petition to the associate vice president for the College of Graduate Studies. Students should request a review of their status to determine if they may retake the failed course and if they will be allowed to continue with their program.

PERSONAL AND PROFESSIONAL REVIEW

As part of the regular review of students' personal and professional performance, faculty members note personal and professional issues that significantly affect students' ability to function adequately as counselors, graduate students, and professionals. The counselor education faculty will delineate specific action steps for students as needed. The students' advisor (perhaps in conjunction with the program chair) will meet with the student to discuss remediation action steps. Depending upon the nature and severity of the concerns, appropriate action steps will range from collaborative strategies for personal and professional improvement to a required leave of absence to dismissal from the counselor education program. For those continuing in the program, a schedule of follow-up meetings will occur as part of the process.

A review of dismissal decisions can be requested from the associate vice president for the College of Graduate Studies and the vice president for academic affairs.

INTERNSHIP

Students in the School Counseling concentration must successfully complete a 600-hour comprehensive public school internship in school counseling at the elementary, middle, and

secondary levels in order to demonstrate and further develop relevant competencies. In order to be recommended for certification as a school counselor, students must complete six credits of CO 5850 Seminar and Internship in School Counseling K–12. The internship component of these experiences must be completed in school settings that have as their primary function the education of public school students. In addition, students must be supervised on site by a certified school counselor and must be able to attend on-campus seminars during the terms they are involved in their internship experiences. Internships must be completed during the academic year and must be approved in advance by the counselor education faculty.

Students in the Mental Health Counseling concentration must successfully complete a 900-hour mental health counseling internship in a mental health setting. Students can choose to remain in one setting or can split their time between two settings. Students must be in each field placement for a minimum of 400 hours. A mental health provider licensed under the New Hampshire Board of Mental Health Practice must provide individual supervision at the internship site on a weekly basis. Students interning out of state need to be supervised by mental health providers licensed in the state in which they are practicing. In addition to their field experience, students are required to attend a weekly university-based internship seminar. Typically, the internship requirement is met over three academic terms and carries nine credits. Students must complete their internship experience within two calendar years.

Students in the Self-Designed concentration must complete three credits (225 hours) of CO 5800 Counseling Internship in their focus area.

Students in the School Psychology concentration must successfully complete a 1200-hour comprehensive public school internship in school psychology that spans the K–12 grade levels in order to demonstrate and further develop relevant competencies. In order to be recommended for certification as a school psychologist, students must complete 12 credits of SY 6800 Seminar and Internship in School Psychology. The internship component of these experiences must be completed in school settings that have as their primary function the education of public school students. In addition, students must be supervised on site by a certified school psychologist and must be able to attend on-campus seminars during the terms they are involved in their internship experiences. Typically, the internship requirement is met over three academic terms (fall, winter, and spring) and carries 12 credits. Students must complete their internship experience within two calendar years. Placements that include appropriate field supervision must be approved well in advance by the School Psychology program coordinator.

In all concentrations, all required professional courses must be successfully completed before students can enroll in the internship experience. Students must contact their program coordinator during the term prior to their internship experience in order to make appropriate arrangements. The deadlines are October 1 for the spring term and February 1 for the fall term, unless these dates fall on weekends.

MENTAL HEALTH COUNSELING CONCENTRATION

The Mental Health Counseling concentration is designed to prepare students to function as licensed clinical mental health counselors. It provides the educational requirements outlined by the New Hampshire Board of Mental Health Practice as requisite to attaining mental health counseling licensures. Students should note that there are significant post-degree requirements to undertake prior to being licensed.

Program of Study

REQUIRED COURSES	CREDITS
<i>Counselor Education Core</i>	
CO 5010 Professional Orientation, Ethics, and Advocacy	3
CO 5050 Advanced Human Development	3
CO 5040 Social Behavior and Diversity	3
CO 5070 Research Design for the Professions	3
CO 5100 Practicum in Counseling	3
CO 5230 Career Counseling and Development	3
CO 5260 Counseling Theories	3
CO 5020 Counseling Skills	3
CO 5430 Assessment and Consultation	3
CO 5460 Group Counseling	3
<i>Mental Health Counseling Specialization Courses</i>	
CO 5130 Psychopharmacology and the Biological Basis of Mental Health	3
CO 5600 Foundations of Mental Health Counseling	3
CO 5670 Family and Social Systems	3
CO 5700 Critical Issues: Mental Health Practice	3
CO 5770 Psychopathology: Disorders of Childhood, Adolescence, and Adulthood	3
CO 5780 Counseling Youth	3
CO 5790 Assessment, Diagnosis, and Treatment Planning	3
CO 5880 Seminar and Internship in Mental Health Counseling	9
<i>Elective</i>	3
<i>Total for MEd in Counselor Education, Mental Health Counseling Concentration</i>	63

SCHOOL COUNSELING CONCENTRATION

The School Counseling concentration is designed to prepare students to function as K–12 Certified Professional School Counselors. This program is approved by the New Hampshire Department of Education and leads to New Hampshire certification in school (guidance) counseling. Candidates will be expected to develop a portfolio based on the New Hampshire state standards for school guidance counseling. This portfolio will be reviewed and completed during internship.

Program of Study

REQUIRED COURSES	CREDITS
<i>Counselor Education Core</i>	
CO 5010 Professional Orientation, Ethics, and Advocacy	3
CO 5050 Advanced Human Development	3
CO 5040 Social Behavior and Diversity	3
CO 5070 Research Design for the Professions	3
CO 5100 Practicum in Counseling	3
CO 5230 Career Counseling and Development	3
CO 5260 Counseling Theories	3
CO 5020 Counseling Skills	3
CO 5430 Assessment and Consultation	3
CO 5460 Group Counseling	3
<i>School Counseling Specialization Courses</i>	
CO 5030 Foundations of School Counseling	3
CO 5650 Critical Issues in Schools	3
CO 5780 Counseling Youth	3
CO 5850 Seminar and Internship in School Counseling K–12	6
<i>Elective</i>	3
(Students without a teaching background must take CO 5080 as their elective)	
CO 5080 The Counselor in the Classroom	3
<i>Total for MEd in Counselor Education, School Counseling Concentration</i>	48

SCHOOL PSYCHOLOGIST CONCENTRATION

The School Psychologist concentration is a 69-credit program designed for individuals who desire certification in school psychology at the state and national level. Those candidates who already possess a master's degree in a related field will want to explore the CAGS program in school psychology or the conversion program.

Candidates are expected to possess strong interpersonal skills. The program emphasizes those abilities that enable practitioners to promote the development of children not only in direct ways, but also through consultation and the initiation of

systemic change—specifically, as it relates to the formation of environments that provide physical and psychological safety and nurture social and emotional development, democratic participation, and intellectual curiosity. A particular program emphasis is on working as a member of a collaborative team.

Field experiences are provided at local schools under the supervision of nationally certified school psychologists and university professors who are likewise trained and certified.

During the time of their enrollment in the program, candidates will be expected to develop an electronic portfolio based on the New Hampshire state standards for school psychology. This portfolio will be reviewed and completed during the internship.

Program of Study

REQUIRED COURSES	CREDITS
Foundation Courses	
CO 5040 Social Behavior and Diversity	3
CO 5050 Advanced Human Development	3
CO 5070 Research Design for the Professions	3
ED 5060 Theories of Learning and Cognitive Development	3
CO 5260 Counseling Theories	3
CO 5130 Psychopharmacology and the Biological Basis for Mental Health	3
SE 5600 Language and Learning Disabilities	3
OR	
SE 5601 Advanced Psycho Educational Assessment of Learning Disabilities and Exceptionalities	3
CO 5770 Psychopathology: Disorders of Childhood, Adolescence, and Adulthood	3
CO 5670 Family and Social Systems	3
OR	
CO 5300 Foundations and Multicultural Aspects of Parenting	3
Professional Courses	
SY 6010 Foundations of School Psychology	3
CO 5020 Counseling Skills	3
ED 5570 Classroom Intervention and Special Education Strategies	3
SY 6200 Behavioral Assessment, Analysis, and Intervention	3
CO 5670 Family and Social Systems	3
CO 5780 Counseling Youth	3
SE 5190 Educational Testing	3
SY 6300 Social/Emotional/Behavioral Assessment	3
SY 6400 Administering Individual Intelligence Tests	3
SY 6700 Practicum I: Assessment, Intervention, And Consultation	3
SY 6710 Practicum II: Integration and Case Studies	3
SY 6800 School Psychology Internship	12

and Seminar (1,200 hours with full-time school psychologist)

Total for MEd in Counselor Education, School Psychologist Concentration with certification **69**

Note: Students who complete the program may wish to apply for national certification, which is granted by the National School Psychology Certification Board (not NASP) and is called NCSP for the Nationally Certified School Psychologist. The University's school psychology graduate program has been approved by the New Hampshire Department of Education.

SELF-DESIGNED CONCENTRATION

The Self-Designed concentration comprises all courses in the counselor education core plus focused electives. This combination allows for basic professional counselor competency plus additional competencies as selected by the student. This concentration does not prepare students for mental health or school counseling specializations; rather, it prepares students with core counseling skills to function professionally in various areas of counseling, human services, and education. The concentration contains the counseling core and may serve as a foundation for later training that could lead to certification or licensure.

Program of Study

REQUIRED COURSES	CREDITS
Counselor Education Core Courses	
CO 5010 Professional Orientation, Ethics, and Advocacy	3
CO 5050 Advanced Human Development	3
CO 5040 Social Behavior and Diversity	3
CO 5070 Research Design for the Professions	3
CO 5230 Career Counseling and Development	3
CO 5260 Counseling Theories	3
CO 5020 Counseling Skills	3
CO 5460 Group Counseling	3
CO 5430 Assessment and Consultation	3
CO 5100 Practicum in Counseling	3
CO 5800 Counseling Internship	3

Focused Electives* **12**

Total for MEd in Counselor Education, Self-Designed Concentration **45**

* Often fulfilled through certificate programs in PATH, OATH, Conflict in Families, Eating Disorders Institute, or Parenting Education. Other potential focus areas exist, including career development, Project Adventure, and adult learning.

GRADUATE CERTIFICATES

The following certificate programs can be taken on their own, in conjunction with the Self-Designed concentration, or the CAGS Mental Health Counseling concentration. **Note:** The Play Therapy certificate is for post-master's students with previous coursework in counseling children.

CONFLICT IN FAMILIES CERTIFICATE

The Conflict in Families certificate is designed to meet the needs of professionals who work with youth and families.

Students interested in the certificate option need to demonstrate proficiency in human development or take a graduate-level human development course. Special electives constitute the course requirements for the certificate option.

Program of Study

REQUIRED COURSES	CREDITS
CO 5020 Counseling Skills	3
CO 5535 Foundations of Conflict Resolution	3
CO 5560 ST: Violence in Families	3
CO 5300 Foundations and Multicultural Aspects of Parenting	3
CO 5670 Family and Social Systems	3
CO 5800 Counseling Internship	3
Total for Conflict in Families Certificate	18

EATING DISORDERS INSTITUTE

The Eating Disorders Institute is designed to provide knowledge and skills to a wide range of professionals seeking to further their expertise in the area of eating disorders. All health care professionals, mental health professionals, and educators (i.e., counselors, psychologists, dietitians, nurses, physicians, and dentists) who work with students and clients will benefit from this program. The institute may also be incorporated into a Self-Designed MEd in Health Education or Counselor Education degree.

Program of Study

REQUIRED COURSES	CREDITS
CO 5160 Eating Disorders: Awareness, Prevention, and Education	3
CO 5190 Medical and Physiological Aspects of Eating Disorders	3
CO 5180 Nutrition: Education and Counseling	3
CO 5170 Treatment Modalities for Eating Disorders	3
CO 5150 Eating Disorders Clinical	3
Total for Eating Disorders Institute Certificate	15

PARENTING EDUCATION CERTIFICATE

The Parenting Education certificate is offered for graduate students, counselors, teachers, and other human relations professionals interested in enhancing their understanding of parenting education, developing the skills necessary to work with parents, and planning or refining existing parenting programs. This program allows matriculating students to use their electives to add parenting education as a specialization within their degree programs.

Candidates must be admitted graduate students or hold a master's degree in a related area. Admitted graduate students must be recommended for the program by their advisor. Other candidates must provide two recommendation letters attesting to their potential as a parent educator. Waivers for prerequisite courses must be obtained from the instructors.

Program of Study

REQUIRED COURSES	CREDITS
CO 5300 Foundations and Multicultural Aspects of Parenting	3
CO 5310 Strategies for Parenting Education	3
ED 5210 Graduate Practicum*	3
Human Development/Special Education Courses	6
Total for Parenting Education Certificate	15

* Replaces CO 5800 for students in the Self-Designed concentration with the parenting certificate

PLAY THERAPY CERTIFICATE

Play Therapy provides school and mental health counselors with useful, research-based tools and techniques to help children and adolescents through a variety of social, emotional, behavioral, and learning difficulties. These problems can include post-traumatic stress disorder, conduct disorder, aggression or impulsive anger, anxiety, depression, ADHD, and low self-esteem.

Plymouth State University's play therapy courses provide post-master's counseling professionals and master's degree students with prior coursework in counseling with children the necessary educational requirements to be eligible for the credential of Registered Play Therapist through the International Association for Play Therapy.

Program of Study

REQUIRED COURSES	CREDITS
CO 7010 Foundations of Play Therapy	3
CO 7020 Child Centered Play Therapy	3
CO 7210 Practicum in Play Therapy	3
Total for Play Therapy Certificate	9

CONVERSION PROGRAMS IN SCHOOL PSYCHOLOGY AND SCHOOL COUNSELING

These individually designed programs are for experienced educators, counselors, psychologists, and social workers with master's degrees who are seeking state certification as school psychologists or school guidance counselors. These non-degree programs of professional certification are individually designed based on the student's previous graduate work as it relates to the requirements set forth by the NH Department of Education for certification. Both programs require the completion of an electronic portfolio. In addition to the standard College of Graduate Studies MEd application and admission requirements, applicants for conversion programs must possess a master's degree in a related field from an accredited institution and must complete an individual interview with the program coordinator to review previous transcripts and determine eligibility.

MEd in Educational Leadership

Program Coordinator: Christie Sweeney, EdD
(603) 535-3096, e-mail: clsweeney@plymouth.edu

The MEd in Educational Leadership prepares educators for a variety of leadership roles such as principal, special education administrator, team leader, or department chair at the elementary, middle, and secondary levels in both public and private school settings.

The Educational Leadership program incorporates theory and practice. The course of study is based on the understanding that specific methods of organizing and operating schools change, but that sound theory related to management, decision making, human relations, and participatory leadership remain constant.

In general terms, the program provides candidates with an increased understanding of present and probable future roles of school leaders; an ability to identify and prioritize steps that lead an educational institution in a positive direction for the benefit of children, the adults who work with them, and society at large; a wide variety of approaches to school leadership that reflect flexibility in methodology and outlook; opportunities to test ideas with colleagues and other practitioners; occasions to build upon previous leadership experience; current research concerning school reform and innovation; and support in developing the self-confidence necessary for providing leadership to others.

More specifically, candidates are expected to develop expertise in helping others create a vision for the future and translate that vision into reachable goals; organizing a school to optimize its human and material resources; bringing about positive change; fostering a school environment that empowers students and adults; creating budgets that are cost effective and facilitate

reaching institutional goals; communicating effectively with a variety of audiences and managing information; leading others in a humane and participatory fashion; developing and assessing curricula and programs that address individual or group needs and are consistent with sound learning theory; understanding the impact of law on policy development, decision making, student and staff rights, and inclusionary practices; establishing a link between effective staff development and evaluation procedures; and creating a partnership between the school and the community.

ATHLETIC ADMINISTRATION CONCENTRATION

Program Coordinator: Irene Cucina, DPE
(603) 535-2517, e-mail: icucina@plymouth.edu

This program is for students seeking career opportunities within the professional and collegiate sport industry. Occupational paths for athletic administration graduates include sport facility and arena management; professional sport organizations; managerial positions at sporting goods companies; management of resorts, private clubs, and camps; and managerial jobs in governmental agencies and sport marketing organizations. The graduate curriculum includes coursework in organizational theory, personnel management, sport marketing, and liability issues. The program is designed to meet the interests and needs of students coming from a variety of undergraduate backgrounds, including business management. Individual coursework and electives are determined on the basis of the candidate's educational experience, vocational training, needs, and interests.

Program of Study

REQUIRED COURSES	CREDITS
Master's Core Component	
ED 5000 Social Behavior in a Diverse Society	3
ED 5010 Philosophy, Ethics, and Education	3
ED 5030 Research Design	3
OR	
AT 5600 Research for the Health Sciences	3
Athletic Administration Core	
PE 5600 Athletic Administration	3
PE 5610 Sports Law	3
PE 5620 Sport Finance and Marketing	3
PE 5630 Sports Psychology	3

Athletic Administration Electives

Choose 9 credits of electives from the following list. Other electives may be taken upon approval of advisor.

PE 5640 Sports, Society, and Cultures	3
HH 5700 Creating Organizational Health	3
HH 5820 Women as Leaders	3
PE 5560 ST: Strength and Conditioning	3
HL 5200 Aging and Physical Activity	3

HP 5090	Mind Body Techniques for Stress and Health	3
PE 5560	ST: High/Low Ropes Course	3
PA 5560	Project Adventure	3
HL 5560	Health and Fitness	3

Capstone Experience

ED 6900	Graduate Capstone Project	3
	OR	
ED 5210	Graduate Practicum	6

**Total for MEd in Educational Leadership,
Athletic Administration Concentration** **33**

K-12 SCHOOL PRINCIPAL CONCENTRATION

Program Coordinator: Christie Sweeney, EdD
(603) 535-3096, e-mail: clsweeney@plymouth.edu

Graduates of this degree program who possess at least three years of teaching experience are eligible for certification as a school principal (with appropriate coursework) in New Hampshire. Reciprocity through interstate compacts extends this certification to many additional states.

Program of Study

REQUIRED COURSES CREDITS

Master's Core Component

ED 5000	Social Behavior in a Diverse Society	3
ED 5010	Philosophy, Ethics, and Education	3
AD 5030	Research Design for the Professions	3
ED 5060	Theories of Learning and Cognitive Development	3
ED 5570	Classroom Intervention and Special Education Strategies	3

Initial Course in the Sequence

AD 5010	Organizational Leadership in Schools	3
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Professional Component for School Principal

AD 5020	Staff Development and Evaluation	3
AD 5300	School Finance and Negotiation	3
AD 5330	Leadership in Curriculum Development and Assessment	3
AD 5700	School Law	3
AD 5830	Educational Planning and Problem Solving	3

Capstone Experience

AD 5800	Practicum in Educational Leadership: The Principalship	3
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**Total for MEd in Educational Leadership,
K-12 School Principal Concentration** **36**

K-12 SPECIAL EDUCATION ADMINISTRATOR CONCENTRATION

Program Coordinator: Marcel Lebrun, PhD
(603) 535-2288, e-mail: mrlebrun@plymouth.edu

Graduates of this degree program who possess at least three years of teaching experience are eligible for certification as a special education administrator (with appropriate coursework) in New Hampshire. Reciprocity through interstate compacts extends this certification to many additional states. This program requires previous certification in K-12 General Special Education as well as teaching experience.

Program of Study

REQUIRED COURSES CREDITS

Master's Core Component

ED 5000	Social Behavior in a Diverse Society	3
ED 5010	Philosophy, Ethics, and Education	3
AD 5030	Research Design for the Professions	3
ED 5060	Theories of Learning and Cognitive Development	3

Initial Course in Educational Leadership Component

AD 5010	Organizational Leadership in Schools	3
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Educational Leadership Component

AD 5020	Staff Development and Evaluation	3
AD 5300	School Finance and Negotiation	3
AD 5700	School Law	3
	OR	
SE 5300	Special Education Law	3

Special Education Component

CO 5430	Assessment and Consultation	3
SE 5760	Collaboration, Consultation, and Leadership in Special Education	3
SE 6040	Curriculum Development in Special Education	3

Capstone Experience

SE 5800	Practicum in Special Education	3
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**Total for MEd in Educational Leadership,
Special Education Administrator Concentration** **36**

MEd in Elementary Education

Program Coordinator: Susan A. Shapiro, MEd
(603) 535-2204, e-mail: sashapiro@plymouth.edu

K-8 CERTIFICATION

The MEd in Elementary Education K-8 certification leads to certification to teach grades K-8 in New Hampshire.

Required college-level coursework or equivalent competencies in general undergraduate education (demonstrated through transcript audit, portfolio, or exam): English composition and literature, college mathematics beyond algebra, physical and biological sciences, American government, U.S. history, and New Hampshire and New England history.

Program of Study

REQUIRED COURSES CREDITS

Master's Core Components

ED 5000	Social Behavior in a Diverse Society	3
	OR	
ED 5005	Social Psychology and Mythology across Cultures	3
ED 5010	Philosophy, Ethics, and Education	3
ED 5030	Research Design	3

Learning Theory Requirements

ED 5270	Foundations of Teaching	3
ED 5060	Theories of Learning and Cognitive Development	3
ED 5080	Instructional Strategies and Curriculum Design	3
ED 5570	Classroom Intervention and Special Education Strategies	3
ED 6100	Curriculum Integration and Performance-Based Assessment	3
	OR	
RL 5710	Advanced Diagnostic Testing and the Improvement of Reading and Writing	3

Interdisciplinary Methods Requirements

ED 5500	Science Methods	3
ED 5500	Math Methods	3
IN 5970	Integrated Arts	3
RL 5110	Research in Reading and Writing	3
RL 5300	Advanced Children's/Young Adult Literature	3
HS 5100	Heritage Studies (Social Studies Methods)	3
HP 5110	Wellness Concepts for Educators	2
CE 5120	Integrating Technology into the Curriculum	3

Capstone Experience

ED 5960	Internship in Education	9
	OR	
ED 5210	Graduate Practicum (if employed)	6

Total for MEd in Elementary Education, K–8 Certification 54–57

Note: Learning theory requirements are determined based on previous coursework in the undergraduate major, previous certifications held, etc. Candidates who have met certification requirements prior to admission will have a reduced number of

credits required to complete the MEd degree, but no fewer than 33 credits.

Self-Designed MEd in Elementary, Secondary, or K–12 Education

This degree program is the most flexible for graduate study as it allows students to develop a program of study addressing personal and professional goals and interests. This concentration is often multidisciplinary, and students may choose to incorporate courses from the Master of Business Administration or Master of Science programs.

Program of Study

REQUIRED COURSES CREDITS

Master's Core Component

ED 5010	Philosophy, Ethics, and Education	3
ED 5000	Social Behavior in a Diverse Society	3
	OR	
ED 5005	Social Psychology and Mythology across Cultures	3
ED 5030	Research Design	3

Specialization Component 21

Capstone Experience

ED 5210	Graduate Practicum	6
	OR	
ED 5580	Individual Research Project	3
	OR	
ED 5950	Graduate Thesis	6
	OR	
ED 6900	Graduate Capstone Project	3

Total for MEd in Elementary, Secondary, or K–12, Self-Designed 33

Students may elect a focus area for their Self-Designed MEd in Elementary, Secondary, or K–12 Education:

FOCUS IN ADULT LEARNING AND DEVELOPMENT

Program Coordinator: Cheryl B. Baker, CAGS
(603) 535-2737, e-mail: cbaker@plymouth.edu

Courses in this program help students to understand adult learning styles and will guide students through the process of creating successful programs for adult learners. Students will learn a framework for understanding and responding to the unique needs of adult learners.

FOCUS IN ADVENTURE LEARNING

Program Coordinator: Jamie Hannon, MS
(603) 535-2513, e-mail: jhannon@plymouth.edu

PSU has active partnerships with Project Adventure and High 5, both leading providers of adventure programming. Working with PSU advisors, students craft a degree program that includes multi-day workshop experiences and theory, and practice projects at their home sites to create a powerful learning experience.

FOCUS IN CURRICULUM AND INSTRUCTION

Program Coordinator: Cheryl B. Baker, CAGS
(603) 535-2737, e-mail: cbaker@plymouth.edu

Students interested in improving their teaching skills and content knowledge are encouraged to pursue this option. Designed with the flexibility to meet the individual needs of the learner, this option allows students to study various curricular areas to enhance their teaching.

FOCUS IN MIDDLE LEVEL EDUCATION

Program Coordinator: Cheryl B. Baker, CAGS
(603) 535-2737, e-mail: cbaker@plymouth.edu

Students interested in middle level education may take courses offered through the New England League of Middle Schools (NELMS). Year-round academies, regional conferences, summer conferences in Sturbridge, MA, and the annual conference in Providence, RI, offer students an institute and distance-learning format to achieve their goals. Students combine independent study, attendance at NELMS-sponsored conferences, previous education, and a capstone project (ED 5580 Research Project or ED 5210 Graduate Practicum) to earn the MEd degree. Areas of specialization include curriculum, leadership, and technology, as well as electives that support personal interests and goals.

FOCUS IN SCIENCE EDUCATION THROUGH THE AMERICAN MUSEUM OF NATURAL HISTORY (AMNH)

Program Coordinator: Cheryl B. Baker, CAGS
(603) 535-2737, e-mail: cbaker@plymouth.edu

Students interested in science can take courses offered through AMNH's Seminars on Science program. Each four-credit AMNH course is offered in an online format. Courses include:

- Earth: Inside and Out
- The Ocean System
- Space, Time and Motion
- Genetics, Genomics, Genethics
- The Link Between Dinosaurs and Birds
- Sharks and Rays: Ecology, Classification and Evolution
- The Diversity of Fishes
- In the Field with Spiders

- Evolution
- The Solar System

Plymouth State University also offers three graduate-level certificate programs that incorporate the AMNH courses. Each certificate requires four AMNH courses for a total of 16 credits. Certificate focus areas are in general science, life science, and physical science.

MEd in English Education

Program Coordinator: Meg Petersen, PhD
(603) 535-2684, e-mail: megp@plymouth.edu

5–12 ENGLISH EDUCATION CONCENTRATION

Students interested in obtaining New Hampshire Teacher Certification in English (grades 5–12) should select this option. Graduates will be certified in New Hampshire and fully qualified to teach English and language arts in grades 5–12. The program is designed to meet all New Hampshire, NCATE, and NCTE standards for the preparation of teachers of English and language arts as well as providing a background in the subject areas of literature, writing, and language at the graduate level.

Required college-level coursework or equivalent competencies (audit, portfolio, or exam): analyzing and interpreting literature and literary criticism; creative and non-fiction writing above composition level; study of language; study of grammar; completion of four upper-level literature courses; sign language, journalism, communications, or media; and completion of six credits in American literature, British literature, or humanities.

Program of Study

REQUIRED COURSES		CREDITS
<i>Master's Core Component</i>		
ED 5000	Social Behavior in a Diverse Society	3
	OR	
ED 5005	Social Psychology and Mythology across Cultures	3
	OR	
LL 5005	Foundations of TESOL Methodology	3
ED 5010	Philosophy, Ethics, and Education	3
EN 5000	Teacher Action Research	3

Learning Theory Requirements (if not met in undergraduate work)

ED 5270	Foundations of Teaching	3
ED 5060	Theories of Learning and Cognitive Development	3
ED 5570	Classroom Interventions and Special Education Strategies	3

English Methods Component

EN 5640	Theory and Practice: Teaching Writing at the Secondary Level	3
EN 5870	Teaching Literature in Secondary School	3

English Component (Literature/Writing Electives) 6

Capstone Component

ED 5960	Internship in Education	9
	OR	
ED 5210	Graduate Practicum	6

Total for MEd in English Education, 5–12 English Education Concentration 33–36

TEACHING OF WRITING CONCENTRATION

The Teaching of Writing concentration is designed for students who want to enhance their professional development through working with their own writing in various genres and becoming writing specialists in their fields. Students may become classroom teachers, professional writers, or writing teachers at any level. The program is designed to help participants improve their own writing in a variety of genres; improve teaching skills related to the running of writing workshops; enhance their use of literature in the writing classroom; work toward publishing their own and their students' writing; and work with teaching writing at a variety of levels and in different situations.

Program of Study

REQUIRED COURSES	CREDITS
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Master's Core Component

ED 5000	Social Behavior in a Diverse Society	3
	OR	
ED 5005	Social Psychology and Mythology across Cultures	3
ED 5010	Philosophy, Ethics, and Education	3
EN 5000	Teacher Action Research	3

English Component

EN 5630	Writing Workshop for Teachers	3
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Two Literature courses, such as

EN 5500	Topics in Teaching Literature	3
	Elective English/Writing Courses	12

Capstone Experience 3–6

ED 5210	Graduate Practicum	1-6
	OR	
ED 5580	Individual Research in Education	3
	OR	
ED 5950	Graduate Thesis	1-9

Total for MEd in English Education, Teaching of Writing Concentration 33–36

MEd in Health Education

Program Coordinator: Irene Cucina, DPE
(603) 535-2517, e-mail: icucina@plymouth.edu

The goal of the health education field is to promote, maintain, and improve individual and community health through the educational process in a wide variety of settings. Professional health educators are prepared to address 10 basic content areas:

- Community health
- Family life, growth, and development
- Nutrition
- Personal health
- Mental and emotional health
- Prevention and control of disease and disorders
- Safety and accident prevention
- Environmental health
- Consumer health
- Substance use and abuse

Health educators are active in the development and delivery of educational services in schools, clinical and corporate settings, and in community service organizations. Activities of a health educator may involve teaching, counseling, consulting, and communication using all types of media.

Applicants for this degree must hold a baccalaureate degree in the biological sciences or hold a liberal arts degree with a concentration in the sciences, health education, physical education, or nursing. Coursework in human anatomy, physiology, and psychology are necessary prerequisites of all content coursework.

Two concentrations are available in this program: K–12 Health Education (leading to New Hampshire Teacher Certification) and Health Promotion. The core education courses are offered year-round, and the required health education courses are offered primarily during the summer term. A limited number of courses will be offered during the fall and spring terms and during the winter term on a rotating basis. Classes are offered in a variety of formats, including evenings, weekends, or blocked time periods. This schedule allows students to complete their degree in two or three years on a part-time basis. Full-time students may be able to complete the requirements in less time.

Students in the School Health Teacher certification program may be required to take additional coursework at the undergraduate level to meet certification standards and should plan to meet with their advisor. All students should meet with the health education program coordinator to review their transcripts and develop a program of study.

Courses in the health education program prepare students to take the CHES examination offered by the National Commission

for Health Education Credentialing. Successful achievement of this certification assures employers that the individual has met the national standards for health education professionals.

K-12 HEALTH EDUCATION CONCENTRATION

Students interested in obtaining New Hampshire Teacher Certification should select this concentration. New Hampshire shares reciprocity with a number of other states. Coursework provides preparation for the Certified Health Education Specialist (CHES) examination.

The MEd leads to certification to teach health education in grades K-12.

Required college-level coursework or equivalent competencies (audit, portfolio, or exam): exercise theory and programming, CPR, environmental issues in health and disease, first aid or CPR instructor course, drug behavior, sex and family living education, and anatomy and physiology with labs I and II.

Program of Study

REQUIRED COURSES	CREDITS
<i>Master's Core Component</i>	
ED 5000 Social Behavior in a Diverse Society	3
ED 5010 Philosophy, Ethics, and Education	3
ED 5030 Research Design	3
OR	
AT 5600 Research Design in Health Sciences	3

Learning Theory Component

ED 5270 Foundations of Teaching	3
ED 5060 Theories of Learning and Cognitive Development	3
ED 5570 Classroom Interventions and Special Education Strategies	3

Health Education Component

HP 5010 Introduction to Health Education and Health Promotion	3
HP 5020 Designing and Implementing Health Promotion Programs	3
HP 5030 Evaluation of Health Promotion Programs	3
HP 5090 Mind Body Techniques for Stress and Health	3
HP 5110 Wellness Concepts for Educators	2
HP 5200 Nutrition	1
HP 5210 Fitness Principles	1
HP 5220 Disease and the Environment	1
HP 5230 Substance Abuse	1
HP 5240 First Aid and CPR	1
HP 5250 Consumer Health	1
HP 5260 Mental Health and Sexuality	2

Capstone Experience

ED 5210 Graduate Practicum	6
OR	
ED 5960 Internship in Teacher Education	9
OR	
HL 5800 Practicum in Health Education	3

Total for MEd in Health Education, K-12 Health Education Concentration **43-49**

HEALTH PROMOTION CONCENTRATION

Students interested in community, clinical, and corporate health promotion should choose this concentration. Coursework also provides preparation for the Certified Health Education Specialist (CHES) examination.

Program of Study

REQUIRED COURSES	CREDITS
<i>Master's Core Component</i>	
ED 5000 Social Behavior in a Diverse Society	3
ED 5010 Philosophy, Ethics, and Education	3
ED 5030 Research Design	3
OR	
AT 5600 Research Design in Health Sciences	3
<i>Health Education Component</i>	
HP 5010 Introduction to Health Education and Health Promotion	3
HP 5020 Designing and Implementing Health Promotion Programs	3
HP 5030 Evaluation of Health Promotion Programs	3
HP 5090 Mind Body Techniques for Stress & Health	3
HP 5070 Community Health Promotion	3
HP 5200 Nutrition	1
HP 5210 Fitness Principles	1
HP 5220 Disease and the Environment	1
HP 5230 Substance Abuse	1
HP 5240 First Aid and CPR	1
HP 5250 Consumer Health	1
HP 5260 Mental Health and Sexuality	2

Management Component

HH 5700 Creating Organizational Health	3
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Electives **2-3**

Electives or continuing education courses for health educators: These courses are offered periodically on a two- or three-year rotation and can be taken by any student qualified for graduate coursework.

HP 5090 Mind Body Techniques for Stress and Health	3
HP 5120 Issues in Sexuality Education	3
HL 5910 Independent Study Health Education	1-3
HH 5560 Topics in Alternative Health and Healing	3

HH 5570	Mindfulness Meditation: Theory and Practice	3
HL 5560	Special Topics in Health Education	1–3
HL 5160	Eating Disorder Awareness & Prevention	3

Capstone Experience

HL 5750	Individual Research: Health Education	3
	OR	
HL 5800	Practicum in Health Education	3

**Total for MEd in Health Education,
Health Promotion Concentration** **40–41**

GRADUATE CERTIFICATES

EATING DISORDERS INSTITUTE CERTIFICATE

Director: Margaret Burckes-Miller, EdD
(603) 535-2515, e-mail: margaret@plymouth.edu

The Eating Disorders Institute is designed to provide knowledge and skills to a wide range of professionals seeking to further their expertise in the area of eating disorders. All health care professionals, mental health professionals, and educators (i.e., counselors, psychologists, dieticians, nurses, physicians, and dentists) who work with students and clients will benefit from this program. The institute may be incorporated into a Self-Designed MEd in Health Education or Counselor Education degree. The program is also offered as a 15-credit graduate certificate for students who have completed a baccalaureate degree.

Program of Study

REQUIRED COURSES	CREDITS
CO/HL 5160 Eating Disorders: Awareness, Prevention, and Education	3
CO/HL 5190 Medical and Physiological Aspects of Eating Disorders	3
CO/HL 5180 Nutrition: Education and Counseling	3
CO/HL 5170 Treatment Modalities for Eating Disorders	3
CO/HL 5150 Eating Disorders Clinical	1–3

Total for Eating Disorders Institute Certificate **15**

EXPERIENTIAL EDUCATION CERTIFICATES IN CONJUNCTION WITH HIGH 5 ADVENTURE LEARNING CENTER

Advisor: Jamie Hannon, MS
(603) 535-2513, e-mail: jhannon@plymouth.edu

High 5 Adventure Learning Center is a nonprofit educational organization focused on helping educators use experiential education as an effective tool for improving the way schools, communities, and organizations live, learn, and work together. Experiential education is a philosophy and approach that empowers learners to become actively involved in their learning,

bringing to it a sense of ownership and enjoyment. This approach has proven successful in creating positive change in students, schools, and communities.

High 5 is staffed by well-known and respected practitioners in the adventure learning field who have specialized knowledge and experience in school community-building and climate change, challenge course program development, and group facilitation skills.

ADVENTURES IN LEARNING: EXPERIENTIAL CLASSROOM CERTIFICATE

Program of Study

REQUIRED COURSES	CREDITS
ED 5060 Theories of Learning and Cognitive Development	3
EE 5160 The Experiential Learning Cycle	2
EE 5150 Experiential Group Facilitation: Beyond Basics	2
EE 5140 Experiential Education and Differentiated Instruction	2
EE 5130 Building Your Repertoire	2
EE 5910 Independent Study	1–3

Electives

EE 5170 Introduction to Low Challenge Course Elements	2
ED 6900 Graduate Capstone Project	1–3

Minimum Total for Adventures in Learning Certificate **12**

CHALLENGE COURSE PROGRAM DEVELOPMENT CERTIFICATE

Program of Study

REQUIRED COURSES	CREDITS
EE 5110 Adventure Basics	3
EE 5150 Experiential Group Facilitation: Beyond Basics	2
EE 5120 Advanced Technical Challenge Course Skills Beyond Basics	2
EE 5180 Managing an Adventure Program	2
EE 5130 Building Your Repertoire	2
ED 6900 Graduate Capstone Project	1–3

Electives

EE 5910 Independent Study	1–3
EE 5170 Introduction to Low Challenge Course Elements	2
EE 5160 The Experiential Learning Cycle	2

Minimum Total for Challenge Course Program Development Certificate **12**

OATH CERTIFICATE: ORGANIZATIONAL APPROACHES TO TRANSFORMATION AND HEALING

Director: Nancy Puglisi, PhD
(603) 862-0929, e-mail: nancy.puglisi@usnh.edu

OATH (Organizational Approaches to Transformation and Healing) is a 12-credit graduate certificate program directed by the PATH Institute at PSU. The program challenges traditional models and examines the implications of emerging paradigms for organizational health. Students will explore ways to transform the work environment through the integration of holistic approaches to leadership, interpersonal relationships, social responsibility, and self-reflection. Emphasis will be placed on cultivating the qualities of a compassionate heart, an open mind, and good intention. Through an examination of personal, organizational, and global contexts, students will develop as agents of change in work environments.

The OATH courses can be applied toward a Self-Designed MEd in Health Education or Counselor Education degree.

Program of Study

REQUIRED COURSES	CREDITS
HH 5700 Creating Organizational Health	3
OH 5200 Social Justice at Work	3
OH 5300 Work as a Personal Journey	3
HH 5820 Women as Leaders	3
OR	
OH 5100 Full Spectrum Leadership	3
Total for OATH Certificate	12

PATH INSTITUTE: PERSONAL APPROACHES TO TRANSFORMATION AND HEALING

Director: Nancy Puglisi, PhD
(603) 862-0929, e-mail: nancy.puglisi@usnh.edu

The PATH (Personal Approaches to Transformation and Healing) Institute provides experiential, academic opportunities to study integrative health and healing concepts. Based on the growing awareness of mind, body, and spirit interactions in holistic healing and wellness, this program builds on the movement that influenced Congress in 1992 to establish what is now the Center for Complementary and Alternative Medicine within the National Institutes of Health.

The PATH Institute is an 18-credit graduate certificate program that focuses on alternative health and healing modalities. PATH Institute credits may be applied to various MEd programs in health, counseling, and self-designed degree options.

In three-day residential seminars, the PATH Institute allows students to examine concepts of health that consider the whole

person—physical, environmental, emotional, mental, social, and spiritual; investigate the difference between healing and curing, and the interface of alternative and conventional approaches to health and healing; learn in a safe and healing environment surrounded by the natural world and supported by health-promoting activities; participate in the dynamic exchange of student perspectives; and collaborate on individual and small group exercises and projects.

This instructional model invites strong interactive relationships between students and faculty, and encourages deep personal reflection and learning. Students will prepare before class sessions and complete individual assignments during and after the residential weekends.

Program of Study

REQUIRED COURSES	CREDITS
HH 5560 Topics in Alternative Health and Healing	3
HH 5570 Mindfulness Meditation: Theory and Practice	3
HH 5620 Spiritual Health	3
HH 5590 Transpersonal Psychology	3
HH 5600 Body Centered Therapies	3
HH 5610 The Circle of Life	3

Total for PATH Institute Certificate 18

Total for MEd in Health Education, PATH Institute 33

MEd in Heritage Studies

Program Coordinator: Stacey Yap, PhD
(603) 535-2333, e-mail: stacey@plymouth.edu

Heritage Studies is an interdisciplinary study of the past to understand the present. The MEd in Heritage Studies degree program employs place-based heritage models that may be used to conduct a critical evaluation of the past anywhere on the globe. Using the methods of historians, geographers, archaeologists, anthropologists, architects, sociologists, folklorists, and other social scientists, heritage studies students explore the many layers of the past that make the present. Students create a course of study that will aid them in their future endeavors. With their advisor, students design a program of study that focuses on developing heritage models using New Hampshire and New England or global cultures.

Social Studies teacher certification for grades 5–12 is also available with additional coursework and practicum experience.

5–12 SOCIAL STUDIES EDUCATION CONCENTRATION

Program Coordinator: Stacey Yap, PhD
(603) 535-2333, e-mail: stacey@plymouth.edu

The MEd leads to certification to teach social studies in grades 5–12.

This certification requires the completion of upper-level coursework in U.S. history, local history, non-Western history, physical geography, thematic and regional geography, local government, U.S. government, economics, and at least one behavioral science course.

Program of Study

REQUIRED COURSES		CREDITS
Master's Core Component		
ED 5000	Social Behavior in a Diverse Society	3
	OR	
ED 5005	Social Psychology and Mythology across Cultures	3
ED 5010	Philosophy, Ethics, and Education	3
ED 5030	Research Design	3

Learning Theory Requirements (if not met in undergraduate work)

ED 5270	Foundations of Teaching	3
ED 5060	Theories of Learning and Cognitive Development	3
ED 5080	Instructional Strategies and Curriculum Design	3
ED 5570	Classroom Interventions and Special Education Strategies	3
ED 6100	Curriculum Integration and Performance-Based Assessment	3
	OR	
ED 5140	Assessment Principles and Practices	3
HS 5100	Heritage Studies Foundations (SS Methods)	3

Social Studies Content Component **6**
 Students must complete a minimum of six PSU graduate credits in history, heritage studies, anthropology, geography, or political science, depending on the student's undergraduate preparation.

Additional credits in this discipline may be necessary for certification. The equivalent of a 30-credit undergraduate major in history or social studies is required to meet content standards. New Hampshire requires the Praxis II for educator certification.

Capstone Component

ED 5960	Internship in Teacher Education	9
	OR	
ED 5210	Graduate Practicum (if employed)	6

Total for MEd in Heritage Studies, 5–12 Social Studies Education Concentration **39–42**

HISTORIC PRESERVATION CONCENTRATION

Program Coordinator: Stacey Yap, PhD
 (603) 535-2333, e-mail: stacey@plymouth.edu

The Historic Preservation concentration provides students with a fundamental understanding of historic preservation issues and opportunities that promote the protection of historic and cultural resources. The program prepares individuals with strong organizational, practical, and administrative skills useful for careers in historic preservation, heritage tourism, or heritage resource management.

Program of Study

REQUIRED COURSES		CREDITS
Master's Core Component		
ED 5000	Social Behavior in a Diverse Society	3
	OR	
ED 5005	Social Psychology and Mythology across Cultures	3
ED 5010	Philosophy, Ethics, and Education	3
ED 5030	Research Design	3

Required Courses

HPR 5100	Principles of Historic Preservation	3
	OR	
HS 5100	Heritage Studies Foundations	3
HPR 5200	The Rural Cultural Environment: Architecture and Landscape	3
	OR	
HI 5330	NH and New England Historical Sites	4

Historic Preservation Component

HPR 5300	Historical Preservation Methods and Documentation	3
HPR 5400	Preservation Planning and Management	3
HPR 5500	Cultural Property Law	3
HPR 5600	Archaeological Methods	3
HPR 5700	Sustainability and Historic Preservation	3

Approved Electives **3-9**

Capstone Component

HS 5710	Internship in Heritage Studies	1–4
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Total for MEd in Heritage Studies, Historic Preservation Concentration **33**

SELF-DESIGNED CONCENTRATION

Program Coordinator: Stacey Yap, PhD
 (603) 535-2333, e-mail: stacey@plymouth.edu

In PSU's Heritage Studies degree program, students explore

the interrelationship of history, literature, geography, culture, and the environment. Using the methods of historians, geographers, archaeologists, anthropologists, architects, sociologists, folklorists and other social scientists, heritage studies students explore the many layers of the past that help create the present. Successful graduates obtain careers in public, private, and museum education; archaeology; and historical research. Designed for maximum flexibility, Heritage Studies focuses on meeting the graduate student's professional and personal interests.

Program of Study

REQUIRED COURSES		CREDITS
Master's Core Component		
ED 5000	Social Behavior in a Diverse Society	3
	OR	
ED 5005	Social Psychology and Mythology across Cultures	3
ED 5010	Philosophy, Ethics, and Education	3
ED 5030	Research Design	3

Professional Component

HS 5100	Heritage Studies: Foundations	3
HS 5200	World Heritage Studies	3

Elective Component

Together with their advisor, students will choose 13–15 credits from the following areas: heritage studies, anthropology, English, geography, history, political science, natural science, and sociology.

HS 5560	Topics in Heritage Studies	3
AN 5410	Native Americans: Past and Present	3
AN 5140	Special Topics in Anthropology	3
AN 5910	Independent Study in Anthropology	1–3
HS 5620	Archaeological Field Methods: Prehistory	2–9
HS 5630	Archaeological Field Methods: Historical	2–9
HS 5650	Archaeological Field Methods: Prehistoric Materials Analysis	2–9
EN 5910	Independent Study in English	1–3
EN 5XXX	An approved English topic course	3
GE 5150	Topics in Geography	3
GE 5910	Independent Study in Geography	1–3
HI 5300	New Hampshire and New England History	3
HI 5330	New Hampshire and New England Historical Sites	4
HI 5800	Topics in History	3
HI 5910	Independent Study in History	1–3
PO 5130	Topics in Political Science	3
PO 5910	Independent Study in Political Science	1–3
NS 5100	Revolutions in Science	3
SO 5140	Topics in Sociology	3
SO 5910	Independent Study in Sociology	1–3

Capstone Component

HS 5710	Internship in Heritage Studies	3–4
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Total for MEd in Heritage Studies, Self-Designed Concentration **33**

GRADUATE CERTIFICATE

HISTORIC PRESERVATION GRADUATE CERTIFICATE
 Program Coordinator: Stacey Yap, PhD
 (603) 535-2333, e-mail: stacey@plymouth.edu

Program of Study

REQUIRED COURSES		CREDITS
HPR 5100	Principles of Historic Preservation	3
	OR	
HS 5100	Heritage Studies Foundations	3
HPR 5200	The Rural Cultural Environment: Architecture and Landscape	3
	OR	
HI 5330	NH and New England Historical Sites	4

Elective Component (Choose two)

HPR 5300	Historical Preservation Methods and Documentation	3
HPR 5400	Preservation Planning and Management	3
HPR 5500	Cultural Property Law	3
HPR 5600	Archaeological Methods	3
HPR 5700	Sustainability and Historic Preservation	3

Total for Historic Preservation Certificate **12**

MEd Integrated Arts Programs

Program Coordinator: Patricia Lindberg, PhD
 (603) 535-2647, e-mail: plindber@plymouth.edu

The Integrated Arts programs are designed for students who want to enhance their professional development by incorporating the arts into educational, cultural, human services, and recreational settings. Students will elect a degree in elementary or secondary education. Integrated Arts program graduates are typically classroom teachers, visual and performing artists, and arts or resource or media specialists employed in schools, museums, libraries, hospitals, and other educational and cultural institutions. In addition to gaining general MEd competencies, students will develop a specialization in the integration of the arts through a series of workshop and practicum experiences with professionals in the field, including opportunities for international study.

This concentration is designed to reflect changes in the National Standards for Arts Education and the New Hampshire Arts Frameworks. The integrated arts programs highlight the power of the arts in education by offering the following:

- Opportunities for international study in England, Ireland, South Africa, the Baltics, Russia, and New Zealand
- Arts in Education institutes
- Integrated arts conferences
- Flexible scheduling of classes in a variety of settings
- Opportunities for participating in the award-winning Educational Theatre Collaborative, the Kearsarge Arts Theatre for Children, and Theater Integrating Guidance Education and Responsibility (TIGER)
- State-of-the-art facilities, including the Silver Center for the Arts and the Draper & Maynard building

The Integrated Arts programs address the following knowledge base tenets: knowledge of current standards of professional practice in the arts; the ability to express an aesthetic concept through a multiplicity of symbol systems; an understanding of the importance of the arts to human experience; an understanding of the interactive dynamics of the arts in creation and reflection of culture; an understanding of the historical perspectives and consciousness as it relates to the arts; the ability to act as an advocate for the arts; knowledge of curriculum development as it relates to the process of creative and critical thinking; knowledge of current trends and standards of practice in technology in the arts; the skills necessary to plan, implement, and manage an integrated arts project within a given setting; and an understanding of the consultant and supervisory skills necessary to effect programmatic and instructional change for the integration of the arts in various settings.

Curriculum

The Integrated Arts programs curricula are built around a professional core of courses designed to provide a foundation and framework in research, philosophy, and learning theories. The integrative component builds upon that foundation with a course sequence that explores the value and implications of the arts in society, as well as the arts integration process itself. Elective coursework enables participants to be introduced to new artistic disciplines, as well as to expand their areas of expertise and knowledge. A capstone experience provides an opportunity to demonstrate arts integration in a supervised professional or educational setting.

Students can participate in a variety of coursework tailored to their individual goals, including completing special arts integration projects in their schools and classrooms. Summer Arts and Culture Institutes in a variety of international locations, as well as the Arts in Education Summer Institute, provide innovative opportunities to focus on diversity, equity, and excellence through the arts.

Program of Study

REQUIRED COURSES CREDITS

Master’s Core Component

ED 5000	Social Behavior in a Diverse Society	3
	OR	
ED 5005	Social Psychology and Mythology across Cultures	3
ED 5010	Philosophy, Ethics, and Education	3
ED 5030	Research Design	3
	OR	
ED 5180	Collaborative Action Research	3

Learning Theory Component

ED 5060	Theories of Learning and Cognitive Development	3
AE 5700	Curriculum Development and Assessment in the Arts	3

Integration Component

AR 5300	The Arts in Society	3
IN 5970	Integrated Arts	3
ME 5500	Survey of Arts Projects, Programs and Technologies	3

Electives (Elementary or Secondary Education focus) 9

Students will select from a variety of arts electives that are offered on a rotating basis. Students self-select courses based on interest and individual needs.

Capstone Experience

IN 5210	Graduate Practicum in Integrated Arts (45 contact hours per credit)	3
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Total for MEd in Elementary or Secondary Education, Integrated Arts Concentration 36

MEd in K–12 Education

COMPUTER TECHNOLOGY EDUCATOR CERTIFICATION

Program Coordinator: Ethel Gaides, EdD
(603) 535-2737, e-mail: e_gaides@plymouth.edu

NCATE and other professional organizations across the country have repeatedly emphasized the importance of technology in the classroom for both educators and students. As a result, the New Hampshire Department of Education has created standards for technology educator certification. The MEd in K–12 Education, Computer Technology Education concentration prepares educators to use computers and related technologies to improve their ability to integrate technology into their curriculum and classroom, while simultaneously enhancing the educator’s professional growth and productivity. This concentration

is designed around International Society for Technology in Education (ISTE) basic competency standards in educational computing and technology literacy, as well as the competencies for New Hampshire certification for Technology Educator.

Program of Study

REQUIRED COURSES	CREDITS
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Master's Core Component

ED 5000	Social Behavior in a Diverse Society	3
	OR	
ED 5005	Social Psychology and Mythology across Cultures	3
ED 5010	Philosophy, Ethics, and Education	3
ED 5030	Research Design	3

Education Component

ED 5060	Theories of Learning and Cognitive Development	3
ED 5270	Foundations of Teaching	3
ED 5570	Classroom Intervention and Special Education Strategies	3

Specialization Component

CE 5540	Computers, Curriculum, and Change	3
CE 5290	Managing Technology in an Educational Environment	3
CE 5120	The Integration of Technology in the K–12 Curriculum	3
CE 5150	Making Multimedia Meaningful	3
CE 5180	Information Technology: Designing and Implementing Network Technology	3
	OR	
CE 5160	Teaching and Learning in a Networked Classroom	3
CE 5700	Leadership in Educational Technology	3

Capstone Experience

CE 5800	Practicum in Educational Computing	3
	OR	
ED 5960	Internship in Teacher Education	9

Total for MEd in K–12 Education, Computer Technology Educator Certification **39–50**

FRENCH EDUCATION CERTIFICATION

Program Coordinator: Barbara Lopez-Mayhew, PhD
(603) 535-2834, e-mail: blopezmayhew@plymouth.edu

The MEd degree with certification to teach French in grades K–12 brings students up to date on the latest practices, programs, and changes in education laws, and qualifies recipients to teach French at the K–12 level in New Hampshire and throughout

the United States. The program is ideal for anyone with a baccalaureate degree who would like to teach French at the elementary and secondary level, including those with baccalaureate degrees in French who would like to obtain their teaching certification; teachers already certified in another foreign language or another subject; and native French speakers with a college degree who would like to teach French.

Applicants should demonstrate the following college-level coursework or equivalent competencies (by audit, portfolio, or exam): completion of four upper-division major courses in French (French history and civilization, French culture and conversation, advanced French, French grammar and composition), intensive and extensive advanced readings in French, completion or equivalent of at least six advanced French literature courses, intensive immersion experience at the advanced level (i.e., semester abroad, residence in the country or community of the target language), and K–12 foreign language methods.

Program of Study

REQUIRED COURSES	CREDITS
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Master's Core Component

ED 5000	Social Behavior in a Diverse Society	3
	OR	
LL 5005	Foundations of TESOL Methodology	3
ED 5010	Philosophy, Ethics, and Education	3
ED 5030	Research Design	3

Learning Theory Requirements (if not met in undergraduate work)

ED 5270	Foundations of Teaching	3
LL 5170	Foreign Language Methodology K–12	3
ED 5060	Theories of Learning and Cognitive Development	3
ED 6100	Curriculum Integration and Performance-Based Assessment	3
	OR	
ED 5140	Assessment Principles and Practices	3
ED 5080	Instructional Strategies and Curriculum Design	3
ED 5570	Classroom Interventions and Special Education Strategies	3

French Content Courses

In this content major, a minimum of six PSU graduate credits is required. Additional credits in this discipline may be necessary for certification.

Capstone Experience

ED 5960	Internship in Teacher Education	9
	OR	
ED 5210	Graduate Practicum	6

LIBRARY MEDIA SPECIALIST CERTIFICATION

Program Coordinator: Elaine Allard, MLIS
(603) 535-2458, e-mail: eallard@plymouth.edu

No Child Left Behind legislation requires all educators to be highly qualified in their fields, including library media specialists. Library media specialists are considered a critical shortage area in the state of New Hampshire. The College of Graduate Studies offers the only comprehensive program in New Hampshire for individuals interested in working in a school library setting or wanting to renew their New Hampshire state certification.

According to ED 507.21 Library Media Specialist requirements, candidates must possess a baccalaureate degree and complete a combination of academic and supervised practical experiences addressing the following areas: administration; ethical, legal, and responsible use of information; collection development; teaching and learning; and literature.

Candidates may obtain certification by completing the five classes in the library media specialist component and a graduate capstone experience.

Program of Study

REQUIRED COURSES CREDITS

Master’s Core Component

ED 5000	Social Behavior in a Diverse Society	3
	OR	
ED 5005	Social Psychology and Mythology across Cultures	3
ED 5010	Philosophy, Ethics, and Education	3
ED 5030	Research Design	3

Library Media Specialist Component

LM 5020	Cataloging and Classification	3
RL 5300	Advanced Children’s/Young Adult Literature	3
LM 5040	Instructional Materials Production and Use	3
LM 5010	Learning Resources Centers and Services	3
LM 5030	Reference and Research	3

Electives 6

Capstone Experience

LM 5210	Practicum in School Media	3
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**Total for MEd in K–12 Education,
Library Media Specialist Certification** 33

SPANISH EDUCATION CERTIFICATION

Program Coordinator: Barbara Lopez-Mayhew, PhD
(603) 535-2834, e-mail: blopezmayhew@plymouth.edu

The MEd degree with certification to teach Spanish in grades K–12 brings students up to date on the latest practices, programs, and changes in education laws, and qualifies recipients to teach Spanish at the K–12 level in New Hampshire and throughout the United States. The program is ideal for anyone with a baccalaureate degree who would like to teach Spanish at the elementary and secondary level, including those with baccalaureate degrees in Spanish who would like to obtain their teaching certification; teachers already certified in another foreign language or another subject; and native Spanish speakers with a college degree who would like to teach Spanish.

Applicants should demonstrate college-level coursework or equivalent competencies (by audit, portfolio, or exam): completion of five upper-division major courses in Spanish (Spanish history, culture, and civilization; Spanish-American history, culture, and civilization; and Spanish conversation, advanced Spanish, and Spanish grammar and composition), intensive and extensive advanced readings in Spanish, completion or equivalent of at least six advanced Spanish literature courses, intensive immersion experience at the advanced level (i.e., semester abroad, residence in the country or community of the target language), and K–12 foreign language methods.

Program of Study

REQUIRED COURSES CREDITS

Master’s Core Component

ED 5000	Social Behavior in a Diverse Society	3
	OR	
LL 5005	Foundations of TESOL Methodology	3
ED 5010	Philosophy, Ethics, and Education	3
ED 5030	Research Design	3

Learning Theory Requirements (if not met in undergraduate work)

ED 5270	Foundations of Teaching	3
LL 5170	Foreign Language Methodology K–12	3
ED 5060	Theories of Learning and Cognitive Development	3
ED 6100	Curriculum Integration and Performance-Based Assessment	3
	OR	
ED 5140	Assessment Principles and Practices	3
ED 5080	Instructional Strategies and Curriculum Design	3
ED 5570	Classroom Interventions and Special Education Strategies	3

Spanish Content Component

In this content major, a minimum of six PSU graduate credits is required. Additional credits in this discipline may be necessary for certification.

Capstone Experience

ED 5960	Internship in Teacher Education	9
	OR	
ED 5210	Graduate Practicum	6

**Total for MEd in K–12 Education,
Spanish Education Certification** 36–42

GENERAL SPECIAL EDUCATION CERTIFICATION

Program Coordinator: Marcel Lebrun, PhD
(603) 535-2288, e-mail: mrlebrun@plymouth.edu

Courses in special education address competencies in such areas as classroom management, survey of exceptionalities, human development, foundations, assessment, and teaching strategies.

Program of Study

REQUIRED COURSES CREDITS

Master's Core Component

ED 5000	Social Behavior in a Diverse Society	3
ED 5010	Philosophy, Ethics, and Education	3
	OR	
SE 5765	Working with Families and Children: Legal and Ethical Issues	3
ED 5030	Research Design	3

Learning Theory Core Component

ED 5270	Foundations of Teaching	3
	OR	
SE 5600	Language and Learning Disabilities	3
ED 5060	Theories of Learning and Cognitive Development	3
ED 5570	Classroom Intervention and Special Education Strategies	3

Specialization Component

SE 5300	Special Education Law	3
SE 6040	Curriculum Development in Special Education	3
SE 5770	Behavioral Disorders in School-Aged Children	3
SE 5190	Educational Testing	3
	OR	
RL 5710	Advanced Diagnostic Testing and the Improvement of Reading and Writing	3
SE 5760	Collaboration, Consultation, and Leadership in Special Education	3

Capstone Experience

SE 5800	Practicum in Special Education	3
	OR	
ED 5960	Internship in Teacher Education	9

**Total for K–12 Education, General Special
Education Concentration** 36–41

SPECIAL EDUCATION FIFTH-YEAR CONCENTRATION

Program Coordinator: Marcel Lebrun, PhD
(603) 535-2288, e-mail: mrlebrun@plymouth.edu

The fifth-year special education program is designed for the K–3, K–8, K–12, 5–12, or 7–12 teacher certification candidate who plans to pursue a career as an entry-level special education teacher of students with exceptionalities in individualized general curriculums. Students in this full-time program have completed their undergraduate degree in a teacher certification program and have not yet begun their teaching career. This degree program is aligned with the Council of Exceptional Children standards.

Program Requirements

The candidate must have successfully completed an undergraduate degree in K–3, K–8, K–12, 5–12, or 7–12 teacher certification.

The candidate must successfully complete an interview with the special education program coordinator in addition to meeting graduate admissions requirements. Application materials must be received by April 15 of the admitting year with courses to begin in July.

Required Courses

Courses in this program are designed in scope and sequence to allow candidates to apply course concepts in school settings, to collaborate with professionals in the field, and to collaborate within the cohort model. The cohort groups will be formed at the onset of the program and will be monitored by the special education program coordinator. Students entering the program must meet the following prerequisites: courses in human development, diversity, general exceptionalities, classroom applications in special education, philosophy, and literacy.

Program of Study

COURSES		CREDITS
SE 5765	Working with Families and Children: Legal and Ethical Issues	3
SE 5600	Language and Learning Disabilities	3
SE 5300	Special Education Law	3
SE 6040	Curriculum Development in Special Education	3
SE 5770	Behavioral Disorders in School-Aged Children	3
SE 5190	Educational Testing	3
RL 5710	Advanced Diagnostic Testing and the	3

	Improvement of Reading and Writing		
SE 5760	Collaboration, Consultation, and Leadership in Special Education	3	
SE 5581	Technology for Diverse Learners	3	
SE 5570	Autism and Spectrum Disorders	3	
ED 5180	Collaborative Action Research	3	
SE 5821	Internship Seminar	9	
Total for MEd in K–12 Education, Special Education Concentration (Fifth-Year Program)			42

K–12 TESOL EDUCATION CONCENTRATION (TEACHING ENGLISH TO SPEAKERS OF OTHER LANGUAGES)

Program Coordinator: James Whiting, PhD
(603) 535-2304, e-mail: jcwhiting@plymouth.edu

The MEd with a concentration in TESOL (Teaching English to Speakers of Other Languages) prepares students to teach English language learners of all ages and abilities in the United States and overseas.

Students who complete the program meet the requirements for the New Hampshire Department of Education license to teach K-12 English language learners.

The program’s focus is experiential and hands-on, with the emphasis on the application of what is learned in classes to the world at large. The program’s classes blend theory and practice, and provide a complete foundation in language teaching methodologies, language assessment, literacy, language acquisition, and linguistics for language teachers. The goal is to promote alternative practices while training language teachers who foreground progressive, student-centered, communicative language classrooms that value students’ native languages and cultures.

The program’s 10 classes are offered throughout the year in online and blended (online and in-person) formats, and can be completed in four terms or one year. Student may also take classes on a part-time basis. In-person and blended classes are offered in the evenings and on weekends.

Program of Study

REQUIRED COURSES	CREDITS
Master’s Core Component	
LL 5009 Intercultural Communication in Multicultural Classrooms	3
ED 5010 Philosophy, Ethics, and Education	3
ED 5030 Research Design	3
ESOL Component	
LL 5004 Language and Linguistics	3
LL 5003 Language Acquisition	3

LL 5005	Foundations of TESOL Methodology	3
LL 5006	Language Evaluation and Assessment	3
LL 5007	ESOL Literacy	3
ED 5570	Classroom Interventions and Special Education Strategies	3
LL 5008	Language Teaching Methodology	3

Capstone Experience

LL 5010	Practicum in TESOL	6
OR		
ED 5960	Internship in Teacher Education	9

Total for MEd in K–12 Education, TESOL Education Concentration **33–36**

NEURODEVELOPMENTAL APPROACH TO TEACHING

Program Coordinator: Cheryl B. Baker, CAGS
(603) 535-2737, e-mail: cbaker@plymouth.edu

The College of Graduate Studies has partnered with the Center for School Success to create graduate programs focusing in the Neurodevelopmental Approach to Teaching—the only programs of their kind in the country. The Center for School Success (CSS) is a nonprofit organization that helps struggling students achieve measurable success in school and in life. Located in West Lebanon, NH, CSS is the only community-based, educational resource of its type in New Hampshire and Vermont.

Candidates seeking a graduate certificate, master’s degree, or CAGS with a concentration in the Neurodevelopmental Approach to Teaching will be able to use recent brain-based research to inform their teaching practice—in particular how to identify, respond to, and manage students with learning differences. Candidates will demonstrate an understanding of themselves as learners and how they can best capitalize on their own strengths, experiences, and expertise in order to become more effective teachers. Candidates will also use their understanding of the neurodevelopmental systems to provide specific instructional strategies to promote self-advocacy and school success. The Neurodevelopmental Approach to Teaching courses provide the essential tools and knowledge needed for sustained implementation.

The Neurodevelopmental Approach to Teaching rationale is based on research, best practices, and professional development standards outlined by PSU’s College of Graduate Studies, the Council for Exceptional Children (CEC), the National Staff Development Council (NSDC), and the National Council for Accreditation of Teacher Education (NCATE).

Program of Study

REQUIRED COURSES	CREDITS
Master's Core Component	
ED 5000 Social Behavior in a Diverse Society	3
OR	
LL 5005 Foundations of TESOL Methodology	3
ED 5010 Philosophy, Ethics, and Education	3
ED 5030 Research Design	3

Specialization Content Courses

ND 5000 Foundations of Neurodevelopmental Theory	2
ND 5010 Neurodevelopmental Effective Classroom Practice	2
ND 5020 Applying a Neurodevelopmental Approach to Instructional Practice	3
ND 5030 Collaborative Practices to Enhance Teaching and Learning	2
ND 5040 Authentic Data to Engage Students' Minds	2
ND 5050 Attention and Learning in Memory	2

Specialized Electives (choose one)

ND 5100 Reconsidering Referrals to Support Teams	3
ND 5110 New Coaches Institute—Critical Friends	3

Capstone Experience

ND 5800 Practicum in Neurodevelopmental Approach to Teaching	9
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Total for MEd in K–12 Education, Neurodevelopmental Approach to Teaching Concentration 34

NEURODEVELOPMENTAL APPROACH TO TEACHING CERTIFICATE

REQUIRED COURSES	CREDITS
ND 5000 Foundations of Neurodevelopmental Theory	2
ND 5010 Neurodevelopmental Effective Classroom Practice	2
ND 5020 Applying a Neurodevelopmental Approach to Instructional Practice	3
ND 5030 Collaborative Practices to Enhance Teaching and Learning	2
ND 5040 Authentic Data to Engage Students' Minds	2
ND 5050 Attention and Learning in Memory	2

Total for Neurodevelopmental Approach to Teaching Certificate 13

GRADUATE CERTIFICATES

ONLINE TEACHING AND LEARNING CERTIFICATE

Program Coordinator: Cheryl B. Baker, CAGS
(603) 535-2737, e-mail: cbaker@plymouth.edu

Plymouth State University's College of Graduate Studies has partnered with Virtual High School Global Consortium (VHS) to offer a 15-credit graduate certificate focused in Online Teaching and Learning. The certificate program meets the needs of teachers who are new to integrating technology into the classroom and those who want to incorporate cutting-edge technology. Additionally, the five-course certificate sequence may also be incorporated into a Self-Designed MEd degree.

All candidates earning a certificate in Online Teaching and Learning will be able to use the Internet in instruction efficiently and effectively to develop student-centered, project-based learning that supports the development of twenty-first century skills.

Program of Study

REQUIRED COURSES	CREDITS
CE 5310 21st Century Teaching and Learning	3
CE 5320 Web Enhanced Classroom	3
CE 5330 Online Extended Teaching	3
CE 5340 Web 2.0, Collaborative Instruction	3
CE 5350 Capstone: Becoming an Online Teacher	3

Total for Online Teaching and Learning Certificate 15

MENTORING IN EDUCATION CERTIFICATE

Program Coordinator: Cheryl B. Baker, CAGS
(603) 535-2737, e-mail: cbaker@plymouth.edu

The Mentoring in Education program addresses the professional development needs of teachers and administrators who wish to serve as mentors. A five-course sequence offered over 14 months provides a focus on best practices for adult learning, data-driven reflective conversations, formative assessment, and advocacy.

All participants must have a minimum of three years experience as a successful classroom educator. This certificate program can also be incorporated into a self-designed master's degree or Certificate of Advanced Graduate Studies.

Program of Study

REQUIRED COURSES	CREDITS
ED 5600 Leadership, Mentorship, and the Brain	3
ED 5610 Research-Based Teaching and Learning	3
ED 5620 Data and Collaborative Conversations	3
ED 5630 Mentor Roles and Responsibilities	3
ED 5640 Practicum in Mentoring	3

Total for Mentoring in Education Certificate 15

POSITIVE BEHAVIORAL INTERVENTIONS AND SUPPORT (PBIS)
CERTIFICATE

Program Coordinator: Marcel Lebrun, PhD
(603) 535-2288, e-mail: mrlebrun@plymouth.edu

The Positive Behavioral Interventions and Support (PBIS) graduate certificate is designed for teachers, para-educators, administrators, guidance counselors, psychologists and other school or community providers, and family members interested in increasing their understanding of the process of enhancing the emotional well-being of students through systemic, positive, prevention-focused, and data-based decision making in schools.

Program Requirements

- The candidate must hold a baccalaureate degree in education or a related field.
- The special education program coordinator must interview the candidate.
- The candidate must complete a minimum of 12 credits from the PBIS course list. Courses will be determined according to the student’s needs and must be approved by the program coordinator.
- The student must maintain a 3.0 grade point average or higher in the program.

Competencies

- Knowledge and application of positive behavioral interventions and supports designed to enhance the emotional well-being of all students in schools.
- Knowledge and application of universal, positive, and proactive school-wide approaches designed to enhance discipline practices and school climate, including:
 - developing skills in collaboration and consultation with colleagues and families;
 - developing and implementing school-wide expectations;
 - developing and implementing a behavior matrix of expectations across settings;
 - developing and implementing teaching scripts to address pro-social behaviors;
 - developing and implementing a school-wide reinforcement system;
 - determining office versus classroom referrals;
 - developing and implementing a database system for behavior;
 - evaluating the universal system using data-based decision making for improving practice.
- Knowledge and application of targeted approaches aimed at addressing the behavior of students for whom universal interventions are insufficient, including:

- developing skills in collaboration and consultation with colleagues and families;
- developing and implementing a process for addressing the behavior of students who are not experiencing success with universal interventions;
- completing functional behavioral assessments on targeted students;
- completing behavior intervention plans based on functional behavioral assessments;
- designing and implementing targeted group interventions aimed at reducing problem behavior and increasing pro-social behavior and academic achievement;
- evaluating the targeted system using data-based decision making for improving practice.
- Knowledge and application of intensive approaches aimed at addressing the behavior of students for whom targeted interventions are insufficient, including:
 - developing skills in collaboration and consultation with colleagues and families;
 - developing and implementing a process for addressing the behavior of students who are not experiencing success with universal and targeted interventions;
 - developing skills in wrap-around planning;
 - developing skills in interagency coordination;
 - evaluating the intensive system using data-based decision making for improving practice.

The PBIS courses are sequential and build upon one another; therefore, it is necessary to take the courses in the specified order.

Program of Study

REQUIRED COURSES	CREDITS
PBIS Courses	
SE 5563 PBIS: School-wide Approaches for All Students	3
SE 5566 PBIS: Targeted Approaches for Students at Risk	3
SE 5564 PBIS: Comprehensive Approaches for Students with Intense and Chronic Needs	3
SE 5568 PBIS: Facilitation Specialist as Coach and Resource Person	3
OR	
SE 5565 PBIS Summer Institute	3
Total for PBIS Certificate	12

Students who are part of a school that is implementing PBIS can register for PBIS: Advanced and receive graduate credits for the work that they are doing at the school level. Individuals not in a school presently practicing PBIS may sign up for the regular PBIS classes.

MEd in Mathematics Education (with 5–8 or 7–12 Certification)

Program Coordinator: William Roberts, EdD
(603) 535-2433, e-mail: wjr@plymouth.edu

The MEd in Mathematics Education degree offers two areas of concentration: 5–8 Mathematics Education and 7–12 Mathematics Education. Middle school teachers may select either program, as both are appropriate to that educational level. Both programs are designed to strengthen the mathematics and pedagogical background of the MEd candidate in the program. The program also seeks to raise students' awareness of current thinking in the field of mathematics education and in education in general.

The goals of the program are to have candidates deepen their own mathematical knowledge; have candidates broaden their teaching strategies and techniques; encourage candidates to consider their goals and broaden their professional background by completing selected professional education offerings; offer candidates an opportunity to complete coursework in an area not previously considered; and encourage candidates to complete courses pertinent to their teaching assignments.

Degree Requirements

1. Each candidate must either:
 - a. take a course in each of the three fields of algebra, geometry, and probability and statistics; or
 - b. show competency and recent involvement in each of those fields by having had a course within the last six years from time of acceptance into the program.
2. Candidates in the secondary mathematics program must either:
 - a. be certified in secondary mathematics education; or
 - b. be seeking secondary mathematics certification through the MEd program.

Additional credits may be required.
3. The individualized portion of the program may be selected from MG 3100 (courses lower than MG 3100 are not acceptable for graduate credit), MG 4000, and MG 5000 numbered courses in mathematics or from professional education courses. Students and their mathematics advisor will select courses and write a program of study that strengthens their undergraduate program, enriches their knowledge of mathematics and mathematics education, and improves their teaching ability. Graduate courses (5000 level) are offered in each field and should be included in programs.

Program of Study

REQUIRED COURSES	CREDITS
Master's Core Component	
ED 5000 Social Behavior in a Diverse Society	3
OR	

ED 5005 Social Psychology and Mythology across Cultures	3
ED 5010 Philosophy, Ethics, and Education	3
ED 5030 Research Design	3
ED 5XXX Graduate Elective	3

Learning Theory Requirements

MA 3080 Introduction to Math Education	2
OR	
ED 5270 Foundations of Teaching	3
MG 4020 Cultural and Psychological Aspects of Mathematics	3
OR	
ED 5060 Theories of Learning and Cognitive Development	3
CO 5430 Assessment and Consultation	3
OR	
RL 5710 Advanced Diagnostic Testing and the Improvement of Reading and Writing	3
OR	
ED 6100 Curriculum Integration and Performance-Based Assessment	3
OR	
ED 5140 Assessment Principles and Practices	3
ED 5570 Classroom Intervention and Special Education Strategies	3
MG 4030 Math in the Secondary and Middle School	3
OR	
ED 5080 Instructional Strategies and Curriculum Design	3

Elective 3

Capstone Experience

ED 5960 Internship in Teacher Education	9
OR	
ED 5210 Graduate Practicum	6

Minimum Total for MEd in Mathematics Education 33

Note: Additional credits may be needed for math competencies to obtain New Hampshire Educator Certification.

MEd in Music Education

The MEd in Music Education degree offers one concentration area: Instrumental Music Education.

INSTRUMENTAL MUSIC EDUCATION CONCENTRATION

Program Coordinator: Gary Corcoran, EdD
(603) 535-2495, e-mail: garyc@plymouth.edu

This program offers instrumental music educators an opportunity to address musical and academic issues pertaining to their

multifaceted responsibilities as band directors in the public schools. In addition to the core education component, students will be afforded flexibility in enhancing their professional development through their involvement with those topic areas that are based upon their professional interests, those that build upon their undergraduate training, or those that may reflect changes in music teaching methodologies since they last undertook formal study.

Program of Study

REQUIRED COURSES	CREDITS
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Master's Core Component

ED 5005	Social Psychology and Mythology across Cultures	3
ED 5010	Philosophy, Ethics, and Education	3
ED 5030	Research Design	3
ED 5060	Theories of Learning and Cognitive Development	3

Specialization Component

ME 5120	New England Band Directors Institute	3
ME 5560	Special Topics in Music Education	6
ME 5300	Technology for Music Educators	3
ME 5260	Instrumental Conducting and Repertoire	3

Capstone Experience

ME 5290	Practicum in Instrumental Music Education	6
	OR	
ED 5580	Individual Research in Education Project	6
	OR	
ED 5950	Graduate Thesis	6

Total for MEd in Music Education, Instrumental Music Education Concentration	33
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MEd in Reading and Writing Specialist

Program Coordinator: Edith Patridge, MEd
(603) 535-2636, e-mail: epatridge@plymouth.edu

The Reading and Writing Specialist program is based on a broad foundation of courses and experiences in a comprehensive and balanced approach to literacy learning and development. The program is aimed at helping K–12 classroom teachers, special educators, Title I personnel, literacy coaches, curriculum coordinators, adult literacy teachers, educators, and administrators provide the highest quality literacy instruction to all students in today's diverse classrooms. The program of study builds on candidates' preparation and experience in reading and writing while addressing standards from the International Reading Association and the NH Department of Education. This advanced specialist program requires that candidates be certified as a teacher and have a minimum of two years of teaching experience before

completion of the program.

The coursework emphasizes concepts based on the roles of the reading and writing specialist in the areas of instruction, assessment, and leadership. Reading and writing specialists provide service through many roles, including remedial teacher, co-teaching with the regular classroom teacher, professional development provider, literacy coach, Title I coordinator, and mentor. Newly graduated reading and writing professionals in this program will have the opportunity to develop the competencies in providing leadership for school-, district-, and state-level literacy programs, assessing and evaluating reading achievement and literacy programs, and communicating information about literacy to staff, administration, parents, and the community.

Candidates will demonstrate knowledge and skills in five categories of standards outlined by the International Reading Association, including foundational knowledge; instructional practices and materials; assessment, diagnosis, and evaluation; literate environment; and professional development.

Program of Study

REQUIRED COURSES	CREDITS
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Master's Core Component

ED 5010	Philosophy, Ethics, and Education	3
ED 5000	Social Behavior in a Diverse Society*	3

Reading and Writing Component

RL 5110	Research in Reading and Writing	3
ED 5060	Theories of Learning and Cognitive Development	3
	OR	
ND 5000	Foundations of Neurodevelopmental Theory	3
RL 5770	Developing Language and Literacy for Diverse Learners	3
RL 5170	Content Area Literacy	3
RL 5014	Reading, Writing, and Literature	3
RL 5710	Advanced Diagnostic Testing and the Improvement of Reading and Writing	3
CE 5120	Integration of Technology in the K-12 Curriculum	3
	OR	
CE 5150	Making Multimedia Meaningful	3
LL 5004	Language and Linguistics**	3

Capstone Experience

RL 5830	Practicum in Reading Diagnosis and Remedial Reading	3
RL 5820	Literacy Practicum	3

* Approved substitutions: IN 5970 Integrating the Arts, OH 5200 Social Justice at Work, ED 5005 Social Psychology

and Mythology, HH 5700 Creating Organizational Health, OH 5100 Full Spectrum Leadership, or OH 5300 Work as a Personal Journey.

** Approved substitutions: LL 5005 Foundations of TESOL Methodology, LL 5007 ESOL Literacy, or NHEON LT-05, or LT-06, or LT-07.

Total for MEd in Reading and Writing Specialist 36

EDUCATOR AND SPECIALIST CERTIFICATION PROGRAMS

PSU offers certification in the areas of K–8, secondary (5–12 or 7–12), and K–12 through the educator certification program. A state-aligned curriculum is followed, and courses may require day, evening, and summer study. Students typically complete certification requirements over a two- or three-year period, depending on their undergraduate degree background. Students exploring teacher certification take ED 5270 Foundations of Teaching as the first course in the program. This course serves as the screening course for candidacy. A number of courses require students to document observation and participation in the public schools. Throughout the professional courses, students are typically required to work in various school settings to apply theory to practice. PSU's graduate professional preparation programs are approved by the New Hampshire Department of Education and accredited by the National Council for Accreditation of Teacher Education (NCATE). The University is also a member of the American Association of Colleges for Teacher Education (AACTE).

Students desiring teaching certification are assigned advisors from the College of Graduate Studies as well as from their content area, if applicable. Students should meet with their advisors on a regular basis to review progress toward their requirements. A program of study, which may consist of undergraduate as well as graduate courses, will be outlined with the student. Students with degrees in areas other than education will be required to take additional courses to meet certification competencies. Candidates must meet general education as well as professional education competencies as described by the state of New Hampshire.

Educator Certification Policies

For candidates who do not possess a master's degree, acceptance into the educator certification program requires the submission of passing scores on the PRAXIS I basic skills test in reading, writing, and mathematics. The NH Board of Education determines passing scores. Additional testing for content area teachers (PRAXIS II) is required for New Hampshire certification as well.

To enter into the educator certification program, students must file an application for admission, which includes a statement of interests and intent; submit a program of study for completion of certification requirements; have a cumulative 3.0 GPA; and submit faculty references. In addition, students must file an Intent to Complete Internship or Practicum form with the College of Graduate Studies one term prior to the anticipated term of the internship. The criteria for admission and monitoring throughout the student's educator certification program will focus on academic achievement and dispositions. Continual assessment of a student's specific strengths and weaknesses in these areas will be used to determine continuation in, or removal from, the teacher certification program and the readiness to enter the profession. (See the New Hampshire Department of Education regulations, Ed 604 Admission, Retention, and Evaluation Policies and Practices in Standards and Procedures for Approving Professional Preparation Programs in New Hampshire)

Education conversion program candidates must hold a baccalaureate degree in order to qualify for full admission. A minimum of six credits in the content area must be taken with PSU faculty members to ensure that the University is satisfied with the content area achievement. Students must complete their internship in residence for review by PSU's faculty.

The culminating field experience is typically 12 weeks for a single endorsement. Candidates who are fully employed in the area of endorsement take the practicum course; all others complete the internship. A graduate practicum is arranged, and details of this contract can be obtained from the College of Graduate Studies.

Upon completion of the program, students must file a petition for certification to start the completion process. The transcript audit is then completed, and a letter with certification documents is mailed to the student.

TEACHER PREPARATION AND CERTIFICATION PROGRAMS

PSU's teacher education programs are renowned in New Hampshire and throughout New England, and PSU's graduates are actively recruited for teaching positions. Beginning as early as the first year, teacher education candidates have many opportunities to teach and learn in public elementary, middle, and high school settings. This experience culminates in an intensive internship, or practicum for candidates fully employed in the area of certification. The culminating field experience is typically 12 weeks for a single-level endorsement (K–8, 5–9, 7–12) and two eight-week experiences (one at the primary level and one at the secondary level) for K–12 certification.

All teacher certification candidates who interact with students in public school settings through course-related field experience are subject to New Hampshire state legislation that requires all persons who regularly come into contact with pupils on a daily

basis to undergo a full disclosure criminal records check which may include fingerprinting. The processing of the criminal records check is conducted at the site school before the field experience begins. The fee for this processing is the responsibility of the teacher candidate and is paid directly to the school district. Inquiries should be directed to the Graduate Certification Coordinator.

Teacher education program graduates are eligible for recommendation to become a New Hampshire Department of Education certified teacher. Since New Hampshire is a member of the Interstate Certification Compact, PSU's graduates are also eligible for initial certification in most states by applying to an individual state's Department of Education.

Conceptual Framework for Teacher Education

The conceptual framework for teacher education at PSU is a shared set of beliefs and attitudes that serve as the foundation for each teacher education program. The framework clearly identifies for faculty, staff, and students the core values that PSU shares as a community. These core values—commitment, holism, experience, collaboration, and knowledge—are meaningfully integrated into all teacher education coursework, service learning, and practice teaching experiences. In brief, the underlying assumptions of the conceptual framework are as follows:

Commitment: PSU defines commitment as dedication, perseverance, and individual and social responsibility. Graduate candidates are committed to lifelong learning and to increasing self-knowledge—the beliefs that all students can learn, and that education has the power to transform individuals and the greater society. Graduate candidates recognize the responsibility of educators to take a thoughtful and critical stance toward themselves and their profession.

Holism: PSU's holistic perspective involves affirming diversity and understanding the "whole child" within the family, community, and cultural context. It includes working toward an integrated curriculum and recognizing how educators are shaped by personal experiences and culture. This holistic perspective shapes PSU's larger vision.

Experience: Experience allows us to put theory into practice. PSU provides opportunities for experiential learning that serve communities and schools so that candidates can do the same for their students. Experience also involves constantly renewing skills and knowledge within one's discipline.

Collaboration: Collaboration involves working with students, families, and colleagues effectively toward shared goals, showing respect and openness toward diverse perspectives, and confronting and resolving conflicts effectively and respectfully.

Collaboration enhances both teaching and learning, and is an essential part of developing the capacity to lead.

Knowledge: Knowledge refers to understanding the theory, content, methods, materials, and technologies of one's field, and understanding child and adolescent development, learning processes, and motivation as these are shaped by culture. Teaching that engages all learners combines a knowledge of students and the content areas within cultural, social, and institutional contexts.

Diversity Goals for Teacher Education Candidates

In order to teach effectively and ensure student learning in a democratic and pluralistic society, each teacher education candidate at PSU, by the conclusion of his or her program, will have developed the ability to describe culture as a multifaceted and dynamic construct; critically examine his or her own sociocultural positions and understand the ways in which background and experiences shape one's view of the world; learn from and about students, families, and communities, and draw on this knowledge to inform instruction; view students and families of diverse backgrounds and abilities in respectful and affirming ways; acquire and extend his or her own multicultural awareness by exploring and learning about the history, experiences, beliefs, and values of others; recognize and challenge biases in him or herself and others, as well as institutional oppression in schools and throughout society; and implement inclusive, culturally responsive teaching practices.

ROAD TO TEACHER CERTIFICATION

The term "gate" is commonly used by NCATE accredited colleges and universities to describe their decision points in their candidate and unit assessment systems. A gate is a level of attainment that clearly communicates how far the candidate has progressed on the road to certification.

Gate 1: Teacher certification candidacy
Timeline: first year

Gate Requirements:

- a. Admission to program
- b. Official program of study in student file
- c. Required GPA of 3.0
- d. If conversion student, a passing Praxis I score

Gate 2: Application to internship or practicum
Timeline: Semester prior to internship

Gate Requirements:

- a. Meet with program coordinator to initiate Intent to Complete Internship and Practicum form
- b. Résumé
- c. Professional statement

- d. Placement confirmation form submitted to certification coordinator

Gate 3: Culminating experience and program completion
Timeline: Upon completion of all coursework

Gate Requirements:

- a. Mid-term evaluation—Mentor Teacher
- b. Final evaluation—Mentor Teacher
- c. Mid-term evaluation—Clinical Faculty
- d. Final Evaluation—Clinical Faculty
- e. Completion and presentation of electronic portfolio
- f. Completion of petition for certification or graduation if a master's candidate
- g. Approval for certification

TEACHER CERTIFICATION OPTIONS (POST-BACCALAUREATE)

Art Education, K–12

Biological Science, 7–12

Computer Technology Educator, K–12

Elementary Education, K–8

English Education, 5–12

French Education, K–12

General Science, 5–9

General Special Education, K–12

Health Education, K–12

Library Media Specialist, K–12

Mathematics, 7–12 and 5–8

Music Education, K–12

Physical Education, K–12

Social Studies Education, 5–12

Spanish Education, K–12

Teaching English to Speakers of Other Languages (TESOL), K–12

SPECIALIST CERTIFICATION OPTIONS (POST-MASTER'S)

Curriculum Administrator, K–12

Reading and Writing Specialist, K–12

School Counselor, K–12

School Principal, K–12

School Psychologist, K–12

Special Education Administration, K–12

Superintendent (CAGS required), K–12

Note: Secondary teacher certification will require undergraduate or graduate coursework within the content area and methods. K–8 teacher certification will require undergraduate or graduate coursework in various curricula and methods.

MASTER OF SCIENCE (MS)

MS in Applied Meteorology

Program Coordinator: Jim Koermer, PhD

(603) 535-2574, e-mail: koermer@plymouth.edu

The Master of Science in Applied Meteorology (MSAM) program is managed by the Department of Atmospheric Sciences and Chemistry and is housed in the Judd Gregg Meteorology Institute in the Boyd Science Center. The degree is designed to meet regional and national needs for professional meteorologists who require more than baccalaureate-level education and qualifications. The program offers students the latest knowledge and research skills in many core areas of operational meteorology that are needed to provide modern weather support to a wide variety of customers. The program focuses on such areas as advanced weather analysis and forecasting; air quality; aviation meteorology; hydrology; mesonet/road weather meteorology; radar/satellite meteorology; and computer-based programming and meteorological applications.

MSAM Program Highlights

- The only MS in meteorology program in New Hampshire and one of only a handful in the northeastern United States
- Outstanding technology and facilities
- Dedicated faculty willing to work closely with students
- Most professors have real operational meteorological experience
- Active collaborations with NOAA, NASA, NWS, UNH, USAF, MWO, NHDOT, and NHDES
- Some full assistantships with tuition waivers are available
- Flexibility in course selection to tailor a program to the student's need
- Well-qualified students may be able to complete the program in approximately 18 months
- Office area for graduate students
- Cost-efficient program

Admission to the MSAM Program

Plymouth considers applications on a rolling admissions basis that allows students to apply at any time of the year. The MSAM program is based on full fall, winter, spring, and summer semesters. However, it is generally recommended that students start the program during the fall semester. Applicants planning to begin studies during the fall semester should submit completed admissions applications by January 31 for priority consideration for the limited enrollment slots and available assistantships. Applicants wanting to start in the spring semester should apply by August 31 for limited enrollment slots, but should be advised that assistantship support may not be available. An official score report is required from the Graduate Record Examination for the quantitative, verbal, and analytical writing components. All

interested candidates are encouraged to contact the MSAM program coordinator for an in-person or phone interview before submitting their applications.

Types of Admittance

Full admission to the MSAM program may be granted to students meeting all of the criteria for admission. The most highly qualified admitted students may also be offered assistantships or tuition waivers or both based on available resources.

Full admission to the College of Graduate Studies with the opportunity to enroll in graduate meteorology courses may be granted to some students with marginal credentials. Such students would not initially be eligible for assistantships. Upon completion of a successful semester—3.0 or higher cumulative grade point average (GPA)—the student would automatically be granted full admission to the MSAM degree program and could then be considered for an assistantship.

Graduate Study by Undergraduate Seniors

Plymouth State University seniors with a cumulative GPA of 3.0 or better may take up to six graduate credits with prior permission of the instructor, advisor, department chair, and the associate vice president for the College of Graduate Studies as outlined in the Student Request form.

MSAM GPA Requirements

MSAM graduate students must maintain a cumulative GPA of 3.0 or higher in the program to maintain satisfactory progress. Only one passing course grade of less than B- will be allowed to count toward the 30-credit degree minimum.

Students fully enrolled in the MSAM who fall below a 3.0 cumulative GPA will have one semester to restore it to the satisfactory level. If a student does not achieve this level after one semester, the student will be barred from future coursework and pursuit of the MSAM degree and lose assistantship support (if applicable).

Students admitted into the College of Graduate Studies, but not formally enrolled in the MSAM program, will not be eligible to enroll in the MSAM program and pursue the degree if they fail to earn a satisfactory GPA during their first semester.

Program of Study and Degree Requirements

The program requires a minimum of 30 credits to complete an MS degree. By the end of their second full semester, students will choose either the thesis or non-thesis degree option. However, not all students may be able to select the thesis option since the number of students that can be supported in this option is limited by faculty availability. Students desiring to pursue the thesis option will need to consult with their advisor and other meteorology faculty to identify a faculty mentor.

Credit minimums for each option are:

- Thesis: 24 credits of coursework and six credits of thesis research
- Non-thesis: 27 credits of coursework (not to include thesis research credits) and three credits of independent study

Students taking the thesis option would take fewer formal courses and make up credits through thesis research. Non-thesis students would be expected to complete a shorter research paper through a three-credit independent study course arranged with a member of the meteorology faculty. As part of their coursework, all students must take a one-credit Graduate Seminar course each full semester. Only three credits from this course may count toward the 30-credit degree requirement

Coursework

There are no specific courses required for degree completion except the Graduate Seminar and either thesis or independent study research credits. Students are encouraged to complete courses in a variety of areas, but have flexibility in selecting the courses that will fit their academic goals. Students will work closely with their academic advisors to develop an appropriate program of study, generally by the end of their first semester in the program. This plan must be approved by both the advisor and the associate vice president for the College of Graduate Studies.

Co-listed Courses

Some upper-division undergraduate courses are co-listed as graduate courses. Graduate students enrolled in these courses will be expected to complete additional coursework, such as papers and projects, to earn graduate credit in these courses. The co-listed courses are as follows:

CO-LISTED METEOROLOGY COURSES		CREDITS
*MT 5300/4300	Synoptic Meteorology II	4
*MT 5310/4310	Dynamic Meteorology I	3
*MT 5320/4320	Dynamic Meteorology II	3
*MT 5410/4410	Atmospheric Physics	3
MT 5110/4110	Air Quality	3
MT 5430/4430	Climate Change	3
MT 5450/4450	Advanced Synoptic Meteorology	3
MT 5470/4470	Micrometeorology	3
MT 5550/4550	Topics	3

Students with undergraduate degrees in meteorology or atmospheric science are expected to have already completed the asterisked courses above, or their equivalents, and these students cannot take those courses for graduate credit. Eligible undergraduate students desiring graduate credit for the non-asterisked courses should sign up for the course using the graduate course number. Students entering into the program without a BS in meteorology or sufficient meteorology course background will need to complete the four courses highlighted

with an asterisk as a minimum, but only two of those courses can be counted toward the 30 graduate credits requirement. Any further prerequisite deficiencies would have to be made up with non-degree credits.

Graduate Courses

At least 15 of the credits counting toward the MS degree must come from the non-co-listed, 5000 level meteorology courses listed below. All students must sign up for the Graduate Seminar during each of their fall and spring semesters and may count up to three seminar credits toward their 30 graduate credits degree requirement.

NON CO-LISTED METEOROLOGY COURSES		CREDITS
MT 5350	Boundary Layer Meteorology	3
MT 5600	Computer Applications in Meteorology	3
MT 5620	Numerical Weather Prediction	3
MT 5200	Transportation Meteorology	3
MT 5340	Radar Meteorology	3
MT 5330	Satellite Meteorology	3
MT 5800	Thesis Research	3
MT 5700	Graduate Seminar	1
MT 5910	Independent Study	1-4

Additional non-meteorology courses could also be used to fulfill up to nine credits toward degree requirements with approval of the advisor and meteorology program coordinator. The following are examples, but not a definitive list, of such courses:

Mathematics

MG 3120	Elements of Linear Algebra
MG 3300	Statistics II
MG 3410	Numerical Methods Using the Computer
MG 4420	Numerical Analysis Using the Computer
MG 4450	Seminar in Applied Mathematics (check topic)

Environment

ESP 5500	ST: Hydrology
ESP 5510	Limnology

Total for MS in Applied Meteorology **30**

MS in Athletic Training

Program Coordinator: Marjorie King, PhD, ATC, PT
(603) 535-3108, e-mail: making1@plymouth.edu

The MS in Athletic Training program offers three concentration areas: (1) Entry-Level for those seeking a CAATE accredited program in preparation for taking the Board of Certification examination in athletic training, (2) Sports Medicine for those Certified Athletic Trainers seeking advanced content in athletic training, and (3) Higher Education for those Certified Athletic Trainers

seeking combined clinical and teaching roles in Athletic Training higher education.

MS IN ATHLETIC TRAINING, ENTRY-LEVEL CONCENTRATION

The CAATE-accredited Entry-Level concentration is designed to provide students interested in the field of athletic training the opportunity to develop the necessary skills and knowledge through classroom experiences and clinical rotations to meet the competencies set forth by the National Athletic Trainers' Association (NATA) Education Council, and to further develop skills and knowledge in the field of athletic training through research and advanced courses. During each semester, for a minimum of four semesters, students will enroll in an athletic training practicum. During the practical experience, students will be placed under the direct supervision of an approved clinical instructor. Students must have at least a grade of B in the following four core courses: Orthopedic Assessment I, Orthopedic Assessment II, Modalities in Sports Medicine, and Therapeutic Exercise in Athletic Training. The Entry-Level option is a two-year program that begins each summer. Completed applications for this program must be submitted no later than February 1 annually.

Admission

Admission is competitive, limited, and is not guaranteed even to those who meet the minimum requirements. Students must verify that they can comply with the program's Technical Standards. Technical Standards are available to all interested students and can be obtained by contacting the health and human performance department or by visiting the Athletic Training Web site at plymouth.edu/graduate/academics/degrees/masters/ms/athletic-training/entry-level.

Prerequisites

1. Baccalaureate degree from accredited institution of higher learning
2. 3.0 undergraduate grade point average
3. Comprehensive statement of professional goals
4. Graduate Record Exam (GRE)
5. Three letters of recommendation
6. Entry-Level only:
 - a. Minimum of 50 hours observation under direct supervision of a BOC Certified Athletic Trainer. Original letters of documentation must be submitted as part of the application.
 - b. Minimum grade of C in the following college or university courses (must be taken within the past seven years):

	CREDITS
• Anatomy (with lab)	4
• Physiology (with lab)	4
• Kinesiology	3

- Exercise Physiology 3
- Nutrition 3
- Personal Health 3
- Fitness Education and Assessment 2–3
- First Aid and CPR (and current certification)

- AT 5610 Statistics in Health Science 3
- AT 5950 Graduate Thesis 6 (min)
- OR**
- AT 5900 Directed Research 6 (min)

Program of Study

REQUIRED COURSES	CREDITS
AT 5600 Research Design in Health Science	3
OR	
ED 5030 Research Design	3
AT 5000 Psychomotor Skills in Athletic Training	3
AT 5010 Orthopedic Assessment I	3
AT 5020 Orthopedic Assessment II	3
AT 5100 Athletic Training Administration	3
AT 5200 Pharmacology in Sports Medicine	2
AT 5250 Therapeutic Exercise in Athletic Training	3
AT 5300 General Medical	3
AT 5500 Modalities in Sports Medicine	3
AT 5750 Practicum in Athletic Training I	3
AT 5760 Practicum in Athletic Training II	3
AT 5770 Practicum in Athletic Training III	3
AT 5780 Practicum in Athletic Training IV	3
AT 5800 Current Issues in Athletic Training	3
AT 5255 Introduction to Burdenko Conditioning	1

Minimum Total for MS in Athletic Training, Entry-Level Concentration **42**

MS IN ATHLETIC TRAINING, ADVANCED MASTER’S HIGHER EDUCATION CONCENTRATION

The MS in Athletic Training Advanced Master’s program in Higher Education provides graduate students the opportunity to develop the necessary skills and knowledge through classroom experiences and clinical rotations. Students will further develop skills and knowledge through research and advanced courses in athletic training and education. The Higher Education concentration is designed to prepare certified athletic trainers for a variety of teaching and leadership roles in higher education.

Admission

The application deadline for admission into the Advanced Master’s program is February 1 of each year. All MS in Athletic Training candidates must take the Graduate Record Examination (GRE), schedule an appointment with the program advisor, submit a completed graduate program application, and have BOC certification and one year of experience (preferred) as a certified athletic trainer (ATC).

REQUIRED COURSES	CREDITS
AT 5600 Research Design in Health Science	3
OR	
ED 5030 Research Design	3

Plus choose 15 credits from:

AD 5010 Organizational Leadership in Schools	3
AD 5020 Staff Development and Evaluation	3
AD 5300 School Finance and Negotiations	3
AD 5560 Special Topics in Educational Leadership	3
AD 5700 School Law	3
AT 5850 Performance Enhancement Specialization	1–3
AT 5790 Advanced Practicum in Athletic Training	1–6
AT 5900 Directed Research	1–3
AT 5910 Independent Study	1–6
AT 5700 Instructional Strategies in Burdenko Conditioning	3
AT 5875 Special Topics in Athletic Training	1–3
CE 5150 Making Multimedia Meaningful	3
CE 5600 Administrative Uses of Computers	3
ED 5060 Theories of Learning and Cognitive Development	3
ED 5190 Introduction to Grant Proposal Writing	3
ED 5270 Foundations of Teaching	3
ED 5430 Internship in College Teaching	3
ED 5500 Special Topics: Adult Learning	3

Total for MS in Athletic Training, Higher Education Concentration **33**

MS IN ATHLETIC TRAINING, ADVANCED MASTER’S SPORTS MEDICINE CONCENTRATION

The Sports Medicine option is designed to introduce certified athletic trainers to advanced skills and knowledge in sports medicine. Students will further develop skills and knowledge through active involvement in ongoing research as well as advanced courses in athletic training.

Admission

The application deadline for admission into the Advanced Master’s program is February 1 of each year. All MS in Athletic Training candidates must take the Graduate Record Examination (GRE), schedule an appointment with the program advisor, submit a completed graduate program application, and have BOC certification and one year of experience (preferred) as a certified athletic trainer (ATC).

Program of Study

REQUIRED COURSES	CREDITS
AT 5600 Research Design in Health Science	3
OR	
ED 5030 Research Design	
AT 5610 Statistics in Health Science	3
AT 5950 Graduate Thesis	6
OR	
AT 5900 Directed Research	6

Plus choose 21 credits from:

AT 5700 Instructional Strategies in Burdenko Conditioning	1–3
AT 5790 Advanced Practicum in Athletic Training	1–6
AT 5850 Performance Enhancement Specialization	3
AT 5875 Special Topics in Athletic Training	1–3
AT 5900 Directed Research	1–3
AT 5710 Burdenko Certification Part I	3
AT 5720 Burdenko Certification Part II	3
AT 5730 Burdenko Certification Part III	3
AT 5740 Aquatic Exercise for Therapeutic Intervention and Sports Training and Conditioning	3
AT 5910 Independent Study	1–6
PE 5560 ST: Principles and Theories of Strength and Conditioning	3
HH 5560 Topics in Alternative Health and Healing	3
HH 5600 Body Centered Therapies	3
OH 5700 Creating Organizational Health	3
HL 5160 Eating Disorders: Awareness, Prevention, and Education	3
HL 5190 Medical and Physiological Aspects of Eating Disorders	3
HL 5180 Nutrition: Education and Counseling	3
HL 5170 Treatment Modalities for Eating Disorders	3

Total for MS in Athletic Training, Advanced Master's Sports Medicine Concentration 33

MS in Biology

Program Coordinator: Len Reitsma, PhD
(603) 535-2558, e-mail: leonr@plymouth.edu

The MS in Biology degree program provides students with expanded knowledge and research skills in some of the core areas in biological sciences that are necessary for students to attain professional goals. Coursework in this program prepares professional biologists with a wide variety of skills needed to

apply current knowledge and technology to address and support current and future biological problems. The research emphasis of this program will further enhance these skills and contribute to the body of knowledge in the field of biology.

Biology Program Objectives

Students in PSU's MS in Biology program will develop research skills by working on unanswered questions in the field of biology; become familiar with the latest biological technology relating to physiology, behavior, biotechnology, and ecology; understand the capabilities and limitations of these various technologies; and be able to communicate biological issues effectively both verbally and in writing.

Admissions Standards for the MS in Biology

Admission is competitive and is dependent upon a faculty member agreeing to serve as advisor to the students; therefore, students should investigate faculty research interests before applying to the program. Applicants must possess a 3.0 cumulative grade point average for their undergraduate coursework in the areas of science and math to be considered for full matriculation in the program. Exceptions to this may be possible upon consultation with faculty in the department. Applicants must have acceptable Graduate Record Examination (GRE) scores and provide official GRE results. Successful applicants will also need proper backgrounds in key areas, such as mathematics, physics, chemistry, and biology. Students without the necessary prerequisites may have to mitigate these shortfalls. All other College of Graduate Studies admissions policies, fees, and conditions apply.

Students will be selected for admission by a biology faculty committee. Students not meeting admissions requirements may be admitted as non-matriculated biology program students, and would not be eligible for assistantships or tuition waivers until they are fully admitted into the MS in Biology program.

Degree Requirements

The program requires a minimum of 30 credits with the following framework for thesis and non-thesis options:

- Thesis: 24 credits of coursework and six credits of thesis research
- Non-thesis: 28 credits of coursework and two credits of independent study

Non-thesis students will need to complete a shorter research paper through a two-credit independent study course. All students are required to maintain a 3.0 cumulative graduate grade point average. The only required courses for all students are the one-credit Graduate Seminars that must be taken each semester (and may cover up to two credits of the graduate credit requirements) and the one-credit University Biology Teaching course.

Program of Study

Students, along with their faculty advisor, will design their program of study in one or more of the following general areas: animal behavior, biological rhythms, biotechnology, botany and plant physiology, conservation biology, ecology, and electron microscopy.

Students will be required to complete courses in a variety of the above listed areas, but there are flexible options to select those courses. Students, along with their faculty advisor and graduate committee, will determine the best course selections for their program of study. Some of the current upper-division undergraduate courses will be co-listed as graduate courses. Graduate students can enroll at the graduate 5000 level for these co-listed courses, which will require a grade of B or better to pass, along with the additional graduate-level assigned papers or projects.

Program of Study

BIOLOGY COURSES		CREDITS
BI 5900	Graduate Seminar in Biology	3
BI 5910	Independent Study	3
BI 5560	Special Topics in Biological Science	3
BI 5950	Thesis Research	6
BI 5230	Landscape Ecology	3
BI 5100	Biology Colloquium	1
BI 5810	University Biology Teaching	1

UNDERGRADUATE AND GRADUATE CO-LISTED BIOLOGY COURSES

BI 4090/BI 5110	Cell Structure and Function	4
BI 4180/BI 5120	Biotechnology	4
BI 4300/BI 5130	Ecology	4
BI 4760/BI 5140	Animal Behavior	4
BI 4770/BI 5150	Animal Physiology	4
BI 4780/BI 5160	Neurobiology	4

ENVIRONMENTAL SCIENCE AND BIOLOGY CO-LISTED COURSES

EV5350/BI 5350	Conservation Biology	3
EV5380/BI 5380	Avian Ecology	3

Total for MS in Biology **30**

PSU senior undergraduate students will be allowed to double-count up to six credits of the above listed courses toward their graduate total as long as they receive an A in the course as an undergraduate. Students entering into the program without a BS in Biology or sufficient biology course background will need to meet with a program advisor to discuss the possible need to take undergraduate courses in certain subdisciplines of biology as prerequisites for the program.

MS in Environmental Science and Policy

Program Coordinator: Brian Eisenhauer, PhD
(603) 535-2497, e-mail: bweisenhauer@plymouth.edu

The MS in Environmental Science and Policy (ESP) prepares future scientists and resource managers with interdisciplinary competence for career opportunities in industry, government, non profits, and academia. The program focuses on interrelated chemical, physical, biological, and socio-cultural topics that drive environmental research, policy, and management. The coursework and applied research trains students to better meet the needs of future employers. Representatives of potential employers will be involved in the program as advisors, instructors, funders, and as student-committee members, and will thus provide regular feedback to the program. The program is intended to be highly flexible to meet the needs of individual students. Students select a program of study with at least one course in each of four categories: social science, communications, terrestrial science, and aquatic science. All students are required to take the Graduate Science Colloquium Series. Students are encouraged to develop a public outreach component to their coursework or thesis, to hone a skill necessary for success in the working world. Each student will have a program of study created by the student and the advisor and approved by the environmental science and policy program coordinator.

PSU has a partnership agreement with the Humboldt Field Research Institute (HFRI) in Steuben, Maine. The HFRI offers weeklong, intensive field courses, taught by a diverse and revolving international faculty. Up to six pass or no pass graduate credits may be taken at HFRI.

Student theses focus on issues of importance to the regional environment, and include an outreach component to provide communication experience.

Full-time graduate students are encouraged to enroll in the summer to get a jump-start on thesis research and to have the opportunity to complete their programs within two years. Part-time students can set their own schedules, depending on personal needs. Most graduate courses will be offered one day per week in the late afternoon or early evening, to minimize disruptions to the work schedules of part-time students, and to facilitate field research.

Program of Study

Steps for prospective students:

1. Choose the preferred program status:
 - Thesis or non-thesis
 - Full-time, part-time, or accelerated 1+ year program
2. Establish a line of communication with a prospective faculty advisor. A faculty member must agree to serve as advisor before the student can be formally accepted into the program.

3. Take the GRE and submit an application to the program. A student can be admitted and defer taking courses for up to two years. Alternatively, students can take up to 12 credits before being admitted.
4. Develop a financial plan for studies in partnership with an advisor, including but not limited to:
 - Federal work-study (contact the Financial Aid Office)
 - Grant funding available or to be sought before applying

The student's GPA for pre-enrollment courses will be used as part of the application evaluation.

For faculty and matriculated full-time students on the two-year plan:

First semester:

- Enroll in classes as early as possible (under-enrolled classes may be canceled), including the required graduate colloquium.
- Determine financial aid and assistantship status with advisor.
- Discuss thesis project (if a thesis student) with advisor, and begin literature search.
- Begin to fill out the program of study with course selections and committee membership, and meet with the committee and the graduate program coordinator before the end of the semester to discuss the preliminary plan.

Second semester:

- Continue to take courses (including the colloquium), and register for at least one course at the HFRI.
- Complete a draft of the program of study. Meet to discuss and sign with committee and graduate coordinator.
- Begin work on a thesis proposal (if a thesis student), and present a research plan overview late in the semester as part of the colloquium.
- Begin research data collection.

Third semester:

- Continue to take classes, including thesis credits and the colloquium.
- Determine financial aid and assistantship status with advisor.
- Begin transforming thesis proposal into the thesis using data as collected; work with advisor and the Writing Center as necessary to refine thesis drafts.
- Meet with committee and program coordinator.

Fourth semester:

- Register for graduate thesis credits and complete other courses as necessary.
- Complete research data collection and complete a draft of the thesis early in the semester.
- Continue to write and obtain feedback from advisor and Writing Center.
- Submit thesis draft to entire committee when approved by advisor.

- Defend thesis.

Part-time students and students in the accelerated 1+ year program will modify the timeline and guidelines in consultation with their advisor and the graduate program coordinator, depending on individual circumstances.

Program of Study

REQUIRED COURSES		CREDITS
ESP 5760	The Nature of Environmental Systems	3
ESP 5620	Environmental Policy	3
ESP 5210	Forest Ecosystems	3
ESP 5710	Science Colloquium	1

Biophysical Component (choose one course)

ESP 5320	Watershed Hydrology	3
ESP 5580	Climate Variability and Change	3
ESP 5700	Graduate Seminar in Ecology and the Environment	3

Social Science Component (choose one course)

ESP 5750	Environmental Ethics	3
ESP 5550	Environmental Economics	3
ESP 5610	Environment and Society	3

Social Science Component (choose one course)

ESP 5740	Ecosystem Management	3
ESP 5530	Science-based Research Design and Data Visualization	3
ESP 5770	Scenario Planning	3

Electives (5-8 credits minimum)

Research Experience (3-6 credits total)

ESP 5900	Master's Thesis Research	5
ESP 5540	Master's Thesis Outreach	1
OR		
ESP 5920	Independent Environmental Research	2
ESP 5560	Independent Environmental Research Outreach	1

Total for MS in Environmental Science and Policy **30 (min)**

MS in Science Education

Program Coordinator: Warren Tomkiewicz, EdD
(603) 535-2573, e-mail: warrent@plymouth.edu

The MS in Science Education degree program enhances the science content knowledge and further develops the scientific process and inquiry skills of middle and high school science teachers. The program provides the opportunity for teachers to gain the knowledge and skills to make informed decisions necessary for the development, implementation, and assessment of meaningful science programs in their school districts. These efforts will help to ensure that science teachers are effective teachers and are prepared according to the National Science Education Standards and the National Science Teachers Association Standards for Science Teacher Preparation. This program is intended for science teachers already holding science certification.

The MS in Science Education is designed to promote science learning for teachers through the use of both innovative teaching methods in the classroom, laboratory, and field, and authentic assessment strategies that are applicable to their own classrooms. The program is based on the research, goals, vision, and best practices derived from the science education community.

Objectives

The general objectives of the MS in Science Education program are to increase the science knowledge and skills of teachers, including the use of technology, through study in biology, chemistry, meteorology, biotechnology, the Earth systems, or the physical sciences; update the teacher’s knowledge about current issues and best practices in science teaching, learning, and assessment in the classroom and laboratory setting based on national and local school data; provide laboratory and field opportunities for teachers to participate in scientific research so that they may enhance their understanding of the process of scientific inquiry; develop a discipline-based scientific collaboration with university faculty and organizations to provide teachers with support to reflect on issues and resources; develop classroom-based research strategies (action research) to promote improvement of existing science teaching practices; and enhance the teacher’s understanding and application of the national and state science education standards.

Program of Study

REQUIRED COURSES	CREDITS
MSSE Core Courses	
NS 5700 Science Teaching in the Middle and High School	3
NS 5800 Seminar: Current Issues in Science Education	3
NS 5200 Action Research in the Science Classroom: Foundation and Implementation	3

NS 5850 Capstone Research Project 4

Individualized Science Content Courses 20

The Individualized Science Content requirement is satisfied by successfully completing courses and institutes in biology, chemistry, environmental, biotechnology, Earth system, or physical sciences.

Total for MS in Science Education 33

CERTIFICATE OF ADVANCED GRADUATE STUDIES (CAGS)

CAGS in Educational Leadership

The CAGS program in Educational Leadership was first offered in the spring of 1997. It is a 33- to 60-credit program that addresses the needs of practicing educators who have completed a master’s degree and who are interested in pursuing advanced academic work in educational change and leadership. This program is built on a foundation of human development and systems theories, critical thinking and reflection, advanced practice models, and democratic leadership skills.

The program is designed for professionals in education or a related field who are interested in becoming part of a dynamic, advanced-level graduate program. Accepted candidates will explore contemporary issues in education for all students. Students can design their program of study to obtain certification in the following concentration areas:

- Curriculum Administrator, K–12
- Reading and Writing Specialist, K–12
- School Principal, K–12
- School Psychologist, K–12
- Special Education Administration, K–12
- Superintendent of Schools, K–12

Course meetings are sometimes held in conjunction with major educational conferences in New Hampshire and the region. One-week intensive core courses are offered during the summer, making it possible to complete the core courses within two years. Students may transfer post-master’s level courses into their CAGS program. The number of credits approved for transfer will be determined on a case-by-case basis by the program advisor with approval from the associate vice president for the College of Graduate Studies.

<i>Program of Study</i>		
REQUIRED COURSES		CREDITS
Core Courses		
EP 7020	Collaborative Leadership	3
EP 7030	Transforming the Educational Agenda	3
EP 7040	Planning in Education and Human Services	3
EP 7050	Qualitative Methodology and Applied Research	3
EP 7060	Legal Issues in Policy Making	3
EP 7070	Contemporary Social Trends	3
Specialization Component		
Concentration area different from master's degree		12
Elective Component		
Elective (to be approved by advisor)		3
Total for CAGS in Educational Leadership		33

(Further information pertaining to certification can be found on page 62)

Non-certification CAGS concentrations

- Administration and Curriculum/Assessment
- Arts, Leadership, and Learning
- Counselor Education (School Counseling or Mental Health Counseling) and School Psychology
- Doctoral Program with Argosy University or Franklin Pierce University
- Neurodevelopmental Approach to Teaching
- Self-Designed

ARTS, LEADERSHIP, AND LEARNING CONCENTRATION

Program Coordinators:

Patricia Lindberg, PhD

(603) 535-2647, e-mail: plindber@plymouth.edu

Cynthia Vascak, PhD

(603) 535-3001, e-mail: cynthiav@plymouth.edu

The CAGS concentration in Arts, Leadership, and Learning is a 33-credit program that addresses the needs of practicing educators and administrators who have completed a master's degree and are interested in pursuing advanced academic work in arts, leadership, and learning. The program is a natural extension of the work being done at PSU in arts integration and serves to address current national trends and legislation toward the integration of the arts as an integral part of the core curriculum.

<i>Program of Study</i>		
REQUIRED COURSES		CREDITS
Core Component		
EP 7020	Collaborative Leadership	3
EP 7030	Transforming the Educational Agenda	3
EP 7040	Planning in Education and Human Services	3
EP 7050	Qualitative Methodology and Applied Research	3
EP 7090	Critical Perspectives for Arts Advocacy	3
EP 7110	Arts and Learning	3
EP 7130	Shaping Policies and Practices in Arts Education	3
Specialization Component		
Coursework selected in conjunction with advisor.		12
Total for CAGS in Educational Leadership, Arts, Leadership, and Learning Concentration		33

COUNSELOR EDUCATION AND SCHOOL PSYCHOLOGY CONCENTRATIONS

The Counselor Education and School Psychology concentrations are designed as 33-credit programs that address the needs of practicing counselors and educators who have completed a master's degree and are interested in pursuing advanced academic work in school counseling, mental health counseling, counselor education, or school psychology.

Admission Requirements

The basic admissions requirements for the CAGS concentrations in Counselor Education and School Psychology are the same as for the CAGS in Educational Leadership, but with two additional requirements. First, prospective students need to meet with the chair or program coordinator to undergo a curriculum review of the candidate's previous master's degree to determine initial eligibility for the degree. Second, candidates must participate in the counselor education and school psychology admissions interview. The admissions interview is a half-day event held in August, November, February, and May, and involves an informational session and group and individual interviews. Participation in the interview process is open to any prospective student and is not dependent on completing the application process to the College of Graduate Studies. An admissions decision will be made upon completion of all admissions requirements.

Monitoring and Dismissal Process

The program faculty has the responsibility to monitor students' personal and professional characteristics that have the potential to interfere with their ability to perform in an ethical and professionally competent manner. Additionally, the faculty monitors students' academic performance. Thus, all counselor education and school psychology CAGS students are continu-

ously monitored while they are enrolled. This review is done at regularly scheduled faculty meetings by the faculty in consultation with adjunct faculty.

Academic Review

Student transcripts are reviewed during faculty meetings. As per the policy of the College of Graduate Studies, all students must maintain an overall grade point average of at least a 3.0. If the overall grade point average falls below 3.0, students will be required to meet with their advisor to develop a plan for increased academic success and will be placed on academic probation for one term. If at the end of the next term, the student’s grade point average remains below a 3.0, the student will be subject to dismissal from the Counselor Education or School Psychology program.

Students who receive an F in a course will need to meet with their advisor and at least one other faculty member to address the issue. Students will be barred from future coursework unless and until they initiate an appeal process by contacting their advisor. Students may not voluntarily retake courses, and extraordinary permission may only be granted by petition to the associate vice president for the College of Graduate Studies. Students should request a review of their status to determine if they may retake the failed course and if they will be allowed to continue with their program.

Personal and Professional Review

As part of the regular review of students’ personal and professional performance, faculty members note personal and professional issues that significantly affect students’ ability to function adequately as counselors, graduate students, and professionals. The counseling education faculty will delineate specific action steps for students as needed. The student’s advisor (perhaps in conjunction with the program chair) will meet with the student to discuss remediation action steps. Depending upon the nature and severity of the concerns, appropriate action steps will range from collaborative strategies for personal and professional improvement to a required leave of absence to dismissal from the Counselor Education program. For those continuing in the program, scheduled follow-up meetings will be part of the process.

A review of all dismissal decisions can be requested from the associate vice president for the College of Graduate Studies and the vice president for academic affairs.

MENTAL HEALTH COUNSELING

Program Coordinator: Gail Mears, PsyD
(603) 535-2485, e-mail: gmears@plymouth.edu

This program is intended for two distinct groups of counselors who aspire to be leaders in the field of mental health counseling:

- Counseling professionals who hold a counseling master’s degree that does not meet the educational requirements for licensure as a clinical mental health counselor in New Hampshire may be able to meet their educational licensure requirements through the CAGS concentration in Mental Health Counseling. This program allows counselors with specializations in other areas such as school, human relations, or rehabilitation to gain the specialized academic and field experiences required for clinical mental health counseling.
- Already licensed clinical mental health counselors. The CAGS contains coursework targeted at leadership issues applicable to mental health counseling settings. The CAGS concentration in Mental Health Counseling offers the opportunity for counselors who are already licensed or license-eligible to further their education and take specialized coursework in areas that will expand their areas of expertise.

Candidates in the Mental Health Counseling concentration may intern in any mental health organization that can provide the requisite clinical opportunities and clinical supervision.

Program of Study

REQUIRED COURSES CREDITS

Counselor Education Core

CO 7120	Ethical, Legal, and Professional Issues in Counseling	3
CO 7300	Counseling Supervision	3
EP 7050	Qualitative Methodology and Applied Research	3

Mental Health Specialization

CO 5770	Psychopathology: Disorders of Childhood, Adolescence and Adulthood	3
CO 5700	Critical Issues: Mental Health Counseling	3
CO 5600	Foundations of Mental Health Counseling	3
CO 5790	Assessment, Diagnosis, and Treatment Planning	3
CO 5130	Psychopharmacology and the Biological Basis of Mental Health Internship	3
CO 5880	Seminar and Internship in Mental Health Counseling	9

Total for CAGS in Educational Leadership, Counselor Education and School Psychology Mental Health Counseling Concentration **33**

SCHOOL COUNSELING

Program Coordinator: Gary Goodnough, PhD
(603) 535-2821, e-mail: ggoodno@plymouth.edu

This flexible program is intended for two distinct groups of counselors who aspire to be leaders in the field of school counseling:

- Counseling professionals who hold a counseling master's degree that does not meet the educational requirements for New Hampshire certification as a school guidance counselor may be able to meet these requirements through the CAGS concentration in School Counseling. This program allows counselors with specializations in other areas such as clinical, human relations, or rehabilitation to gain the specialized academic and field experiences required for school guidance counseling.
- Already certified school counselors. The CAGS contains coursework targeted at leadership issues applicable to school guidance counseling settings. The CAGS concentration in School Counseling offers the opportunity for counselors who are already certified to further their education and take specialized coursework in areas that will expand their areas of expertise.

Program of Study

REQUIRED COURSES CREDITS

Counselor Education Core

CO 7120	Ethical, Legal, and Professional Issues in Counseling	3
CO 7300	Counseling Supervision	3
EP 7050	Qualitative Methodology and Applied Research	3
	OR	
CO 5560	ST: Action Research for School Counselors	3

School Counseling Specialization

CO 5030	Foundations of School Counseling	3
CO 5650	Critical Issues in Schools	3
CO 5780	Counseling Youth	3
CO 5550	Creating Organizational Health	3
	OR	
EP 7020	Collaborative Leadership	3

Electives 6

Capstone Experience 6

CO 5850	Seminar and Internship in School Counseling K-12	
	OR	
ED 5210	Graduate Practicum	
	OR	
ED 5950	Graduate Thesis	

Total for CAGS in Educational Leadership, Counselor Education and School Psychology School Counseling Concentration 33

SCHOOL PSYCHOLOGY

Program Coordinator: Leo Sandy, EdD

(603) 535-2287, e-mail: lsandy@plymouth.edu

This program is designed for students who already have a master's degree in a discipline related to school psychology. This flexible degree program contains a minimum of 33 credits, but may include up to 57 credits depending on the relatedness to school psychology of the candidate's previous master's degree. Please see the MEd in School Psychology program for a complete listing of courses needed to become certified as a school psychologist.

Program of Study

REQUIRED COURSES CREDITS

Counselor Education Core

CO 7300	Counseling Supervision	3
EP 7050	Qualitative Methodology and Applied Research	3
EP 7020	Collaborative Leadership	3
	OR	
EP 7030	Transforming the Educational Agenda	3

School Psychology Specialization 12+

Students take what they need for certification based on the competencies met in their master's degree program.

Capstone

SY 6800	School Psychology Seminar and Internship	12
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Minimum Total for CAGS in Educational Leadership, Counselor Education and School Psychology School Psychology Concentration 33

SELF-DESIGNED COUNSELOR EDUCATION

Program Coordinator: Gail Mears, PsyD

(603) 535-2485, e-mail: gmears@plymouth.edu

This flexible concentration, intended for students who have a master's degree in counseling or a closely related discipline, allows students to continue their studies in a manner that suits their professional development needs. Entering students who do not have prior coursework in any of the following areas will need to include the missing coursework in their CAGS program:

- Professional Orientation to Counseling
- Quantitative Research Methods
- Social Behavior or Diversity
- Counseling Theories
- Human Development
- Career Development
- Group Counseling
- Testing and Assessment

- Counseling Skills
- Counseling Practicum

Program of Study

REQUIRED COURSES	CREDITS
Counselor Education Core	
CO 7120 Ethical, Legal, and Professional Issues in Counseling	3
CO 7300 Counseling Supervision	3
EP 7050 Qualitative Methodology and Applied Research	3
Focused Electives	18
Capstone Experience	6
CO 5800 Counseling Internship	
OR	
ED 5210 Graduate Practicum	
OR	
ED 5950 Graduate Thesis	
Total for CAGS in Educational Leadership, Counselor Education and School Psychology Self-Designed Counselor Education Concentration	33

NEURODEVELOPMENTAL APPROACH TO TEACHING CONCENTRATION

Program Coordinator: Cheryl B. Baker, CAGS
(603) 535-2737, e-mail: cbaker@plymouth.edu

The College of Graduate Studies has partnered with the Center for School Success to create graduate programs focusing in the Neurodevelopmental Approach to Teaching—the only programs of their kind in the country. The Center for School Success (CSS) is a non-profit organization that helps struggling students achieve measurable success in school and in life. Located in West Lebanon, NH, CSS is the only community-based, educational resource of its type in New Hampshire and Vermont.

Candidates seeking a CAGS with a concentration in the Neurodevelopmental Approach to Teaching will be able to use recent brain-based research to inform their teaching practice, in particular how to identify, respond, and manage students with learning differences. Candidates will demonstrate an understanding of themselves as learners and how they can best capitalize on their own strengths, experiences, and expertise in order to become more effective teachers. Candidates will also use their understanding of the neurodevelopmental systems to provide specific instructional strategies to promote self-advocacy and school success. The Neurodevelopmental Approach to Teaching courses will provide the essential tools and knowledge needed for sustained implementation.

The Neurodevelopmental Approach to Teaching rationale is based on research, best practices, and professional development standards outlined by the College of Graduate Studies, the Council for Exceptional Children (CEC), the National Staff Development Council (NSDC), and the National Council for Accreditation of Teacher Education (NCATE).

Program of Study

REQUIRED COURSES	CREDITS
CAGS Core Component	
EP 7020 Collaborative Leadership	3
EP 7030 Transforming the Educational Agenda	3
EP 7040 Planning in Education and Human Services	3
EP 7050 Qualitative Methodology and Applied Research	3
EP 7060 Legal Issues in Policy Making	3
EP 7070 Contemporary Social Trends	3

Specialization Content Courses

ND 5000 Foundations of Neurodevelopmental Theory	2
ND 5010 Neurodevelopmental Effective Classroom Practice	2
ND 5020 Applying a Neurodevelopmental Approach to Instructional Practice	3
ND 5030 Collaborative Practices to Enhance Teaching and Learning	2
ND 5040 Authentic Data to Engage Students' Minds	2
ND 5050 Attention and Learning in Memory	2

Specialized Electives (choose one)

ND 5100 Reconsidering Referrals to Support Teams	3
ND 5110 New Coaches Institute—Critical Friends	3

Capstone Experience

ND 5800 Practicum in Neurodevelopmental Approach to Teaching	9
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Total for CAGS in Educational Leadership, Neurodevelopmental Approach to Teaching Concentration **43**

Professional Certification Concentrations

K–12 CURRICULUM ADMINISTRATOR

Program Coordinator: Kathleen Norris, EdD
(603) 535-3023, e-mail: knorris@plymouth.edu

The Curriculum Administrator program is designed to develop outstanding instructional leaders who will encourage the improvement of learning opportunities and academic achievement for all students. The objectives of the various courses to be required in the program are based on the NH State Standards for

the certification endorsement and adhere to the guidelines set by ISLLC for programs in educational leadership.

The program of study addresses the role of the curriculum administrator as a leader of a professional learning community who is charged with the responsibilities of planning, implementing, and evaluating educational programs that are relevant and responsive to the needs of learners. Courses will address the competencies required of the curriculum administrator as collaborative leader, decision-maker, consultant, and specialist in advising administrators, teachers, the community, and other professional personnel on the research and best practices in curriculum development, instruction, and assessment of student learning.

Candidates for the Curriculum Administrator program must have at least three years of experience as a K–12 educator and hold at least a master’s degree in curriculum and instruction, or in education, with additional coursework in the areas of curriculum, instruction, and assessment.

Candidates will participate in coursework and field experiences and construct a portfolio based on the standards for certification to demonstrate their skills, competencies, and knowledge before completing the program for certification endorsement.

Prerequisite Coursework (from master’s or post-master’s)

REQUIRED COURSES	CREDITS
ED 5060 Theories of Learning and Cognitive Development	3
OR	
CO 5050 Advanced Human Development	3
ED 5080 Instructional Strategies and Curriculum Design	3
OR	
SE 6040 Curriculum Development in Special Education	3
ED 5140 Assessment Principles and Practices	3
OR	
ED 6100 Curriculum Integration and Performance Based Assessment	3
CE 5140 Electronic Portfolio Development and Assessment	3
OR	
CE 5120 Integration of Technology into the K-12 Curriculum	3
AD 5700 School Law	3
OR	
SE 5300 Special Education Law	3

Program of Study (in suggested order)

REQUIRED COURSES	CREDITS
CAGS Core Component	

EP 7020 Collaborative Leadership	3
EP 7060 Legal Issues in Policy Making	3
EP 7040 Planning in Education and Human Services	3
AD 5020 Staff Development and Evaluation	3
ED 5XXX Elective in Curriculum, Instruction or Assessment	3
EP 7050 Qualitative Methodology and Applied Research	3
EP 7070 Contemporary Social Trends	3
AD 5330 Leadership in Curriculum and Development	3
EP 7030 Transforming the Educational Agenda	3

Practicum (culminating field experience for certification endorsement)

EP 7810 Leadership and Learning Practicum	6
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Total for CAGS in Educational Leadership, K–12 Curriculum Administrator Concentration **33**

K–12 READING AND WRITING SPECIALIST

Program Coordinator: Edith Patridge, MEd
(603) 535-2636, e-mail: epatridge@plymouth.edu

The Reading and Writing Specialist program is based on a broad foundation of courses and experiences in a comprehensive and balanced approach to literacy learning and development. The program is aimed at helping K–12 classroom teachers, special educators, Title I personnel, literacy coaches, curriculum coordinators, adult literacy teachers, educators, and administrators provide the highest quality literacy instruction to all students in today’s diverse classrooms. The program of study builds on candidates’ preparation and experience in reading and writing while addressing standards from the International Reading Association and the NH Department of Education. This advanced specialist program requires that candidates be certified as a teacher and have a minimum of two years of teaching experience before completion of the program.

The coursework emphasizes concepts based on the roles of the reading and writing specialist in the areas of instruction, assessment, and leadership. Reading and writing specialists provide service through many roles, including remedial teacher, co-teaching with the regular classroom teacher, professional development provider, literacy coach, Title I coordinator, and mentor. Newly graduated reading and writing professionals in this program will have the opportunity to develop the competencies in providing leadership for school-, district-, and state-level literacy programs, assessing and evaluating reading achievement and literacy programs, and communicating information about literacy to staff, administration, parents, and the community. Candidates will demonstrate knowledge and skills in five categories of standards outlined by the International Reading Association, including foundational knowledge; instructional

practices and materials; assessment, diagnosis, and evaluation; literate environment; and professional development.

Program of Study

REQUIRED COURSES		CREDITS
CAGS Core Component		
EP 7020	Collaborative Leadership	3
EP 7030	Transforming the Educational Agenda	3
EP 7040	Planning in Education and Human Services	3
EP 7050	Qualitative Methodology and Applied Research	3
EP 7060	Legal Issues in Policy Making	3
EP 7070	Contemporary Social Trends	3

Specialization Component

RL 5110	Research in Reading and Writing	3
ED 5060	Theories of Learning and Cognitive Development	3
OR		
ND 5000	Foundations of Neurodevelopmental Theory	3
RL 5770	Developing Language and Literacy for Diverse Learners	3
RL 5170	Content Area Literacy	3
RL 5014	Reading, Writing, and Literature	3
RL 5710	Advanced Diagnostic Testing and the Improvement of Reading and Writing	3
CE 5120	Integration of Technology in the K–12 Curriculum	3
OR		
CE 5150	Making Multimedia Meaningful	3
LL 5004	Language and Linguistics*	3

Capstone Experience

RL 5830	Practicum in Reading Diagnosis and Remedial Reading	3
RL 5820	Literacy Practicum	3

* Approved Substitutions: LL 5005 Foundations of TESOL Methodology; LL 5007 ESOL Literacy; or NHEON LT-05, or LT 06, or LT-07.

Total for CAGS in Educational Leadership, K–12 Reading and Writing Specialist Concentration **48**

K–12 SCHOOL PRINCIPAL

Program Coordinator: Christie Sweeney, EdD
(603) 535-3096, e-mail: clsweeney@plymouth.edu

Educators who wish to explore the possibilities of school leadership and administration will find PSU’s school principal certification program rich in opportunities for collaboration, research and practical experience. From curriculum development and assessment to school law, school budgets, and community part-

nerships, candidates will master the wide array of responsibilities, duties and leadership qualities an effective school principal must possess.

The School Principal program provides candidates with:

- An increased understanding of the changing roles of school leaders
- An ability to identify strategies that can lead an educational institution in a positive direction for the benefit of children, teachers, school staff, families and communities
- A background in school leadership that reflects a diverse and flexible array of approaches and philosophies appropriate to today’s schools and communities
- Opportunities to extend previous leadership experience through research and collaboration
- Support in developing the self-confidence and vision necessary for providing leadership to others and creating partnerships between schools and communities

Graduates of this degree program who possess at least three years of K-12 teaching experience are eligible for certification as a school principal (with appropriate coursework) in the state of New Hampshire. Reciprocity through interstate compacts extends this certification to many additional states

Program of Study

REQUIRED COURSES		CREDITS
CAGS Core Component		
EP 7020	Collaborative Leadership	3
EP 7030	Transforming the Educational Agenda	3
EP 7040	Planning in Education and Human Services	3
EP 7050	Qualitative Methodology and Applied Research	3
EP 7060	Legal Issues in Policy Making	3
EP 7070	Contemporary Social Trends	3

School Principal Component

AD 5020	Staff Development and Evaluation	3
AD 5300	School Finance and Negotiation	3
AD 5330	Leadership in Curriculum Development and Assessment	3
ED 5060	Theories of Learning and Cognitive Development	3
ED 5570	Classroom Intervention and Special Education Strategies	3

Capstone Experience

AD 5800	Practicum in Educational Leadership: The Principalship	3
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Total for CAGS in Educational Leadership, K–12 School Principal Concentration **36**

K-12 SPECIAL EDUCATION ADMINISTRATION

Program Coordinator: Marcel Lebrun, PhD
(603) 535-2288, e-mail: mrlebrun@plymouth.edu

Candidates in the Special Education Administration concentration must have a minimum of three years teaching experience and possess certification in General Special Education K-12.

Program of Study

REQUIRED COURSES	CREDITS
CAGS Core Component	
EP 7020 Collaborative Leadership	3
EP 7030 Transforming the Educational Agenda	3
EP 7040 Planning in Education and Human Services	3
EP 7050 Qualitative Methodology and Applied Research	3
EP 7060 Legal Issues in Policy Making	3
EP 7070 Contemporary Social Trends	3

Special Education Administration Component

AD 5020 Staff Development and Evaluation	3
AD 5300 School Finance and Negotiation	3
ED 5060 Theories of Learning and Cognitive Development	3
CO 5430 Assessment and Consultation	3
SE 5760 Collaboration, Consultation, and Leadership in Special Education	3
SE 6040 Curriculum Development in Special Education	3

Capstone Experience

SE 7800 Special Education Leadership Practicum	3
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Total for CAGS in Educational Leadership, K-12 Special Education Administration Concentration 39

K-12 SUPERINTENDENT OF SCHOOLS

Program Coordinator: Christie Sweeney, EdD
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The School Superintendent certification option combines the competencies required for school principal certification with school leadership courses within the CAGS program. Graduates will be endorsed for certification as K-12 School Superintendents in New Hampshire.

Program of Study

REQUIRED COURSES	CREDITS
CAGS Core Component	
EP 7020 Collaborative Leadership	3
EP 7030 Transforming the Educational Agenda	3
EP 7040 Planning in Education and Human Services	3
EP 7050 Qualitative Methodology and Applied Research	3

EP 7060 Legal Issues in Policy Making	3
EP 7070 Contemporary Social Trends	3

Superintendent of Schools Component

AD 5020 Staff Development and Evaluation	3
AD 5300 School Finance and Negotiation	3
AD 5330 Curriculum Development and Assessment	3
EP 7100 School Labor Relations, Negotiations, and Personnel Management	3
EP 7200 School Building and Transportation	3
EP 7300 The Superintendency and School District Leadership	3

Learning Theory Component Courses (if not met previously)

ED 5060 Theories of Learning and Cognitive Development	3
ED 5570 Classroom Intervention and Special Education Strategies	3

Capstone Experience

EP 7800 Practicum in Educational Leadership The Superintendency	3
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Total for CAGS in Educational Leadership, K-12 Superintendent of Schools Concentration 45

DOCTOR OF EDUCATION (EdD)**EdD in Learning, Leadership, and Community**

Program Coordinator: Kathleen Norris, EdD
(603) 535-3023, e-mail: knorris@plymouth.edu

The EdD degree is designed for experienced practitioners and professionals, including teachers, administrators, counselors, and individuals in higher education, related community agencies, and organizations. Discovery, dissemination, and application of knowledge and research are integral to the program. Doctoral candidates are part of a learning community that supports intellectual challenge, collaborative inquiry, and focused scholarship.

Doctor of Education Program Objectives

The EdD degree will:

- enhance the leadership capacity of current and aspiring education professionals through the expansion of knowledge and the refinement of skills;
- foster inquiry and reflective practice on content, learning, leadership, pedagogy, social theory, and research;
- develop participants' knowledge and expertise through research addressing current practices;
- encourage creative scholarship, reflection, and inquiry on

- professional practice;
- examine global aspects of leadership and its impact on society;
- prepare participants to be system leaders and agents of change in their communities;
- support and advance the application of knowledge and research that contributes to educational innovation and reform in New Hampshire, the region, and the world.

The Cohort Model

Two cohort models exist: a year-round model and a summer model. Doctoral candidates in the year-round model take courses on campus throughout the calendar year; candidates in the summer cohort take courses on campus during summers only. Individuals, who live at a considerable distance from the campus, including international students, are encouraged to apply for the summer cohort.

The core courses, specialization coursework, and externship are sequenced across various terms. Doctoral candidates in the year-round cohort take one core course per term during the academic year and two to three courses in the summer. Doctoral candidates in the summer cohort take two courses each summer and conduct research, participate in practica or externships, or enroll in online courses during the academic year. Courses are offered in a variety of formats, including hybrid (a blend of classroom and computer-based learning), weekends, or weekday evenings. It is expected that students will typically complete the 60-credit program and dissertation within a four- to six-year period. The total time taken to complete the degree may not exceed eight years.

Admissions

Admission to the doctoral program is competitive and limited annually to one cohort of 12 highly qualified individuals. The EdD degree is open to individuals who possess a master’s degree and at least five years of successful experience in education and who have demonstrated evidence of or potential for professional leadership. Preference will be given to those with a Certificate of Advanced Graduate Studies (CAGS) or its equivalent.

Admission to the EdD degree program is based on the following:

- Submission of the Plymouth State University College of Graduate Studies online admissions application and application fee
- An official transcript from each institution attended (graduate and undergraduate) indicating, at minimum, a master’s degree
- A professional résumé or curriculum vitae
- A professional writing sample displaying research and writing skills
- Three letters of recommendation that provide evidence of five years of experience, collaboration, and leadership in schools or education-related organizations

- An on-campus interview conducted by the doctoral admissions committee

The application deadline for each cohort is April 15 of the year the cohort commences. The Admissions Review Board will examine completed applications, choose those to be interviewed, and select a cohort from the applicant pool.

Prerequisite coursework

- Qualitative Methodology and Applied Research
- A graduate-level course in Research Design

Program of Study

REQUIRED COURSES		CREDITS
Doctoral Core Courses (24 credits)		
EP 8000	Emerging Perspectives on Learning and Development	3
EP 8010	Program Evaluation: Theory and Practice	3
EP 8020	Ethical Leadership and Advocacy	3
EP 8030	Leadership in a Diverse World	3
EP 8040	Resource Planning and Stewardship	3
EP 8050	Vision: Synergy and Synthesis	3
EP 8060	Doctoral Seminar: Writing the Proposal	3
EP 8820	Externship	3–6

Concentration or Specialization (27 credits)

Students select coursework based on their professional goals, certification needs, and interests. In some instances, career goals may require a degree program in excess of 60 credits; therefore, consultation with an academic advisor prior to taking courses is essential. Course selection must have the approval of the academic advisor and the doctoral program coordinator.

The concentration or specialization component can be fulfilled with courses taken for the student’s Certificate of Advanced Graduate Studies (CAGS) or equivalent program. For example, students may apply courses from any of the Plymouth State University CAGS program options.

Dissertation (9 credits)

EP 8070	Dissertation Block I (Review of Literature)	3
EP 8080	Dissertation Block II (Methodology and Proposal Defense)	3
EP 8090	Dissertation Block III (Data Gathering and Analysis, Conclusions, and Dissertation Defense)	3

Total for EdD in Educational Leadership, Learning, Leadership, and Community **60**

Comprehensive Examinations

At the conclusion of doctoral core coursework, candidates will take comprehensive exams, written examinations grounded in the essential learning from each of the core courses.

The comprehensive exams consist of two portions. The first section is a proctored examination that is administered in a secure setting. The second section consists of a take-home set of questions that focus on the student's ability to apply concepts to educational problems and settings.

The Dissertation

The purpose of the dissertation is to produce knowledge, insight, or new methods in the candidate's field of specialization. It may be built on an original concept, or it may replicate and extend an earlier study for the purpose of correcting errors, eliminating shortcomings, or enhancing or clarifying it. The dissertation must be meaningful and provide evidence of familiarity with existing research in the field. The dissertation should display mastery of and the ability to apply research findings, new analyses, syntheses, interpretations, and other research methods and procedures in order to contribute to the improvement of practice in leadership.

Continuous Enrollment

All candidates are required to maintain enrollment throughout the dissertation process by registering for at least one course per term or paying the continuation fee. This requirement begins with the first term after the one in which the comprehensive examination has been passed and applies to every term thereafter until all degree program requirements are completed.

Awarding the Doctor of Education Degree

The assessment for the award of the EdD degree is based on four components: coursework, the comprehensive examination, the dissertation with proposal and final defenses, and the final approval by the dissertation committee.

DOCTORAL PARTNERSHIPS

ARGOSY UNIVERSITY OF SARASOTA

PSU has an articulation agreement with the Argosy University of Sarasota doctoral program for CAGS candidates interested in pursuing an EdD in Educational Leadership or Curriculum and Instruction. This collaborative venture combines PSU's core CAGS courses, distance learning, and courses in residence at Argosy University of Sarasota in Florida. Argosy University of Sarasota has approximately 1,500 graduate students and is accredited by the North Central Association of Colleges and Schools.

For additional information about doctoral studies at Argosy University contact Kathleen Norris, EdD, at knorris@plymouth.

edu or visit the Argosy University Web site at argosy.edu and check the Sarasota location.

FRANKLIN PIERCE UNIVERSITY

PSU has a partnership agreement with Franklin Pierce University for CAGS candidates interested in pursuing a Doctor of Arts (DA) in Leadership. This collaboration combines PSU's core CAGS courses and FPU courses taken with a cohort group in New Hampshire.

During the academic year, courses are offered on a weekend schedule with course meeting dates occurring approximately once per month during the term, in addition to an online course component. Internships and externships may be taken during the summer; special topics courses taught in the summer will be offered on a variable time schedule. Classes are held at Franklin Pierce University in Concord/Manchester, Portsmouth, and Lebanon, NH, in cohort groups.

The estimated time to degree completion is three to four years, with the final year devoted to dissertation work. For additional information visit the Franklin Pierce Web site at franklinpierce.edu; e-mail James Lacey at jwlacey@gmail.com, or call (800) 437-0048.

Graduate Program Coordinators and Advisors

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MASTER OF EDUCATION

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CERTIFICATE OF ADVANCED GRADUATE STUDIES (CAGS)**Arts, Leadership, and Learning**

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Graduate Courses and Descriptions

GRADUATE COURSE CODES

AD	Administration
AE	Art Education
AN	Anthropology
AR	Art
AT	Athletic Training
BI	Biology
BU	Business
CE	Computer Education
CH	Chemistry
CO	Counseling
EC	Economics
ED	Education
EE	Experiential Education
EN	English
EP	Educational Leadership
ESP	Environmental Science and Policy
ER	Early Childhood Education
EV	Environmental Science
FR	French
GE	Geography
HH	Health and Healing
HL	Health Education
HI	History
HP	Health Promotion
HPR	Historic Preservation
HS	Heritage Studies
IN	Integrated Arts
LL	Language and Linguistics
LM	Library Media
ME	Music Education
MG	Mathematics
MT	Meteorology
MU	Music
ND	Neurodevelopmental Approach to Teaching
NS	Natural Science
OH	Organizational Health
PA	Project Adventure
PE	Physical Education
PH	Physics
PO	Political Science
PS	Psychology
RL	Reading and Writing
SE	Special Education
SO	Sociology
SP	Spanish
SY	School Psychology
TH	Theatre

ADMINISTRATION

AD 5010 ORGANIZATIONAL LEADERSHIP IN SCHOOLS 3 CREDITS

Students in the educational leadership program are strongly encouraged to take this course first in the educational leadership course sequence. Roles and functions of administrators in elementary and secondary schools will be addressed. A variety of theories will be analyzed and applied in the context of the dynamic milieu, personal and group biases, and the multivariate issues facing organizational life in schools.

AD 5020 STAFF DEVELOPMENT AND EVALUATION 3 CREDITS

Major functions concerning the supervision of staff in a school setting, including the selection, orientation, and development of staff members, will be covered. Theories and techniques for promoting a positive school climate will be explored and applied. Alternative approaches to assessing and enhancing a staff's instructional competence will be examined. Prerequisite: AD 5010.

AD 5030 RESEARCH DESIGN FOR THE PROFESSIONS 3 CREDITS

This course is designed for students in the Educational Leadership and Counseling programs. Students will gain knowledge of statistical concepts, including reliability and validity, scales of measurement, measures of central tendency, indices of variability, shapes and types of distributions, and correlations. Each student will develop a complete proposal for a program in their profession, including a needs assessment, data collection design, review of related literature, and plans for implementation and evaluation.

AD 5300 SCHOOL FINANCE AND NEGOTIATION 3 CREDITS

The development of school budgets that support the planning processes within a school setting will be covered. Other relevant topics will include cost effectiveness, revenue sources, communication with the public, capital projects, state and federal programs, using the budget to promote excellence in the schools, and principles and practices in collective bargaining. Prerequisite: AD 5010.

AD 5330 LEADERSHIP IN CURRICULUM DEVELOPMENT AND ASSESSMENT 3 CREDITS

Leading the participatory process for developing curricula in schools will be addressed. The relationship of philosophy, a school's identity, and mission to curricula is emphasized. Included are strategies for developing, assessing, and revising curricula as well as a review of recent research and trends. The course is intended for experienced educators who currently fill or aspire to the roles of school principal, team leader, or department chair. Prerequisite: AD 5010; to be taken concurrently with or after ED 5060.

AD 5520 NEGOTIATING, COLLABORATING, AND LEADING IN TODAY'S WORLD 3 CREDITS

This course examines the dynamics, constraints, and skills needed in negotiation, collaboration, and leadership. It focuses equally on using negotiation in business planning and in dispute resolution. Theories of negotiation are examined through current literature, and specific techniques are taught through simulated exercises. The course is drawn from the fields of business, law, psychology, administration, and communication. Also offered as BU 5520.

AD 5560 SPECIAL TOPICS IN EDUCATIONAL LEADERSHIP 1-3 CREDITS

An in-depth study of a particular topic, contemporary issue, or concern will be the focus of this course. It will be taught by a specialist within the field being studied or as an alternative methodology. A faculty member will coordinate a series of guest speakers who will meaningfully address the topic. Since topics vary, the course may be repeated with permission of the instructor.

AD 5700 SCHOOL LAW 3 CREDITS

Federal and state laws that apply to school systems, educational programs, and personnel will be discussed. Also covered will be the legal prerogatives available to the administrator and local boards of education. Consideration of constitutional, statutory, and case-law foundations of education systems, and the school administrator's role, will be discussed. Prerequisite: AD 5010.

AD 5800 PRACTICUM IN EDUCATIONAL LEADERSHIP: THE PRINCIPALSHIP 3 CREDITS

This course will provide a practical encounter with the administrative practices, strategies, and policies presently used in the public schools. Practicum visitations required as part of the course will be especially designed to match the experience, occupational aspirations, and interests of the student. Conference with the instructor and meetings with fellow students will provide for exchange of ideas and reports of observations. AD 5010 and AD 5020 recommended but not required. It is recommended that this course be taken near the end of the candidate's program.

AD 5830 EDUCATIONAL PLANNING AND PROBLEM SOLVING 3 CREDITS

An overview of sound planning and evaluation models as applied to specific educational problems. Discussion will include collaborative strategies to implement effective change within the school setting. This course should be taken as the final course in either the MEd in Educational Leadership or the School Principal K-12 Professional Certification.

AD 5910 INDEPENDENT STUDY IN EDUCATIONAL LEADERSHIP 1–3 CREDITS

This course provides the enrichment of the background of students in education through the pursuit of a special topic pertinent to their interests and abilities. This offers a chance for an in-depth study of a problem in the field of education. Consent of a faculty supervisor, the department chair, and the associate vice president for the College of Graduate Studies is required.

ART EDUCATION

AE 5020 CONTEMPORARY CHALLENGES IN ART EDUCATION 1–3 CREDITS

This course provides the opportunity for immersion in a specialized topic or area of study concerning selected art form(s), art history, multicultural arts traditions, special education and the arts, the arts and technology, or art education. Guest artists, educators, and professionals working in the field of the arts will be invited as guest instructors to share their experiences and expertise, as well as faculty members at PSU.

AE 5050 ELEMENTARY METHODS AND MATERIALS IN ART EDUCATION 3 CREDITS

This course will provide the opportunity to develop an in-depth understanding of the correlative roles of children's holistic learning, artistic growth, and development, which will provide the foundation for the study and application of constructivist and learner-centered approaches to instructional planning and dialogic pedagogy applied to art education. Study will encompass content of undergraduate courses AE 2000 and AE 3050, and extend to an applied research project and expanded theoretical reading in art education. Readings, research, discussion, studio production, and classroom observations will provide the framework for the study of art education as a discipline incorporating studio production, aesthetics, art history, and criticism. Art materials health and safety regulations will be examined. A 20-hour school observation component is required.

AE 5060 PEDAGOGY AND PLANNING IN SECONDARY LEVEL ART EDUCATION 3 CREDITS

This course provides extended study of holistic methodology and inquiry based on learning for art education and diverse student populations, with an emphasis on adolescent development and instructional planning at the middle and high school levels. Components include community and citizenship, multicultural education, diversity issues, and inclusion. Standards-based unit planning at the secondary level will address interdisciplinary and multicultural social themes. A 20-hour school observation and teaching component is required. Study will encompass content of undergraduate course AE 3060 and extend to an applied research project and expanded theoretical readings in art education.

AE 5410 ART EDUCATION INTERNSHIP 1–9 CREDITS

This is the culminating public school field-based teaching experience for MAT Art Education majors that fulfills the student teaching requirements for New Hampshire K–12 teacher certification in art education. The internship is a continuous, full-time (five days per week) experience at both elementary and secondary levels during which, after a period of structured observation, students gradually assume responsibility for a full range of visual art teaching activities encountered in a school situation, thereby demonstrating the appropriate professional skills and attitudes essential for successful teaching of diverse populations of students. The internship is conducted under the supervisory guidance of certified K–12 school art faculty and PSU Art Education Clinical Faculty. Required seminars complement the experience. Falls and springs. Prerequisite: completion of all course requirements for the MAT in Art Education. All the policies related to the undergraduate and graduate field experience apply to this course.

AE 5560 SPECIAL TOPICS IN ART EDUCATION 1–3 CREDITS

This course provides a specialized offering by a specialist in a specific art education field. Students will participate in an intensive hands-on education experience. A departmental faculty supervisor and technician will be assisting the specialist in guiding the students in a focused environment. Students may repeat this course when offered under a different topic title. Summers.

AE 5700 CURRICULUM DEVELOPMENT AND ASSESSMENT IN THE ARTS 3 CREDITS

Curriculum design, implementation, and assessment for curriculum developers, supervisors, educators, and students in the arts will be addressed. The course provides an introduction to the goals, history, content, theory, and practice of arts curriculum in public education as an independent discipline and an integrated component of a child's education. Emphasis is placed on state and national standards in the arts and reflects state mandates on arts assessment in K–12 public education. Participants will develop a working knowledge of the field through the development of balanced, discipline-based curriculum and assessment models for the arts which may be adapted to specific school sites. Summers.

ADULT LEARNING

AL 5060 PSYCHOLOGY OF ADULTHOOD 3 CREDITS

This course takes a life-span developmental approach to adulthood in contemporary American society and includes the major theoretical perspectives regarding developmental transitions and age-related tasks. The course seeks to acquaint the student with seven broad themes of adult development: Theory; Research; Changes that occur within oneself throughout adulthood (e.g.,

physical, cognitive, health, social); Personality characteristics; Meaning in life; Stages and pointers for a successful journey; and Death and dying. Students use their own life experiences as a context for creating understanding in these seven areas.

AL 5070 LEARNING IN ADULTHOOD 3 CREDITS

This course focuses on the nature and process of learning in adulthood, especially in formal learning situations in business, industry, adult basic education, and adult higher education. Emphasizes the concept of learning how to learn and the ways in which adults function in independent learning situations. Examines theory, research, and practice from several different discipline perspectives to answer the question: "How do adults learn?"

AL 5080 TEACHING ADULTS 3 CREDITS

This course builds on adult learning theory and examines the role of the instructor as the facilitator of learning. Major focus is on incorporating strategies for encouraging active learning, collaboration, self-directed learning, and self assessment by learners into a variety of learning situations. Class participants will be involved in demonstrating teaching methodologies and receiving feedback from group members.

AL 5090 PROGRAM DESIGN AND EVALUATION 3 CREDITS

This course addresses a broad spectrum of program development ranging from an individual course to a complete program of major learning activities conducted over a period of time. Participants will design programs based on their own special interests, for example, adult higher education, business and industry training, adult basic education, etc. Major emphasis will also be placed on designing program evaluations tailored to meet specified goals.

AL 5130 EDUCATING FOR ADULT LITERACY 3 CREDITS

This course examines current theory and best practice related to adults' development of functional literacy skills. The purpose of this course is to offer useful hands-on experiences and strategies for teaching literacy skills as well as the theoretical background and relevant research in the literacy field that will assist in understanding and appreciating the problems of adults with limited literacy. Understanding the problem of illiteracy requires knowledge about the sociological effects of schooling, the effects of poor education, issues of resistance to education, learner motivation, and the physiological, psychological, and societal barriers and incentives related to the successful development of literacy skills.

AL 5140 THE LEARNING WORKPLACE 3 CREDITS

This course deals with the professional learning needs and priorities of the workplace. It examines the variety of ways in which employees and their managers gain new knowledge and skills as part of their professional growth. Particular empha-

sis is given to the concept of the learning organization: its characteristics, how the concept of 'learning organization' is implemented in different types of organizations, the benefits of a learning organization to both the employee and the organization, and the role that the professional educator or trainer plays in building a learning organization. Also included is the role knowledge management plays in the development of the learning organization.

AL 5150 LEARNING AND TEACHING STYLES 3 CREDITS

This course examines the concept of learning style, or cognitive style, in relation both to teaching and learning. Participants will take learning style inventories as part of the class and will be involved in practical applications of learning style concepts through the creation of learning activities, assignments, geared to the particular audience they teach. Emphasis will be on adolescent and adult learning but will be applicable to all levels and ages. In addition, teaching styles will be examined.

ANTHROPOLOGY

AN 5140 SPECIAL TOPICS IN ANTHROPOLOGY 3 CREDITS

Specialized topics chosen for Graduate Seminar by individual faculty. Scheduled as needed.

AN 5410 NATIVE AMERICANS: PAST AND PRESENT 3 CREDITS

This course traces the history of native cultures in North America with an accent on the northeastern region for teachers and other educators. Various Indian cultures will be described in traditional anthropological categories such as language, kinship, religion, politics, and subsistence. Cultural change, relativism, ethnocentrism, and social conflict are some of the topics used to understand their culture from the past into the present.

AN 5910 INDEPENDENT STUDY IN ANTHROPOLOGY 1-3 CREDITS

Independent study provides students with the opportunity to round out their background in anthropology through reading and research that supplements previous coursework in the field. A research paper, periodic conferences, and an oral examination may be required. Consent of a faculty supervisor, the department chair, and the associate vice president for the College of Graduate Studies is required.

ART

AR 5200 SURVEY OF ARTS PROJECTS, PROGRAMS, AND TECHNOLOGY 3 CREDITS

An overview of art projects, programs and technologies, this survey course acquaints the student with a wide variety of integrated arts experiences that have been successfully

implemented into a wide range of educational, cultural, and recreational settings. Commonalties between projects and programs will be examined, as will the qualities that make them unique. The latest in art technologies will also be surveyed in order to expose students to new possibilities in arts integration through technology.

AR 5300 THE ARTS IN SOCIETY 3 CREDITS

An exploration of the relationship of the creative artist and the arts (i.e., visual arts, theatre, and music) to society is addressed. The changing role of the arts will be considered within the context of the socioeconomic, historical, political, and cultural forces that shape them. Particular attention will be given to the societal values that mold and are expressed by the arts in a range of cultures, both East and West. The role of the artist as a force in cultural change also will be studied. Summers.

AR 5560 SPECIAL TOPICS IN ART 3 CREDITS

This course provides a specialized offering by an off-campus specialist in a specific studio method. Students will participate in an intensive hands-on studio experience running for six days and five evenings. A departmental faculty supervisor and technician will be assisting the specialist in guiding the students in a focused environment. Students may repeat this course when offered under a different topic title. Summers.

AR 5800 STUDIO/DESIGN TEACHING APPRENTICE 3-4 CREDITS

This course provides the opportunity for a qualified student to assist the area coordinator, or with teaching and studio responsibilities for one undergraduate course at the 1000- to 4000-level in the student's area of concentration. The student will have designated studio/lab and instructional responsibilities in the class and will participate with the faculty member in regular discussions concerning the course content, student needs, studio/lab maintenance, and instructional methodology. The student will receive mentorship in their area of studio mastery and have the opportunity to develop a personal body of work. Offered fall and spring. Student must present a portfolio of work and be interviewed and approved by the area coordinator, with additional approval of MAT in Art Education coordinator, and chair of the department. Student must have earned a BA or BFA in Art or BS in Art Education.

AR 5910 INDEPENDENT STUDY IN ART 1-3 CREDITS

Advanced work in a limited area of studio art, art history, or art education, selected and carried out in consultation with an art faculty advisor. Consent of a faculty supervisor, the department chair, and the associate vice president for the College of Graduate Studies is required.

ATHLETIC TRAINING

AT 5000 PSYCHOMOTOR SKILLS IN ATHLETIC TRAINING 3 CREDITS

This course will examine the psychomotor skills that the entry-level athletic trainer must possess to effectively prevent and treat the injuries of athletes and others involved in physical activity.

AT 5010 ORTHOPEDIC ASSESSMENT I 3 CREDITS

A systematic approach to orthopedic assessment will be examined. Each body section will be studied individually, stressing the anatomy, myology, neurology, physiology, etiology, pathology, and assessment techniques. This course will cover the lower extremity, trunk, abdomen, and lumbar spine. Assessment techniques will be presented and discussed in a didactic manner as well as applied through lab experiences.

AT 5020 ORTHOPEDIC ASSESSMENT II 3 CREDITS

A systematic approach to orthopedic assessment will be examined. Each body section will be studied individually, stressing the anatomy, myology, neurology, physiology, etiology, pathology, and assessment techniques. This course will cover the upper extremity, cervical spine, head, and face. Assessment techniques will be presented and discussed in a didactic manner as well as applied through lab experiences.

AT 5100 ATHLETIC TRAINING ADMINISTRATION 3 CREDITS

This course will examine the knowledge, skills, and values that the entry-level athletic trainer must possess to develop, administer, and manage a health care facility and associated venues that provide health care to athletes and others involved in physical activity. Additionally, this course will provide the knowledge, skills, and values that an entry-level athletic trainer must possess to understand professional responsibilities, avenues of professional development, and national and state regulatory agencies and standards in order to promote athletic training as a professional discipline and to educate athletes, students of athletic training, the general public, the physically active, and associated individuals.

AT 5200 PHARMACOLOGY IN SPORTS MEDICINE 2 CREDITS

This course will examine knowledge, skills, and values required of the entry-level athletic trainer on pharmacological applications including awareness of the indications, contraindications, precautions, and interactions of medications, and governing regulations relevant to the treatment of injuries to and illnesses of athletes and others involved in physical activity.

AT 5250 THERAPEUTIC EXERCISE IN ATHLETIC TRAINING 3 CREDITS

This course will examine the knowledge, skills, and values the entry-level athletic trainer must possess to plan, implement, document, and evaluate the efficacy of therapeutic exercise programs for the rehabilitation and reconditioning of the injuries

and illnesses of athletes and others involved in physical activity. Assessment techniques will be presented and discussed in a didactic manner as well as applied through lab experiences.

AT 5255 INTRODUCTION TO BURDENKO CONDITIONING 1 CREDIT

This course will identify the principles for, and the relationship between, water and land exercises. Participants will learn how to use water as a modality to develop the qualities of flexibility, balance, endurance, strength, speed, and coordination.

AT 5300 GENERAL MEDICAL 3 CREDITS

This course will examine the knowledge, skills, and values that the entry-level athletic trainer must possess to recognize, treat, and refer, when appropriate, the general medical conditions and disabilities of athletes and others involved in physical activity.

AT 5500 MODALITIES IN SPORTS MEDICINE 3 CREDITS

This is a comprehensive course in the theory and use of therapeutic modalities in a sports medicine setting. Principles of neurophysiology, pain control, and the electromagnetic and acoustic spectra will be discussed and applied through lab experiences.

AT 5600 RESEARCH DESIGN IN HEALTH SCIENCES 3 CREDITS

This course is designed to develop skills in research design, as well as to enhance the student's understanding of literature searching, reading, and synthesizing of information in health science. In this course, students will conduct a review of literature to explore potential research topics. Students will develop a research question in preparation for their research experience.

AT 5610 STATISTICS IN HEALTH SCIENCES 3 CREDITS

This course is designed to be a continuation of Research Design in Health Sciences and will further develop skills in statistical design and research procedures. This course will outline the procedures for piloting and collecting data, and will provide guidelines for writing results, discussion, and the development of a paper acceptable for submission for publication.

AT 5700 INSTRUCTIONAL STRATEGIES IN BURDENKO CONDITIONING 1-3 CREDITS

Students will learn and apply the instructional knowledge base on how to plan, implement, and evaluate comprehensive conditioning programs based on the Burdenko Method of conditioning. This method identifies the principles for, and the relationship between, water and land exercises. Students will learn how to use water as a modality to develop the qualities of flexibility, balance, endurance, strength, speed, and coordination.

AT 5710 BURDENKO CERTIFICATION PART I 3 CREDITS

The Part I (level 1, 2, 3) core program introduces the student to the philosophy of the Burdenko Method both on land and in

water. Techniques are introduced that exemplify, illustrate, and expand upon that philosophy. This learning phase is accomplished through written material, demonstrations, and active participation. Active practice occurs both in large groups and pairs, under the supervision of the instructor. The student is then asked to teach that sequence to his or her partner and the instructor. The student will then receive feedback from the partner and the instructor. It is expected that the student will prepare for the practical and written exams. Prerequisite: anatomy, physiology, and kinesiology coursework.

AT 5720 BURDENKO CERTIFICATION PART II 3 CREDITS

Part II (levels 4, 5, 6) expands on the techniques utilizing more complex movement patterns both on land and in water relative to rehabilitation, conditioning, and training. This learning phase is accomplished through written material, demonstrations, active participation, and feedback. Active practice occurs both in large groups and pairs, under the supervision of the instructor. The student is then asked to teach that sequence to his or her partner and is given feedback by both the partner and the instructor. Prerequisite: Burdenko Certification Part I.

AT 5730 BURDENKO CERTIFICATION PART III 3 CREDITS

Part III certification is designed to train a student who is already currently certified in Burdenko Part I and Part II, and committed to become a certifying instructor of the method. Upon completion and certification of this course, the student would be able to host and teach certification level programs for both Part I and Part II. Prerequisite: Burdenko Certification Parts I and II.

AT 5740 AQUATIC EXERCISE FOR THERAPEUTIC INTERVENTION AND SPORTS TRAINING AND CONDITIONING 3 CREDITS

This course provides students with the opportunity to explore the use of water as a therapeutic, conditioning, and training modality. Principles of hydrostatic pressure, buoyancy, drag, and turbulence will be introduced and applied in this student-centered, active learning course. Therapeutic, conditioning, and training progression will be introduced from the more elementary exercises for rehabilitation and reconditioning through the introduction of aquatic exercises for strength and conditioning. Prerequisite: anatomy and kinesiology coursework.

AT 5750 PRACTICUM IN ATHLETIC TRAINING I 3 CREDITS

Practicum in Athletic Training is designed to provide the graduate student in athletic training some hands-on experiences with which to understand, recognize, evaluate, and treat athletic injuries and illnesses using the range of skills required of an athletic training professional. Experience is completed under the direct supervision of a certified athletic trainer.

AT 5760 PRACTICUM IN ATHLETIC TRAINING II 3 CREDITS

Practicum in Athletic Training is designed to provide the graduate

student in athletic training some hands-on experiences with which to understand, recognize, evaluate, and treat athletic injuries and illnesses using the range of skills required of an athletic training professional. Experience is completed under the direct supervision of a certified athletic trainer.

AT 5770 PRACTICUM IN ATHLETIC TRAINING III 3 CREDITS
Practicum in Athletic Training is designed to provide the graduate student in athletic training some hands-on experiences with which to understand, recognize, evaluate, and treat athletic injuries and illnesses using the range of skills required of an athletic training professional. Experience is completed under the direct supervision of a certified athletic trainer.

AT 5780 PRACTICUM IN ATHLETIC TRAINING IV 3 CREDITS
Practicum in Athletic Training is designed to provide the graduate student in athletic training some hands-on experiences with which to understand, recognize, evaluate, and treat athletic injuries and illnesses using the range of skills required of an athletic training professional. Experience is completed under the direct supervision of a certified athletic trainer.

AT 5790 ADVANCED PRACTICUM IN ATHLETIC TRAINING 1–6 CREDITS
Practicum in Athletic Training is designed to provide the graduate student in athletic training a variety of opportunities to expand their knowledge of the profession. The practicum coordination, content, and requirements are determined by the student's advisor. Repeatable.

AT 5800 CURRENT ISSUES IN ATHLETIC TRAINING 3 CREDITS
This course was designed to provide a forum for discussion of contemporary issues in athletic training. Presentations will be made by students, instructor, and guest lecturers.

AT 5850 PERFORMANCE ENHANCEMENT SPECIALIZATION 3 CREDITS
This course is based on the National Academy of Sports Medicine certification program for the Performance Enhancement Specialist. The curriculum will follow the required content material to prepare each student to take the Performance Enhancement certification exam upon completion of the course.

AT 5875 SPECIAL TOPICS IN ATHLETIC TRAINING 1–3 CREDITS
An in-depth study of a particular topic, contemporary issue, or concern in athletic training. The course will be taught by a specialist in the field related to the topic. May be repeated with a different topic.

AT 5900 DIRECTED RESEARCH 1–3 CREDITS
This course will give students valuable experience in research design, data collection, or analysis by playing an integral role in a faculty sponsored research project. Repeatable.

AT 5910 INDEPENDENT STUDY 1–6 CREDITS
This course is designed to provide enrichment to the background of students in athletic training through the pursuit of a special topic pertinent to their interest and abilities. This course provides an opportunity for in-depth study of a problem in the field of athletic training. The consent of a faculty supervisor is required.

AT 5950 GRADUATE THESIS 1–6 CREDITS
Students select a topic for study in consultation with their program advisor and related faculty. A timeline, thesis proposal, and defense are outlined. Two copies of the thesis must be submitted to Lamson Library; bound copies are presented to the thesis committee. Students will be required to enroll in AT 5950 Thesis every term until thesis is complete. Repeatable. P/NP.

BIOLOGY

BI 5100 BIOLOGY COLLOQUIUM 1 CREDIT
This course is comprised of lectures featuring prominent speakers from a variety of institutions.

BI 5110 CELL STRUCTURE AND FUNCTION 3 CREDITS
Addresses the diversity of form and function found in the basic units of life, the cells. The first segment centers on the various techniques, especially electron microscopy, which are used to study microscopic anatomy. The components, or organelles, that comprise a "generalized cell" are examined and their functional relationships discussed. The second segment centers on the structural differences between tissues of the body (classical histology). Finally, this knowledge of cell and tissue structure will be employed to understand organs and organ systems. This course will not be purely morphological. The development and functional properties of these systems will be examined. There will be a laboratory component in this course. Falls.

BI 5120 BIOTECHNOLOGY 3 CREDITS
This course is an exploration of the use of living organisms to produce products beneficial to human kind, the application of biological organisms to technical and industrial processes, and the use of "novel" microbes that have been altered or manipulated by humans through techniques of genetic engineering. This is a laboratory-oriented course. Falls.

BI 5130 ECOLOGY 3 CREDITS
Fundamental ecological concepts that illustrate the complex interrelationships of living organisms with each other and with the non-living environment will be the focus of the course. Laboratory time used for fieldwork, experimentation, and analysis of data will be incorporated. Graduate students will have additional coursework or projects equivalent to graduate level study. Falls.

BI 5140 ANIMAL BEHAVIOR 3 CREDITS
The study of animal behavior offers a unique opportunity to understand the relationship between ecology, evolution, physiology, populations, and individual organisms. Examines the influence of genetics and environment on animal behavior. Outdoor and laboratory investigations test specific student or instructor generated hypotheses concerning the causal mechanisms underlying behavior. Falls.

BI 5150 ANIMAL PHYSIOLOGY 3 CREDITS
This course will examine the various systems of the body including the respiratory, cardiovascular, digestive, and excretory systems using a comparative approach. Discusses the control of these systems and behavior by the nervous and endocrine systems. Inherent is an analysis of an interaction between the mechanisms of homeostatic regulation and the environment. Laboratory investigations using local animals illustrate some of the principles outlined in lecture through the use of student or instructor-generated hypothesis testing and using modern equipment including computers, data acquisition units, amplifiers, transducers, stimulators, and activity monitors. Spring of even years.

BI 5160 NEUROBIOLOGY 3 CREDITS
Examines the functioning of the nervous system in vertebrates and invertebrates. The fundamental principles underlying membrane potentials, action potentials, and conduction are followed by mechanisms of communication between single cells and groups of cells. Different aspects of sensory, motor, and integrative physiology are discussed and the role of specific parts of the brain is explored. The laboratory portion is used to demonstrate certain principles and phenomena discussed in lecture. The laboratory involves a series of student-driven mini-projects. Students use computers, Data Acquisition Units, oscilloscopes, manipulators, transducers, and amplifiers to test student or instructor generated hypotheses. Spring of odd years.

BI 5230 LANDSCAPE ECOLOGY 3 CREDITS
The study of ecological principles at the landscape scale. Topics to be examined include the problem of scale, how models are used in landscape ecology, what biotic and abiotic features are associated with the pattern of the landscape, what processes take place in the landscape, and what the applications of landscape ecology are. Course will include both lecture and practical experience in landscape ecology.

BI 5350 CONSERVATION BIOLOGY 3 CREDITS
Conservation Biology investigates the causes and consequences of loss of biodiversity. Species are first placed into their ecological context. Then global and regional patterns of species extinction are discussed. The mechanisms that precipitate loss and eventually cause extinction are examined through modeling and statistical exercises. Students share in the responsibility for

covering the material by presenting selected topics.

BI 5370 BEHAVIORAL ECOLOGY 3 CREDITS
This graduate seminar focuses on the interface between behavior and fitness. Several categories of behavior are covered through presentations, reading of primary literature, and discussion. The topics include but are not limited to optimal foraging, mating systems and mate attraction, social organization (including eusociality), predator-prey interactions, and learning.

BI 5380 AVIAN ECOLOGY 3 CREDITS
Avian Ecology is a field-oriented course that focuses on bird interactions with each other and their environment as a medium for understanding field ecological research. Students become familiar with local bird identification, give presentations on selected topics, assist in banding birds, and carry out their own individual research projects under the guidance of a researching avian ecologist.

BI 5560 SPECIAL TOPICS IN BIOLOGICAL SCIENCES 1-3 CREDITS
Lectures on special topics in selected areas of the biological sciences. May be repeated in the same or separate terms, as topics vary, to a maximum of nine graduate hours.

BI 5810 UNIVERSITY BIOLOGY TEACHING 1 CREDIT
A course designed for graduate students interested in learning more about teaching biology effectively at the university level. The format of the course will primarily be discussion-oriented with contributions from faculty both in and outside of the Department of Biological Sciences. Students should either be currently teaching or have taught at the college level. Topically the course will cover three areas: teaching and learning, the academic job market, and faculty life.

BI 5900 GRADUATE SEMINAR: BIOLOGY 1 CREDIT
Specific topics vary from year to year depending upon the interests of the faculty and the students enrolled.

BI 5910 INDEPENDENT STUDY: BIOLOGY 1-4 CREDITS
Original research done in an area of the student's choosing in conjunction with a sponsoring faculty member. Results must be presented at a scientific conference.

BI 5950 THESIS RESEARCH: BIOLOGY 6-12 CREDITS
Supervised execution of thesis research. Prerequisite: permission of advisor after submission of a thesis proposal to committee.

BUSINESS

BU 5050 BUSINESS GRADUATE INTERNSHIP 3 CREDITS
 A supervised internship in business for graduate students. The purpose is to gain meaningful work experience and apply knowledge learned in previous coursework to the on-the-job situation. The internship placement must provide a new learning experience for the student. A work journal, reading in the field, and a report on work experience are required. Permission of internship coordinator, department chair, and the graduate program coordinator required. Prerequisite: nine graduate credits in business.

BU 5110 MANAGING ORGANIZATIONAL BEHAVIOR 3 CREDITS
 A review of theory and research findings in the field of organizational behavior, with emphasis on applications by practicing managers. Topics to be covered include perception, motivation, leadership, communication, group dynamics, conflict management, and organization theory. Pedagogical techniques include case analysis, presentations, role plays, and other experiential activities. Prerequisite: behavioral science competency.

BU 5115 CREATING ORGANIZATIONAL HEALTH 3 CREDITS
 This course is designed as an intensive introduction to the theories, methods, and tools for building wellness concepts into the strategic planning process of organizations. The class will define the future of wellness and develop holistic principles leading to organizational health. At the completion of the course students will have an understanding of ways to institute a new wellness paradigm into organizational design.

BU 5120 FINANCIAL ANALYSIS AND DECISION MAKING 3 CREDITS
 A complete corporate financial management course. Content covers the classic areas of valuation, capital structure, and budgeting, as well as more specialized financial topics. Online version incorporates online course materials and exercises. Prerequisite: BU 5190 or permission of the instructor.

BU 5160 SEMINAR IN MANAGING HUMAN RESOURCES 3 CREDITS
 A review of contemporary techniques, practices, and research results in the area of human resource management, with emphasis on the perspective of the practicing manager. Topics to be covered include recruitment, selection, training and development, performance appraisal, compensation, labor relations and collective bargaining, occupational safety, and health and employee rights within the context of federal and state legal regulation. The case method is used extensively. The goal is to assist the line or staff manager in effective utilization and implementation of human resource policies and practices.

BU 5165 TRAINING AND DEVELOPMENT 3 CREDITS
 This course provides the application of learning theories and instructional development to the education and training of employees. Topics include instructional design, strategy, technology, and the implementation, evaluation, and management of training in an organizational environment.

BU 5190 ACCOUNTING FOR MANAGERS 3 CREDITS
 Budgetary accounting and cost accounting including profit planning and control systems, budget process, cost systems, and their managerial applications. Prerequisite: demonstration of competency in financial accounting.

BU 5210 ECONOMIC ANALYSIS 3 CREDITS
 Today's business climate demands managers who can make decisions involving the best use of an organization's scarce resources under conditions that change rapidly. This course demonstrates the power of problem-solving insights and uses a cross-functional approach. Topics to be covered include strategic pricing using game theory, forecasting techniques and demand estimation, cost analysis, linear programming, and optimization under various market structures. Prerequisites: macroeconomics, microeconomics, and statistics competencies, or permission of the instructor.

BU 5220 THE LEGAL ENVIRONMENT OF BUSINESS 3 CREDITS
 A basic understanding of legal problems is expanded, analytical ability is developed, and an awareness of the presence of legal problems that surround the businessperson is explored. Freedom of choice, taxation, stockholder status, acquisitions and divisions, antitrust, employment, administrative law, and bankruptcy are covered as time allows.

BU 5225 CURRENT ISSUES IN EMPLOYMENT LAW 3 CREDITS
 A study of legal issues that affect employers and employees in the modern American workplace, including wage and hour regulation, employment discrimination, sexual harassment, workers' compensation, disabled employee protection, covenants not to compete, whistleblowers' protection, and union representation.

BU 5230 MANAGEMENT OF ORGANIZATIONAL CHANGES 3 CREDITS
 A study of the nature and scope of organizational change and development, from the perspective of the practicing manager. Consideration is given to the need for and role of consultants in this process, be they internal or external to the organization. Procedures to be discussed include survey research, job enrichment, management by objectives, team building, and program evaluation. The case method will be used. Emphasis is on the role of the practicing manager in the control and facilitation of organizational change.

BU 5240 SEMINAR IN ORGANIZATIONAL COMMUNICATION 3 CREDITS

An in-depth study of the variables affecting the transmission of internal and external organizational communication. While focusing on audience analysis, message transmission, and business and media relations, critical skills such as listening, speaking, writing analysis, and an understanding of nonverbal, visual, and mass communication, will be developed. Practical topics will include: organizational systems, conference organization, metacommunications, public relations, improved listening skills, and presentational speaking.

BU 5400 SURVEY OF ISSUES IN HEALTH CARE ADMINISTRATION 3 CREDITS

This course serves as the introduction to the Health Care Administration certificate program. In this course, students will be able to recognize and discuss the basic components of the United States health care system by learning various aspects of the industry, global alternatives, and how a multitude of internal and external factors impact and shape our delivery system. Topics will be supported by information in textbooks, articles, and Web sites. Students will use this material in preparation for written essays, presentations, and classroom discussions.

BU 5410 HUMAN RESOURCES IN HEALTH CARE ADMINISTRATION 3 CREDITS

This course addresses managing organizational behavior issues and techniques with a specific focus on human resource management issues unique to the health care industry.

BU 5420 HEALTH CARE LAW AND ETHICS 3 CREDITS

This course is specifically designed for graduate students enrolled in the Health Care Administration certificate program or an MBA with a health care administration focus. This course will focus on the principles and theories of law as it relates to health care delivery, health care management and administration, examination of the applications of laws in relation to health care liability prevention, and risks facing administrators, managers, and practitioners.

BU 5430 HEALTH CARE ADMINISTRATION AND FINANCIAL MANAGEMENT 3 CREDITS

This course presents an in-depth review of the financial management of health care organizations. This includes but is not limited to budget formulation process specific to health care delivery systems, funding sources and payment methodology, managing working capital and capital budgeting, the unique characteristics of non-profit organizations, and financial analysis of such organizations. Students will also do case study analysis in the previously mentioned topics.

BU 5460 GRADUATE MONEY AND BANKING 3 CREDITS

Designed to provide students with a working knowledge of the roles of commercial and central banking in the U.S. economy.

Topics of special interest include monetary policy, including interaction effects with fiscal policy; analysis of the role of monetary factors in our recent inflation-proof economy; and the significance to the domestic economy of international financial developments, particularly the role of the "Eurodollar." Of special interest is the recent inability of the banking system to compete effectively for funds with other financial intermediaries (especially money market mutual funds). Prerequisite: macroeconomics competency or permission of the instructor.

BU 5490 CAPSTONE: HEALTH CARE TOPICS 3 CREDITS

This course is a seminar-style presentation of current health care topics. This is an integrative course that incorporates all previous coursework into a cohesive body of knowledge. The topics include but are not limited to health care policy, quality initiatives, marketing in health care, current issues within Medicare and Medicaid, strategic decision making, and public health.

BU 5500 SMALL BUSINESS PROBLEMS AND STRATEGY: SBI PART I 3 CREDITS

Student teams examine, research, and present case findings and recommendations orally and in writing. Constant attention is given to those problems unique to small businesses. Students will go out into the field with the instructor as a team. Students will act as business consultants to a business in the area as part of PSU's Small Business Institute®.

BU 5501 SMALL BUSINESS ANALYSIS: SBI PART II 3 CREDITS

Required for a six-credit Small Business Institute® project that includes primary and secondary research, complex financial analysis, and a comprehensive plan including specific recommendations for improvements in business operations. Final report preparation of findings and recommendations to the small business client are requirements of this course.

BU 5510 OPERATIONS MANAGEMENT 3 CREDITS

Examination of the nature and structure of decision making in the midst of uncertainty. Formal techniques for measurement of risks and rewards are applied to case studies based chiefly on production systems. Concludes with a survey of current techniques for operations analysis, planning, and control.

BU 5520 NEGOTIATING, COLLABORATING, AND LEADING IN TODAY'S WORLD 3 CREDITS

This course examines the dynamics, constraints, and skills needed in negotiation, collaboration, and leadership. It focuses equally on using negotiation in business planning and in dispute resolution. Theories of negotiation are examined through current literature, and specific techniques are taught through simulated exercises. The course is drawn from the fields of business, law, psychology, administration, and communication. Also offered as AD 5520.

BU 5520 MULTINATIONAL MARKETING 3 CREDITS
 Post WWII, the trend toward freer trade and accelerating technological change has been altering the world's economic landscape via the process of globalization. The recent drift toward regionalism (e.g., unifying European and North American markets), the collapse and subsequent restructuring of many of the world's national economies such as in the Soviet and Eastern European economies, have served as massive economic experiments. Global recession and recovery have been studied to glean what has worked and what has failed in each of these examples, yielding critical information for future marketing strategies. This course is designed to introduce some of the key issues of these international events that can be incorporated into multinational marketing. This class will focus on issues involved in marketing products and services across national boundaries. Culture, economic arrangements, technical standards, currency movements, language, religion, ideology, politics, distance, and conflicting interpretations of national and global interests combine to complicate the administration of marketing's familiar "4 Ps" cross-nationally. This course uses a combination of lectures, global marketing cases, discussion, and mini projects to examine specific issues currently involved in multinational marketing strategies.

BU 5550 INVESTMENT MANAGEMENT 3 CREDITS
 Combines modern financial theory with the real world of finance. The objective is to provide concepts and tools for practical investment analysis and portfolio management. Topics include security markets, tax environment, risk, fixed income securities, common stock valuation, fundamental and technical analysis, concentrations, mutual funds, commodity and financial futures, and portfolio theory. Emphasis is on successful strategies. Written case analysis. Subscription to the Wall Street Journal required.

BU 5580 REAL ESTATE ENTREPRENEURSHIP 3 CREDITS
 Various methods of entry into this industry are examined. The roles and methods of brokers, developers, investors, financiers, appraisers, and managers are analyzed using financial models, economics, and law. The goal of the course is to gain a working knowledge that may be applied by the individual or by an organization.

BU 5590 BUDGETING AND FUND ACCOUNTING 3 CREDITS
 This course provides an understanding of budgeting and fund accounting concepts appropriate for governmental entities, not-for-profits, school systems, and colleges and universities. The course objective is to enable students to understand different ways of constructing accounting information to be used by the various entities for reporting, planning, and control. The use of accounting in decision making will be the focus of attention.

BU 5600 FEDERAL TAXES AND BUSINESS DECISIONS 3 CREDITS
 Tax laws and their effect on management planning and decision making, as well as on personal financial transactions are of interest to managers and accountants. Representative topics include tax aspects of selecting a business form; tax factors in acquiring, using, and disposing of land, buildings, or equipment; capital gains and losses; nontaxable transactions; individual income tax; family tax planning; and common tax traps. Prerequisite: financial accounting competency or permission of the instructor.

BU 5610 CONTEMPORARY ACCOUNTING AND THE BUSINESS ENVIRONMENT 3 CREDITS
 A study of contemporary accounting issues as they influence the business manager and the public. The interaction of accounting and the total business environment is discussed. Some areas that may be covered include segment reporting, social responsibility accounting, the SEC today, current value accounting, the impact of governmental regulations on various industries, management advisory services by accounting firms, and current cost issues in our society. Written research reports and oral reports are required from all students.

BU 5620 AUDITING PERSPECTIVES 3 CREDITS
 Theory and procedures underlying auditors' responsibilities in examining and reporting on financial statements of a business enterprise are discussed including professional ethics, auditing standards, reports, internal control, and the selection, scope, and application of auditing procedures.

BU 5630 POLICY TOPICS 3 CREDITS
 An in-depth study of a particular topic, contemporary issue, or concern will be the focus of this course and will be taught by a specialist within the field being studied. Since topics vary, the course may be repeated with different topics.

BU 5680 APPLICATIONS IN MARKETING RESEARCH 3 CREDITS
 A study of "decisional research" in business and its importance to management. As an integral part of learning the marketing research process, graduate students will be involved in actual, in-the-field marketing research process, from problem identification through final presentation of findings and recommendations.

BU 5690 BEHAVIORAL PERSPECTIVES IN MARKETING 3 CREDITS
 This course provides an understanding of consumer behavior and its relationship to marketing management. Applications of concepts from psychology, social psychology, cultural anthropology, sociology, and economics will be emphasized while interpreting current studies in consumer research and illustrating their marketing implications. Areas of concentration include image management, brand loyalty, product positioning,

attitude measurement, market segmentation, and the consumer decision-making process. An applied orientation of behavioral science to marketing management. Prerequisite: BU 5700.

BU 5700 MARKETING TECHNIQUES 3 CREDITS

The objective of this course is to help students develop a broad understanding of marketing techniques, strategies, and tactics employed by the marketing manager. This course will cover the use of the "marketing mix" elements as they pertain to the planning and implementation of the marketing plan.

BU 5720 SEMINAR IN EXECUTIVE
MANAGEMENT 3 CREDITS

From a decision-maker's point of view, students will participate in a seminar involving middle- and upper-level managerial responsibilities, as well as discussions concerning "state-of-the-art" methodologies appropriate to all levels of management. Case studies and group projects will be combined with informal lectures and discussions involving such areas as strategic planning, action planning techniques, policy making, managerial ethics, decision-making methods, control systems, and the integration of all resources for optimum performance. Prerequisite: basic management core courses (BU 5190, BU 5120, and BU 5210) or commensurate work experience.

BU 5730 CURRENT ISSUES IN MARKETING 3 CREDITS

This course is designed to explore the contemporary issues and challenges impacting the future of marketing management. Developments in technology, communications, demographics, consumerism, packaging, marketing information systems, and non-product marketing are some of the variables to be examined in terms of their current and future influence on the functions of the marketing manager. All other required marketing courses should be completed before entering this course.

BU 5750 MASTER'S RESEARCH PROJECT 6 CREDITS

MBA candidates may elect to do some investigation relating to an applied or theoretical problem in their area of interest. Normally it is expected that the enrollment for this course will cover two terms. The forms for the development and approval of this project are available at the College of Graduate Studies Office. One copy of the final report will be provided to each advisor and the original copy will be submitted to the department chair. There will be an oral presentation of the Master's Research Project results to the professor and readers prior to April 1 of the year of graduation. Requirements are expected to be completed by May 1 in the year of graduation.

BU 5810 SEMINAR IN CORPORATE PUBLIC
RELATIONS 3 CREDITS

This course combines the theoretical knowledge and applied skills needed for effective organizational public relations. Emphasis is on communication strategies for both profit and

non-profit organizations. Additional emphasis is placed on writing skills, understanding media channels, and developing a major media project for your organization by utilizing the public relations theory and practices studied in this course. Specific topics include an understanding of models of communication, corporate communication decision making, methods of persuasion, targeting publics, communication channels, effective writing, mass media, and business-media relations. Specific objectives include emphasizing the importance of effective writing skills in public relations, understanding the function of public relations in organizations, public relations practices, and providing students with an opportunity to develop public relations strategies and produce supporting promotional materials for their own organization.

BU 5820 WOMEN AS LEADERS 3 CREDITS

This course challenges women to consider the cultures, climates, and contexts that limit and support their capacities as leaders. Students will explore personal leadership styles, characteristics of effective leaders, and strategies for developing themselves as leaders.

BU 5850 NEW VENTURES AND
ENTREPRENEURSHIP 3 CREDITS

The course focuses on business start-ups, providing an intensive introduction to business planning from the defining of a "primary vision" through market size assessment and strategic operations planning, to the financing, staffing, and implementation of the new venture. Course includes readings on entrepreneurship, case studies of small and large examples of successful new ventures, and student fieldwork. Software available to help business planning will be introduced for hands-on use. Each student will prepare a formal business plan for new ventures.

BU 5910 INDEPENDENT STUDY 1-3 CREDITS

Enrichment of the background of students in business through the pursuit of a special topic pertinent to their interests and abilities is offered through independent study opportunities. This is an opportunity for an in-depth study of a problem in the business field. Consent of a faculty supervisor, department chair, program coordinator, and the associate vice president of the College of Graduate Studies is required.

COMPUTER EDUCATION

CE 5120 INTEGRATION OF TECHNOLOGY IN THE
K-12 CURRICULUM 3 CREDITS

This instructional technology foundation course is designed to provide K-12 educators, school librarians or media teachers, and administrators with an understanding of the ways that current and emerging technologies can be used to facilitate teaching, learning, and managing instruction. Discussions will focus on issues, trends,

and current uses of technology in K–12 education. Lab sessions will focus upon gaining experience on IBM compatible or Macintosh computers, learning software applications with Microsoft Office, evaluating educational software, designing technology-enhanced lessons, and utilizing telecommunications for K–12 curriculum integration. This is an introductory course and is specifically focused on educators wanting a hands-on approach to learning new technology skills.

CE 5140 ELECTRONIC PORTFOLIO DEVELOPMENT AND ASSESSMENT 3 CREDITS

This course is designed to investigate the principles of assessment educational technology that relate to the design, development, and assessment of electronic portfolios. Students will learn about the history, types, components, process, delivery, presentation, and assessment of electronic portfolios. Students will be expected to define the assessment approach, construct an electronic portfolio, and collaboratively design assessment tools that will be used to evaluate electronic portfolios. Additional areas of study in the course may include the influence of educational policy on the implementation of electronic portfolios, the role of the electronic portfolios in professional development and recertification, or innovative technologies used in electronic portfolio development.

CE 5150 MAKING MULTIMEDIA MEANINGFUL 3 CREDITS

This course is designed to provide K–12 educators with in-depth, hands-on experiences with multimedia technology and the power it brings to student learning. Educators will discover how multimedia tools enhance project-based learning and authentic assessment while producing a multimedia presentation based on an integrated curriculum theme; using computers, information technology, and telecommunications for powerful teaching and assessment of student work; and creating a project through teamwork with new technologies. As educators explore the significance of student-centered learning and teacher as coach, they will see how these new paradigms for teaching connect to their classrooms and schools.

CE 5160 TEACHING AND LEARNING IN A NETWORKED CLASSROOM 3 CREDITS

The evolution of the World Wide Web from what is being called Web 1.0 to Web 2.0 has brought about a new way of teaching and learning in this digital age. The use of Web 2.0 tools such as blogs, wikis, podcasting, videocasting, and a host of other free tools are allowing educators to connect to knowledge and each other like never before. Learners will gain hands-on experiences with Web 2.0 tools and explore the learning theory that supports their use in a networked classroom environment.

CE 5180 DESIGNING AND IMPLEMENTING NETWORK TECHNOLOGY 3 CREDITS

This course provides an understanding of LAN and WAN net-

working architectures. Students will learn the theory behind LANs and WANs and how to design both types of networks. LAN and WAN integration is stressed throughout the course. Some of the LAN architectures that are covered include ETHERNET, Token Ring, and FDDI. All major LAN and WAN protocols will be discussed, including protocol theory. The course provides a range of laboratory and hands-on assignments that teach students about theory as well as how to design and internet work LANs and WANs.

CE 5200 NETCOURSE INSTRUCTIONAL METHODS 3 CREDITS

This course prepares teachers to become online course instructors. This intensive course introduces the pedagogy and methodology of online teaching while guiding each participant through the modification of an existing semester or year-long online high school course. Participants read and discuss required educational articles and book chapters, develop new content for their courses, prepare instructional resources and collaborate with their classmates in group projects. Experienced course facilitators monitor each participant's progress and act as a mentor and a resource.

CE 5290 MANAGING TECHNOLOGY IN THE SCHOOL ENVIRONMENT 3 CREDITS

This course is an introduction to the technical features of information technology, especially hardware, software, and network systems used in educational settings. An examination of the responsibilities, knowledge, and skills required of the school technology coordinator, including utilizing operating systems and applications to increase productivity, efficiency, and computer health. Specific topics will include network planning and construction, client-server relationships, hardware configuration and placement, software deployment and imaging, print and file services, Internet connectivity, anti-virus measures, staffing and outsourcing, and planning.

CE 5310 21ST CENTURY TEACHING AND LEARNING 3 CREDITS

Educators need to integrate technology into their curriculum to transform student learning and meet the goals of the twenty-first century. To succeed in today's information-driven academic environment, students need to know how to find, use, manage, evaluate, and convey information efficiently and effectively. This includes not only knowledge of technology, but the ability to use critical-thinking skills to solve problems within a technological environment. Teachers wrap twenty-first century literacy skills into lesson content using a variety of strategies. This course helps educators plan and assess effective technology teaching methods, incorporate technology into any discipline, and develop key accountability and assessment strategies. In this six-week course, educators wear both a "student hat" and a "teacher hat" as they use digital technology and communication tools to solve an information problem. Educators experience how to use

technology as a tool to research, organize, evaluate, and communicate information as well as develop a fundamental understanding of the ethical and legal issues surrounding the access and use of information.

CE 5320 WEB-ENHANCED CLASSROOM 3 CREDITS

The Web-Enhanced Classroom is a six-week course that uses technology to enhance traditional face-to-face instruction. Online material is viewed as an extension of the classroom, and traditional lectures or classroom activities are linked with enhancements such as virtual tours, WebQuests, real-time information, maps, pictures, streaming video, audio clips, and open source components. Web-extended classrooms allow learning to happen in an interesting and exciting way. This course provides teachers with the opportunity to develop a complete unit of study for a Web-extended classroom and view other units created by peers. The unit of study is developed using the internet and includes information about open source portal components, while the educator learns how to efficiently and effectively search the Web for resources. The topic for the unit of study is of the educator's choice; some resources will be provided through virtual tours of Web sites.

CE 5330 ONLINE EXTENDED TEACHING 3 CREDITS

A hybrid course combines face-to-face instruction and Web-or computer-based learning. Common features of hybrid courses will be explored including the delivery of the syllabus, effective online lectures, readings, and assignments on Web pages; discussions and presentations through online message boards, e-mail, and chat; interactive tutorials and labs; and online assessments. By taking advantage of Web-enhanced instruction, less in-class time is spent on mundane tasks, and more time can be spent on collaborative, flexible, and meaningful activities that incorporate all student learning styles. In this six-week course, teachers determine what aspects of their course are best suited to presentation online, create new approaches to communicating with students, and create active independent learning experiences for students. Using computer-based technologies, instructors use the hybrid model to redesign some lecture or lab content into new online learning activities, such as case studies, tutorials, self-testing exercises, simulations, and online group collaborations.

CE 5340 WEB 2.0, COLLABORATIVE INSTRUCTION 3 CREDITS

Web technologies are shaping education in ways that have only been dreamed about before the advent of Web 2.0. The new Web enhances teaching practices and student learning because new tools allow the user to publish and interact in ways never before possible. In Web 2.0 learners become consumers of information and need to become critical readers and viewers, ready to hit the edit button, in the age of new literacies. Educators must teach and model methods in which ideas and products can be published on the Internet. Web 2.0 provides

the ability to work collaboratively across the virtual environment enhancing literacies, such as communication skills and global awareness, which have the effect of bringing down classroom walls. In this six-week course, participants explore the tools of Web 2.0 while participating in activities involving some of those which are more widely accepted in educational environments.

This course demonstrates how Web tools can generate new and exciting learning experiences for students of all abilities and learning styles. The course will offer participants ideas to help them think differently about technology and how it can be used to strengthen student's critical thinking, writing, reflection, interactive learning, and meta-cognition.

CE 5350 CAPSTONE COURSE: BECOMING AN ONLINE TEACHER 3 CREDITS

Moving from teaching in a face-to-face environment to teaching students online is not simply a matter of changing media—it also means changing instructional methodologies. In this six-week course, participants will have the opportunity to experience online teaching by partnering with an online master teacher in an established middle or high school online course. Through observation, reflection, and actively participating in the online classroom environment, the participant will first partner with the master teacher to deliver instruction, and then will fully assume online classroom responsibilities.

CE 5540 COMPUTERS, CURRICULUM, AND CHANGE 3 CREDITS

Computers have transformed how people learn, work, and play. Issues of philosophy, ethics, funding, and training have spawned new realms of controversy. This course examines these controversies in light of current educational practice. Topics include equitable use, technology planning, curriculum change, funding issues, learning theory, professional development, and pop culture.

CE 5560 SPECIAL TOPICS IN COMPUTER EDUCATION 1–3 CREDITS

This course provides an in-depth study of a particular topic, contemporary issue, or concern. The course is taught by a specialist within the field being studied or, as an alternative methodology, a faculty member will coordinate a series of guest speakers who will meaningfully address the topic. Since topics vary, the course may be repeated with permission of the instructor.

CE 5580 SPECIAL TOPICS IN WEB-BASED LEARNING 3 CREDITS

This course explores the integration of technology across various disciplines and topics. Instruction is offered in an asynchronous format. Action research projects, based on instructor approval, are assigned and reviewed through an independent guided learning contract. Projects, readings, and Web links are assigned

based on research topic and discipline. Since topics vary, the course may be repeated.

CE 5700 LEADERSHIP IN EDUCATIONAL TECHNOLOGY 3 CREDITS

This course is designed to enable the educational leader to develop the knowledge and skills necessary to provide solid instructional leadership through research, decision making, and modeling. Today's instructional leader must understand the importance and role of various technologies and how the financial expenses relate to human collateral such as professional time and energy spent creating budgets, scheduling, connecting with colleagues, and evaluating staff. Credible technology leadership in today's schools includes the ability to model technology use in order to perform the duties and responsibilities of the position with the highest level of ethical and legal standards.

CE 5800 PRACTICUM IN EDUCATIONAL COMPUTING 1-3 CREDITS

This course is designed to allow students to pursue, in depth, a personal interest in the field of educational computing. Students working with a faculty advisor will design and carry out an individual project that applies the knowledge and skills gained in the classroom to a real problem in their home district. Projects, which will vary with individual student interest, may consist of original research, curriculum development, programming original courseware, etc. The final report must be approved by the faculty advisor. Offered according to demand. Prerequisite: ED 5030.

CE 5910 INDEPENDENT STUDY 1-3 CREDITS

Enrichment of the background of students in education through the pursuit of a special topic pertinent to their interests and abilities is offered through independent study. This is an opportunity for an in-depth study of a problem in the field of education. Consent of a faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required.

CHEMISTRY

CH 5910 INDEPENDENT STUDY IN CHEMISTRY 1-3 CREDITS

Enrichment of the background of students in chemistry through the pursuit of a special topic pertinent to their interests and abilities is offered through independent study. This is an opportunity for an in-depth study of a problem in the field. Consent of a faculty supervisor, department chair, program coordinator, and the associate vice president for the College of Graduate Studies is required.

COUNSELING

CO 5010 PROFESSIONAL ORIENTATION, ETHICS AND ADVOCACY 3 CREDITS

This course examines the foundations of the counseling profession including ethics, advocacy, professional identity, and cultural competence. It emphasizes the importance of self-awareness and its relationship to effective counseling.

CO 5020 COUNSELING SKILLS 3 CREDITS

The course is designed to help students develop basic counseling skills. Through role play, practice interviews, and tape transcriptions, students will have the opportunity to learn and practice basic counseling skills. The relationships among theory, case conceptualizations, and counseling interventions will be examined. Ethical and culturally responsive practices will be emphasized. Prerequisites: CO 5010 or SY 6010.

CO 5030 FOUNDATIONS OF SCHOOL COUNSELING 3 CREDITS

Provides opportunities for students to understand school counselors' roles and responsibilities. Students will understand the development, organization, and administration of comprehensive guidance and counseling programs. Also focuses upon decision making within a legal and ethical context, cultural diversity, and contemporary issues facing school counselors. Prerequisite: CO 5010. There is a 20-hour pre-practicum field experience as part of this course.

CO 5040 SOCIAL BEHAVIOR AND DIVERSITY 3 CREDITS

Recognizing that social behavior occurs within an intercultural context, counselor education and school psychology students will develop the basic knowledge foundations necessary to understand and influence social behavior in a diverse society. Texts, readings, and learning modules have been chosen and/or designed to facilitate the student's ability to understand the nature of social behavior cross culturally.

CO 5050 ADVANCED HUMAN DEVELOPMENT 3 CREDITS

Focuses on a lifespan approach to human development and looks at the constancy and change in behavior throughout life, from conception to death. Students will study human development in the context of a multidisciplinary approach and the larger ecological context of developmental events in human behavior. This course will have four major concerns: to identify and describe the changes that occur across the life span; to explain these changes in the context of maturation, early learning, and societal factors impacting development; to review research and theoretical frameworks that have affected our way of thinking, and to study the interdependence and interrelatedness of all aspects of development. There is a 16-hour service learning/pre-practicum field experience as part of this course.

CO 5070 RESEARCH DESIGN FOR THE PROFESSIONS 3 CREDITS
This course is designed for students in the Educational Leadership and Counseling programs. Students will gain knowledge of statistical concepts, including reliability and validity, scales of measurement, measures of central tendency, indices of variability, shapes and types of distributions, and correlations. Each student will develop a complete proposal for a program in their profession, including a needs assessment, data collection design, review of related literature, and plans for implementation and evaluation.

CO 5080 THE COUNSELOR IN THE CLASSROOM 3 CREDITS
This course is focused on providing school counseling students in the elementary, middle, or secondary school setting with the prerequisite skills necessary for successful classroom work. Students will demonstrate competence in: knowledge of curriculum, lesson and interdisciplinary unit planning, organizing and delivering instruction, adjusting instruction for diverse learning styles, individual needs and cultures, evaluating outcomes of instruction, and use of a variety of classroom management strategies. Seminars will address issues related to teaching and emphasize student reflection and evaluation of their teaching. All students will be required to complete direct observation, participation, and teaching in a field placement. Discussions of ethical practice and professionalism will permeate the course.

CO 5100 PRACTICUM IN COUNSELING 3 CREDITS
This course is a 100-hour field-based experience that focuses on developing competency in basic counseling skills through work with individuals and groups. Students will complete field experiences in approved community sites appropriate for their concentration and participate in group seminar as well as in required on-site and university supervision. Successful completion of at least 100 hours of field work, including 40 hours of direct service to clients and successful completion of the practicum course is required to be eligible for internship. Prerequisites: Completion of all courses in program contract and submission of Intent to Enroll form by departmental deadline. Selected courses may be allowed as co-requisites with prior approval of course instructor.

CO 5130 PSYCHOPHARMACOLOGY AND THE BIOLOGICAL BASIS OF MENTAL HEALTH 3 CREDITS
This course explores the biological influences on mental illness. This includes an examination of the physiological basis of behavior, perception, emotion, and self-regulation; the current theory and research on the relationship between biological events in the central nervous system and behavior; and psychopharmacological interventions. Prerequisites: CO 5010 or SY 6010 or permission of the instructor.

CO 5150 EATING DISORDER CLINICAL 1-3 CREDITS
This clinical experience is a capstone course for those enrolled in the eating disorders certificate program. Students will be able

to choose a focus on awareness and prevention, and education experience or a clinical experience working in an eating disorders treatment facility for 120 hours. Prerequisite: 12 credits of eating disorders certificate program. Also presented as HL 5150.

CO 5160 EATING DISORDER AWARENESS AND PREVENTION 3 CREDITS
The focus of the course will be on increasing the student's knowledge of awareness, education, prevention, and treatment of eating disorders. Discussion will include diagnostic classifications; causes of eating disorders; history, prevalence, and treatment approaches to eating disorders; a discussion of a wellness/holistic approach to medical, nutritional and psychological therapies; special populations (e.g., women, children, males, and athletes); prevention programs; resources; the latest research and information on becoming a coordinator of Eating Disorder Awareness and Prevention Week. Also presented as HL 5160.

CO 5170 TREATMENT MODALITIES FOR EATING DISORDERS 3 CREDITS
This course will be an in-depth study of the dynamics of eating disorders followed by an overview of the dominant counseling approaches used in eating disorders treatment and management. The focus will include diagnosis, psychological assessments, psychotherapeutic, and other interventions, as well as clinical issues encountered in treatment. Prerequisite: CO/HL 5160. Also presented as HL 5170.

CO 5180 NUTRITION FUNDAMENTALS AND COUNSELING IN THE RECOVERY OF EATING DISORDERS 3 CREDITS
This course will focus on nutritional education issues relevant to those interested in health and wellness for the general population, as well as those working with eating disorders clients. Discussion will include basic concepts of nutrition science and nutritional needs; evaluation of weight management methods; investigation of food facts and fallacies; and different diet plans (e.g., vegetarian and sports nutrition). Information will be presented on how the nutritionist, counselor, or health educator applies nutritional information to their clients or students. The course will also include how to present information in nutritional counseling and education for the eating disorder client. Prerequisite: CO/HL 5160 or permission of instructor. Also presented as HL 5180.

CO 5190 MEDICAL AND PHYSIOLOGICAL ASPECTS OF EATING DISORDERS 3 CREDITS
The focus of the course will be to increase the student's knowledge of the effects eating disorders have on the body's medial systems and the physiologic function. Discussion will include diagnostic criteria and a multidisciplinary, integrative approach to assessment and management of each disorder. Emphasis will be placed on the evaluation of each body system, as well as

prevention and treatment of medical complications. Prerequisite: CO/HL 5160. Also presented as HL 5190.

CO 5230 CAREER COUNSELING AND DEVELOPMENT 3 CREDITS

An introduction to career development theories and their application to the counseling process. Students will understand and use career information and assessments as they pertain to counseling and career development. Students will apply theory and practice to current or potential work settings. Prerequisite: CO 5010. There is a 20-hour pre-practicum field experience as part of this course.

CO 5260 COUNSELING THEORIES 3 CREDITS

Major counseling theories and their relationship to the counseling process are explored. Individual, familial, and systemic models are presented along with dynamics and issues that reflect and cross theoretical perspectives. Students will be required to compare and contrast counseling theories and strategies, consider appropriate application of these strategies in diverse populations, and develop a personal model for providing help and facilitating behavioral change. Prerequisite or corequisite: CO 5010 or SY 6010.

CO 5300 FOUNDATIONS AND MULTICULTURAL ASPECTS OF PARENTING 3 CREDITS

Focuses on developing competency in a variety of areas surrounding parenting education, including understanding of parental issues and concerns within diverse family systems; understanding the dimensions of parenting children from birth to adolescence; and knowledge of multicultural perspectives in parenting.

CO 5310 STRATEGIES FOR PARENTING EDUCATION 3 CREDITS

Examines the practical aspects of parenting education. Students will study a variety of parenting education models, incorporating features of these models into their own particular situations (e.g., schools, agencies, or hospitals) and their respective populations (e.g., expectant parents or parents of preschoolers, school-age children, and adolescents or children with learning challenges). Topics to be discussed include delivery approaches, implementation issues, outcomes assessment, and trends and directions in parenting education. Offered according to demand.

CO 5320 DEVELOPING FAMILY SCHOOL AND COMMUNITY PARTNERSHIPS 3 CREDITS

Focuses on developing effective family-school-community partnerships through outreach and family empowerment. The course will emphasize a systems perspective and discuss strategies to involve families and the community in children's education, including shared responsibility for educational outcomes. Students will develop assessment tools and intervention plans designed to bring families, schools, and communities into

closer and more collaborative relationships. Specific attention will be paid to working with diverse parents.

CO 5360 INTERPERSONAL AND GROUP PROCESS 3 CREDITS

Development and awareness of behavioral skills that facilitate positive social emotional-educational growth within interpersonal and group contexts. Also focuses on the development of an understanding of interpersonal and group processes.

CO 5400 FOCUSED RESEARCH IN HUMAN RELATIONS 1-3 CREDITS

To formulate, develop, and present results of a thorough literature search related to the student's area of professional interest. The student, working under direction of the course instructor, will carry out the research from design to completion.

CO 5430 ASSESSMENT AND CONSULTATION 3 CREDITS

This course will help the student understand and interpret the principles of assessing students with and without disabilities. It includes valid evaluations and their use in eligibility determination, development of individualized education plans, and monitoring student progress. Standardized and non-standardized assessment techniques will be discussed in detail, including some state and national assessments. The range of assessments include intellectual functioning, interest inventories, achievement tests, aptitude tests, objective and projective personality assessments, and non-test techniques such as observations and self-reporting. There will be a special emphasis placed upon the role of the counselor as a consultant to staff and colleagues in schools and other agency settings. Discussion of federal and state rules and regulations as they apply to the rights and ethical responsibilities of the professional and the population served by the professional. Special consideration will be given to the treatment of minority populations and children with disabilities in the assessment and consultation process and in the inclusive educational environment. Prerequisite: CO 5070.

CO 5460 GROUP COUNSELING 3 CREDITS

This course provides a comprehensive understanding of theory, practice, and ethics in group counseling across the lifespan within clinical, school and other professional settings. This course provides students an opportunity to develop group counseling skills through classroom facilitation and supervision. In addition to the didactic portion of this class students will also participate as group members in an in-class 10-hour facilitated experiential group process.

CO 5480 ADVENTURE IN SCHOOLS AND HUMAN SERVICES 3 CREDITS

This course is designed to orient school professionals and human service providers to the history, theory, and ethical practice of adventure programming. Students will become a part of an experiential learning community to foster greater transfer of

learning back to their communities, organizations, and employment settings.

CO 5535 FOUNDATIONS OF CONFLICT RESOLUTION 3 CREDITS

This course is designed to provide students with the essential foundations to create workable conflict resolution programs in their respective fields of interest. Conflict happens, therefore there needs to be a process that will allow individuals to engage in interpersonal relationships, in any circumstances, productively and peaceably. The emphasis on the course will be how the process is used in the classroom, but it is not specific to this environment. Students will review many theories and concepts that can be used to create a peaceable environment within the classroom or workplace.

CO 5540 TOPICS IN ALTERNATIVE HEALTH AND HEALING 3 CREDITS

An intensive experience designed to allow participants to explore and experience healing modalities beyond clinical medicines. Topics include the evolution of medicine, the eight universal healing principles, the role of spirituality in health and healing, and the importance of the mind-body connection for wellness. Offered according to demand. Students are required to pay additional fees to participate in this course.

CO 5550 CREATING ORGANIZATIONAL HEALTH 3 CREDITS

The course is designed as an intensive introduction to the theories, methods, and tools for building wellness concepts into the strategic planning process of organizations. The class will define the future of wellness in the workplace, evolving beyond mechanistic approaches to individual wellness and developing holistic principles leading to organizational health. At the completion of the course students will have an understanding of ways to institute a new health paradigm into organizational design.

CO 5560 SPECIAL TOPICS IN COUNSELING 1-3 CREDITS

This course offers an in-depth study of a particular topic, contemporary issue, or concern. The course will be taught by a specialist within the field being studied. A faculty member can also coordinate a series of guest speakers who will meaningfully address the topic. Since topics vary, the course may be repeated with permission of the instructor.

CO 5570 MINDFULNESS MEDITATION: THEORY AND PRACTICE 3 CREDITS

Designed to review the theory and practice relative to mindfulness meditation. Focuses on the practice of the body scan, sitting meditation, healing meditation, eating meditation, and walking meditation. Extended periods of meditation practice each day are interspersed with group discussions, presentations, and small group work. Provides students with the theories surrounding the use of meditation as a healing tool while at the same time

providing an opportunity for students to learn and practice meditation techniques. Focus will be on learning the theories of mindfulness meditation; learning and practicing mindfulness techniques; incorporating mindfulness practice into our personal and professional lives; and the authentic use of mindfulness practice as a teaching tool. Students are required to pay additional fees to participate in this course.

CO 5590 TRANSPERSONAL PSYCHOLOGY 3 CREDITS

Addresses aspects of mind and behavior that transcend individual ego and personal identity. This course considers the dimensions of consciousness, the implications of transpersonal experiences, and the connection between psychology and spirituality. Class members gain an understanding of the fundamental assumptions underlying transpersonal theory and skills in applying theory to facilitate growth, health, and well-being.

CO 5600 FOUNDATIONS OF MENTAL HEALTH COUNSELING 3 CREDITS

This course introduces students to the field of mental health counseling. Topics include the history of mental health counseling, developing a professional identity as a clinical mental health counselor, understanding the larger mental health service delivery system, and current practice issues in mental health counseling. Culturally responsive, ethical, and grounded practices will be examined. Prerequisite: CO 5010. There is a 20-hour pre-practicum field experience as part of this course.

CO 5610 THE CIRCLE OF LIFE 3 CREDITS

Designed to facilitate the learning of individuals who intend to work in professions related to wellness. The topic of death and dying will be addressed in a comprehensive way with attention to both content knowledge and its application to the lives of individuals. Topics will include characteristics and causes of death; a developmental view of the life span; grief, bereavement, and loss; caring for the terminally ill; caregiver's personal concerns; and spiritual wellness.

CO 5620 SPIRITUAL HEALTH 3 CREDITS

Provides an opportunity to explore the role of the spiritual dimensions of wellness. A process of inquiry will help you better understand the spiritual dimension of self and the relationship of spirit to the health and healing process.

CO 5650 CRITICAL ISSUES IN SCHOOLS 3 CREDITS

This course focuses on the role of the school counselor in special education and crisis prevention and intervention. Topics include special education processes, roles, laws, ethics, disability categories, the Individual Educational Plan (IEP), cultural factors, school learning, divorce, bullying, child abuse, death, illness, parents with disabilities, moving, school violence and disasters, suicide, substance abuse, homosexuality, adolescent parenthood, parent-adolescent crises, rape and sexual assault, and eating disorders.

CO 5670 FAMILY AND SOCIAL SYSTEMS 3 CREDITS
A review of the phenomenological field of both the client and the counselor in terms of personal development and the theoretical frameworks associated with social systems. Designed to enable students to identify and determine appropriate intervention strategies for both the environmental and internal variables associated with clients and their support systems that are commonly seen in counseling. Prerequisites: CO 5010 or SY 6010 and CO 5260.

CO 5700 CRITICAL ISSUES: MENTAL HEALTH COUNSELING 3 CREDITS
This course examines models of crisis intervention, trauma, and substance abuse treatment. Students will learn current intervention models, how to evaluate risk factors, and how to determine and use resources. Prerequisite: CO 5010.

CO 5770 PSYCHOPATHOLOGY: DISORDERS OF CHILDHOOD, ADOLESCENCE AND ADULTHOOD 3 CREDITS
Course provides a clear, balanced presentation of the psychology of abnormal behavior including current theoretical models, research, clinical experiences, therapies, and controversies. Enables student to understand psychological and psychiatric disorders as discrete clinical conditions and to be able to apply differential diagnoses. Prerequisite: CO 5010 or SY 6010 or permission of instructor.

CO 5780 COUNSELING YOUTH 3 CREDITS
Multicultural counseling skill development to intervene successfully with children and adolescents. The application of brief counseling, play therapy, and small group work with children and adolescents. Designed to provide counselors with the skills needed to effectively consult with teachers, administrators, parents, and others. Prerequisite: CO 5010 or SY 6010, CO 5260, CO 5050, CO 5020 or permission of the instructor.

CO 5790 ASSESSMENT, DIAGNOSIS, AND TREATMENT PLANNING 3 CREDITS
This course is designed to develop competencies in clinical interviewing, diagnostic assessment, case conceptualization, and treatment planning. Diversity considerations and current models of evidence-based practice will be emphasized. Prerequisites: CO 5010, CO 5020, CO 5260, CO 5770, or permission of the instructor.

CO 5800 COUNSELING INTERNSHIP 1–6 CREDITS
An internship for students in the counselor education self-designed concentration. Students are expected to gain experience in the area of specialization chosen for the degree concentration. The internship is designed to be the culminating experience of the program. Prerequisite: completion of all major required courses and permission of the instructor.

CO 5850 SEMINAR AND INTERNSHIP IN SCHOOL COUNSELING 1–6 CREDITS
Personal, educational, and career guidance, and counseling experiences performed under supervision of a certified counselor and conducted in a public school setting. In addition to the required field experiences totaling 600 hours, students must attend seminar meetings on campus with fellow student interns and the PSU supervisor to exchange viewpoints and feedback. Designed to be the culminating experience in the counselor education program. Prerequisite: completion of all required courses, school counseling, and consent of instructor.

CO 5880 SEMINAR AND INTERNSHIP IN MENTAL HEALTH COUNSELING 1–12 CREDITS
A 900-hour clinical counseling experience under supervision and conducted in a mental health counseling setting. Students must attend an on-campus seminar that provides an opportunity for case presentation and professional development. Designed to be the culminating experience in the mental health counseling concentration. Students must provide evidence of liability insurance. Prerequisites: completion of all required courses in the mental health counseling concentration and consent of the PSU internship supervisor. Variable and repeatable.

CO 5910 INDEPENDENT STUDY IN COUNSELOR EDUCATION 1–3 CREDITS
Enrichment of the background of students in education through the pursuit of a special topic pertinent to their interests and abilities. An opportunity for an in-depth study of a problem in the field of education. Consent of a faculty supervisor, the department chair, and the associate vice president for the College of Graduate Studies is required.

CO 7010 FOUNDATIONS OF PLAY THERAPY: HISTORY, THEORY, AND SPECIAL APPLICATIONS 3 CREDITS
This course is designed to present a broad overview of the major theories of play therapy (i.e., history, therapeutic properties of play, developmental perspectives, beliefs, and techniques) and the application of these theories to a variety of special populations and settings. This is an introductory course and one of the required courses for becoming a Registered Play Therapist (RPT).

CO 7020 CHILD-CENTERED PLAY THERAPY 3 CREDITS
This course is designed to provide post-graduate counselors with the development of therapeutic skills and experience in implementing child-centered theory in the play therapy process. Class format includes lectures, discussions, personal reflections, skill development, case presentations, and videotaping with critique analysis. Group supervision is a strong component in this course.

CO 7120 PROFESSIONAL, LEGAL, AND ETHICAL ISSUES IN COUNSELING 3 CREDITS
The study of professional, legal, and ethical issues facing

clinical mental health counselors. Focus will be on developing professional identity, learning about ethical principles and standards underlying the profession, and being able to apply the law as it relates to the practice of counseling.

CO 7210 PRACTICUM IN PLAY THERAPY 3 CREDITS

This post-graduate course is designed as an intensive experience in advanced training in play therapy counseling skills in the work with children. Classes will be a combination of discussion, video presentation, case presentation, personal reflection, tape reviews, and group supervision. Students will have the opportunity to conduct parent interviews, create treatment plans, and provide observations of each child in this learning experience. Prerequisites: CO 7010 and CO 7020.

CO 7300 COUNSELING SUPERVISION 3 CREDITS

This course addresses theoretical, ethical, legal, relational, and practical issues in counseling supervision. In addition to reviewing the fundamentals of counseling supervision, the course will provide an experientially based opportunity to develop and practice relevant supervision strategies.

CO 7560 COUNSELOR EDUCATION: SPECIAL TOPICS 1-3 CREDITS

This course offers an in-depth study of a particular topic, contemporary issue, or concern. The course will be taught by a specialist within the field being studied. A faculty member can also coordinate a series of guest speakers who will meaningfully address the topic. Since topics vary, the course may be repeated with permission of the instructor.

ECONOMICS

EC 5460 GRADUATE MONEY AND BANKING 3 CREDITS

Designed to provide students with a working knowledge of the roles of commercial and central banking in the U.S. economy. Topics of special interest include monetary policy, including interaction effects with fiscal policy; analysis of the role of monetary factors in our recent inflation-proof economy; and the significance to the domestic economy of international financial developments, particularly the role of the "Eurodollar." Of special interest is the recent inability of the banking system to compete effectively for funds with other financial intermediaries (especially money market mutual funds). Prerequisite: macroeconomics competency or permission of the instructor.

EC 5610 ECONOMIC ISSUES IN INTERNATIONAL FINANCE 3 CREDITS

The study of international finance (international monetary relations) covers financial policies, international loans, balance of payments accounting, exchange rates, reserve and payments currencies, and international liquidity. Of particular interest is the

impact of the U.S. economy on international financial developments. Balance of payments adjustment under fixed and flexible exchange rates and under the gold standard will be considered in detail. Prerequisite: macroeconomics and microeconomics competencies or permission of the instructor.

EC 5615 GLOBAL ECONOMICS 3 CREDITS

The national economies today are all deeply embedded in an interactive global network with profound implications for both economic theory and economic policy. In this course, students will engage in theoretical as well as empirical studies of international economic relationships.

EC 5910 INDEPENDENT STUDY IN ECONOMICS 1-3 CREDITS

Enrichment of the background of students in business through the pursuit of a special topic pertinent to their interests and abilities. A chance for an in-depth study of a problem in the field of business. Consent of a faculty supervisor, department chair, graduate program coordinator, and the associate vice president for the College of Graduate Studies is required.

EDUCATION

ED 5000 SOCIAL BEHAVIOR IN A DIVERSE SOCIETY 3 CREDITS

Seeks to examine the manner in which the behavior, feelings, or thoughts of one individual are influenced by the behavior or characteristics of others. Topics to be considered include social perception, attitudes, gender, social cognition, conflict, social influence, intercultural awareness, prejudice, discrimination, aggression, and group behavior.

ED 5005 SOCIAL PSYCHOLOGY AND MYTHOLOGY ACROSS CULTURES 3 CREDITS

This course will provide an in-depth study of the social and cultural basis of behavior and examine the role of mythology as a vehicle for intrapersonal and interpersonal understanding. The major theoretical, empirical, and applied lines of work in the following topics in contemporary social psychology will be explored, including social cognition, interpersonal perception, attitudes, stereotyping and prejudice, the self, and interpersonal and group relations. Mythology will be employed as a mechanism for cross-cultural comparison and as a unifying construct to enhance multicultural understanding.

ED 5010 PHILOSOPHY, ETHICS, AND EDUCATION 3 CREDITS

A study of the historical, philosophical, and social-philosophic foundations of education. Emphasis is placed upon the ideas of the classical, medieval, Enlightenment, and post-Enlightenment periods that have influenced types of American educational systems relative to their mission and purpose. Analysis of how these systems have defined ethics and the characteristics of the

virtuous person.

ED 5030 RESEARCH DESIGN 3 CREDITS

Knowledge and understanding of the commonly accepted research designs. Study of research instruments and statistics used in educational research. Wide reading in various types of research design. Critical analysis of research design.

ED 5040 EDUCATION AND SOCIETY 3 CREDITS

Explores the elements of sociology, history, and social psychology, the interaction of which produces the American public school. Reviews the social structure of the United States and its influence on curriculum, power hierarchies, the disadvantaged child, ascribed status groups, social roles, social perception, and beliefs and attitudes.

ED 5040 EDUCATION AND SOCIETY 3 CREDITS

This course is designed especially for mainstream teachers who want to know more about how to better meet the needs of English language learners (ELLs) in their classroom. It provides an in-depth examination of widely-used, evidence-based techniques for teaching non-native speakers of English within the mainstream classroom. In addition to an overview of current theories for teaching English language learners, the course foregrounds strategies and practical hands-on ways for engaging, teaching, and assessing ELLs within the K-12 mainstream classroom. Participants gain a theoretical grounding as well as practice with scaffolding content for language learners, and developing individualized learner strategies. This course includes instruction in using CALLA, the Cognitive Academic Language Learning Approach, and SIOP (Sheltered Instruction Observation Protocol), with ELLs.

ED 5060 THEORIES OF LEARNING AND COGNITIVE DEVELOPMENT 3 CREDITS

An overview of current theories concerning the brain, development, and learning. Analysis of developmental concepts from birth through adolescence and adulthood. Discussion of language acquisition, thinking and learning styles, multiple intelligence, and creativity. Topics include teaching, learning, and assessment issues related to cultural diversity, technology, and learning differences.

ED 5080 INSTRUCTIONAL STRATEGIES AND CURRICULUM DESIGN 3 CREDITS

Focuses on providing students interested in elementary or secondary teaching with prerequisite skills necessary for successful student teaching. Students will demonstrate competence in: knowledge of curriculum; lesson and interdisciplinary unit planning; organizing and delivering instruction; adjusting instruction for diverse learning styles; individual needs and cultures; evaluating outcomes of instruction; and use of a variety of classroom management strategies. Seminars will address issues related to teaching and emphasize student reflection and

evaluation of their teaching. All students will be required to complete directed observation, participation and teaching in an assigned school. Discussions of ethical practices and professionalism will permeate the course. Prerequisite: ED 5270.

ED 5090 CRUCIAL ISSUES IN EDUCATION 1-3 CREDITS

Explores significant problems affecting contemporary education. Focuses on identification of the problems, research, and recommendations leading to solutions. Major emphasis on research elements. Unscheduled.

ED 5140 ASSESSMENT: PRINCIPLES AND PRACTICES 3 CREDITS

The emphasis throughout this course is on the practical application of appraisal techniques in education. Critical concepts related to assessment and the integration of assessment into teaching and learning include: the role of assessment in teaching; how validity is determined; factors influencing reliability; avoiding stereotypes, understanding and using numerical data; using standardized assessment to improve instruction; and ideas and strategies for mining and reporting assessment data.

ED 5150 INDIVIDUAL INTELLIGENCE TESTING 3 CREDITS

Concepts of intelligence. Introduction to psychological tests. Students give, score, and write interpretations for the Stanford-Binet, WISC, and WAIS. Intended for special education class teachers, administrators, and guidance personnel. May be taken as PS 5150. Unscheduled.

ED 5180 COLLABORATIVE ACTION RESEARCH 1-3 CREDITS

A course for teaching and administrative practitioners in which a local educational problem is examined from the standpoint of how it can best be studied and solved. A blueprint for solving the problem is prepared including statement and purpose, scope, assumptions or hypotheses, limitations, and essential definitions. Course culmination will include collection of data, analysis of that data, conclusions, and recommendation preparation that follow appropriate form and style.

ED 5190 INTRODUCTION TO GRANT PROPOSAL WRITING 3 CREDITS

Students will be introduced to the art of grant proposal writing for public and private funding sources. Students will develop a grant proposal as part of the course. Sources of funding will be provided. Offered according to demand.

ED 5210 GRADUATE PRACTICUM 1-6 CREDITS

This is a supervised practicum experience in one of several cooperating institutions or agencies in New Hampshire. The purpose is to gain meaningful work experience through applying knowledge learned in previous coursework to the on-the-job situation. Commitment includes a negotiated number of hours per week and participation in seminars. Supervision is by the

institution or agency concerned, and by PSU faculty. Students anticipating more than three hours of credit should confer early in their program with the department chair to free up sufficient blocks of time. Permission of advisor, department chair, and associate vice president for the College of Graduate Studies is required.

ED 5270 FOUNDATIONS OF TEACHING 3 CREDITS

An introduction to the teaching profession and the realities of teaching in today's schools. A series of seminars includes such topics as the history and structure of education, societal issues, the role of the teacher, instructional planning, legal rights and responsibilities of students and teachers, learning styles, and effective teaching. A school observation and participation experience of a minimum of 30 hours is required.

ED 5310 YOUNG ADOLESCENT LEARNERS 2-3 CREDITS
INSTITUTE

Participants will develop a clear vision of what comprises effective teaching at the middle level and learn strategies that address many challenges classroom educators face every day. This information is the foundation for making solid decisions throughout an educational career. This course is designed for participating middle level educators who want to develop tools to more effectively teach young adolescents. Participants will have certain latitude to investigate topics and strategies that will have the greatest individual meaning. Practical, meaningful, and appropriate learning practices are the foundations of these courses.

ED 5320 ACTIVE LEARNING CLASSROOMS 2-3 CREDITS

Participants will explore all aspects of developing an instructional plan from accessing and building prior knowledge to making connections across the curriculum. The focus will be design strategies that engage each student in the processes of learning. This course is designed for participating middle level educators who want to develop tools to more effectively teach young adolescents. Participants will have certain latitude to investigate topics and strategies that will have the greatest individual meaning. Practical, meaningful, and appropriate learning practices are the foundations of these courses.

ED 5330 PERSONALIZING LEARNING 2-3 CREDITS

A meaningful relationship among faculty and students enhances academic achievement. Creating personalization of student learning, developing student ownership and responsibility in a school through an advisory, supports students' affective and academic needs. Personal connections are necessary for successful middle level learning. This course is designed for participating middle level educators who want to develop tools to more effectively teach young adolescents. Participants will have certain latitude to investigate topics and strategies that will have the greatest individual meaning. Practical, meaningful, and appropriate learning practices are the foundations of these courses.

ED 5340 DIFFERENTIATING MIDDLE LEVEL 2-3 CREDITS
INSTRUCTION

This course will guide participants from planning to practice of differentiated instruction at the middle level. Participants should bring a teacher's edition and any ancillary materials so that they can plan lessons or a unit of work. Teams will have the opportunity to develop an integrated unit of work. This course is designed for participating middle level educators who want to develop tools to more effectively teach young adolescents. Participants will have certain latitude to investigate topics and strategies that will have the greatest individual meaning. Practical, meaningful, and appropriate learning practices are the foundations of these courses.

ED 5350 FORMATIVE ASSESSMENT 2-3 CREDITS

This course is designed to examine current classroom assessment strategies used to check students' prior knowledge before beginning instruction and to check what they are really learning. Bring unit and/or lesson assessment you are currently using or have used. Students will incorporate the use of formative assessment strategies to guide instruction and improve student learning. This course is designed for participating middle level educators who want to develop tools to more effectively teach young adolescents. Participants will have certain latitude to investigate topics and strategies that will have the greatest individual meaning. Practical, meaningful, and appropriate learning practices are the foundations of these courses.

ED 5360 DEVELOPING QUALITY EDUCATION 2-3 CREDITS
TEAMS

Designed to help educators create teams that are terrific, this course addresses the question of what teams should be doing to improve student learning. Team protocols, qualities of excellence, and key teaming practices will be modeled and identified. Participants will have a deeper understanding of what is needed for teacher teams to assist each young adolescent student to learn to high levels. This course is designed for participating middle level educators who want to develop tools to more effectively teach young adolescents. Participants will have certain latitude to investigate topics and strategies that will have the greatest individual meaning. Practical, meaningful, and appropriate learning practices are the foundations of these courses.

ED 5370 NELMS LEADERSHIP INSTITUTE 2-3 CREDITS

Participants will expand their leadership capacity and learn about the tools necessary for leaders to be successful at the school or district level. This interactive Institute is based on "Breaking Ranks in the Middle" (BRIM) concepts and includes modeling, reflecting and transferring knowledge. Participants will learn what works in schools where young adolescents learn to high levels. This course is designed for participating middle level educators who want to develop tools to more effectively teach young adolescents. Participants will have certain latitude to investigate topics

and strategies that will have the greatest individual meaning. Practical, meaningful, and appropriate learning practices are the foundations of these courses.

ED 5430 INTERNSHIP IN COLLEGE TEACHING 1–3 CREDITS
Supervised internship in the development of a first teaching field under the mentorship of an assigned faculty member. Development of a learning framework for teaching at the post-secondary level with attention to models of instruction, learning styles, and needs of the college student and nontraditional learner. Presentation of course syllabus, course topics, and concept lectures, course projects, tests, and related materials. May be repeated with permission of instructor. Fall and offered according to demand.

ED 5500 SPECIAL TOPICS IN EDUCATION 1–3 CREDITS
An in-depth study of a particular topic, contemporary issue, or concern. The course will be taught by a specialist within the field being studied or as an alternative methodology. A faculty member will coordinate a series of guest speakers who will meaningfully address the topic. Since topics vary, the course may be repeated with permission of the instructor.

ED 5570 CLASSROOM INTERVENTION AND SPECIAL EDUCATION STRATEGIES 3 CREDITS
Analysis of models and dynamics involved in planning, teaching, and evaluating environments for special needs students. An overview of special education, characteristics of individuals with disabilities, individualized educational plans, functional behavior assessment, practical teaching strategies, and the New Hampshire Special Education Process and Policies. An observation component of 15 hours will be required of all students not presently in a school or teaching situation.

ED 5580 INDIVIDUAL RESEARCH IN EDUCATION 3 CREDITS
A research project that requires students to demonstrate the ability to synthesize salient elements from the core, professional, and specialty areas. In essence, the student's research should be the natural result of the focus and direction of planned study. The project should emanate from the area of specialization and incorporate relevant concepts learned through coursework and experience. Using sound research practices, a student should illustrate ability to interpret, reflect, summarize, and conclude. The written product of this effort will be defended in a seminar before faculty and the student's peers. Students should contact the advisor to plan for this project. Topic approval is needed from the advisor and the associate vice president for the College of Graduate Studies.

ED 5600 LEADERSHIP, MENTORSHIP, AND THE BRAIN 3 CREDITS
An in-depth exploration into the relationship between the brain, behavior, and leadership/mentorship. The content of the course

focuses on working with adults to understand and change behavior, especially as it pertains to educators. The role of emotions in behavior is studied.

ED 5610 RESEARCH-BASED TEACHING AND LEARNING 3 CREDITS
Participants will study research-based practices that support life-long learning. A common language will be developed to identify and articulate good instruction. The role of observation will be examined as part of a continuous cycle of improvement. Educator and learner perspectives will be emphasized.

ED 5620 DATA AND COLLABORATIVE CONVERSATIONS 3 CREDITS
Participants will examine the challenges and choices inherent in the cycle of continuous improvement. Using the data from formative assessments, students will learn and apply techniques for engaging in individual and group "difficult conversations." Using a variety of data-analysis strategies, implementation plans will be developed.

ED 5630 MENTOR ROLES AND RESPONSIBILITIES 3 CREDITS
Participants will examine the many and varied roles and responsibilities of mentors, including the initial selection of mentors. In this individualized course, students will examine and apply the skills needed for different educator roles, including student teachers, new teachers, special education teachers, alternative 4 candidates, administrators, and paraprofessionals. Advocacy and evaluation of mentor programs will be studied.

ED 5640 PRACTICUM IN MENTORING 3 CREDITS
This is a supervised practicum experience in collaboration with institutions or agencies in New Hampshire. The purpose is to gain meaningful work experience through applying knowledge learning in previous coursework to the on-the-job situation.

ED 5910 INDEPENDENT STUDY 1–3 CREDITS
Enrichment of the background of students in education through the pursuit of a special topic pertinent to their interests and abilities. A chance for an in-depth study of a problem in the field of education. Consent of a faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required.

ED 5950 GRADUATE THESIS 1–9 CREDITS
The thesis carries six graduate credits that will, after careful consideration of thesis content, substitute for coursework of six credits in the program option. Students select a topic for study in consultation with their program advisor and related faculty. A timeline, thesis publication, and defense are outlined. Three copies of the thesis must be submitted with a bound copy that remains on file at the College of Graduate Studies Office.

ED 5960 INTERNSHIP IN TEACHER EDUCATION 1–9 CREDITS
Student teaching for students in the MEd in Elementary or Secondary Education programs. Students must have all course-work for the degree, including any required undergraduate prerequisites, completed before taking this course.

ED 5980 PUPPETRY IN EDUCATION WORKSHOP 1 CREDIT
The goal of this one-credit, practicum-based experience is to introduce the student to the educational value of puppetry in the classroom. Basic puppetry skills (construction and manipulation of simple hand, rod, and educational puppets) will be developed and discussed with an emphasis on integration into school curriculum. Offered according to demand.

ED 5990 PHILOSOPHY AND ETHICS 3 CREDITS
A survey of various positions concerning the question of ethics. Major emphasis will be placed on how ethical judgments are to be justified from a philosophical foundation. Emphasis will also be placed on the ethics associated with world religions such as Judaism, Christianity, Islam, Hinduism, Buddhism, and Confucianism. Ethical systems related to professional practice will also be surveyed. Offered according to demand.

ED 6100 CURRICULUM INTEGRATION AND PERFORMANCE-BASED ASSESSMENT 3 CREDITS
This course will focus on assessing curricula and assessment practices that correlate with state and national standards. Students will be introduced to a range of curriculum models. Various strategies and the administration of performance-based assessment will be studied. This course is designed for students in the Elementary and Secondary Teacher Certification programs.

ED 6120 CONNECTING READING, WRITING, AND MATHEMATICS IN THE ELEMENTARY CLASSROOM 3 CREDITS
This course will focus on the integration of reading and writing with mathematics. Methods and activities for integration will be explored. Students will be involved in a comprehensive study of ways to use reading and writing to strengthen the mathematics curriculum. Students will develop their own integrated unity plan to use in their classroom. Also presented as RL 5100.

ED 6900 GRADUATE CAPSTONE PROJECT 1–12 CREDITS
A culminating, supervised project or practicum experience in a work environment or cooperating institution or agency. The purpose is to apply knowledge learned in previous coursework to the work environment or through an approved project. The candidate works with a field supervisor on site and presents their final product to PSU faculty. Students who anticipate working on their project for more than one term should register for the appropriate number of credits in each term so that they remain registered throughout the course of the project. Students should anticipate planning approximately 40 hours of work for each

credit to be earned and the number of credits to be earned in total must be approved by their advisor and noted on their program contract. Candidates must submit a Graduate Capstone Project form with their registration, and the Capstone Project must be approved by the advisor and the associate vice president for the College of Graduate Studies.

EXPERIENTIAL EDUCATION

EE 5110 ADVENTURE BASICS 3 CREDITS
This workshop is designed to model the delivery of a condensed but carefully sequenced challenge course curriculum. Participants will learn both the basic technical skills of operating a challenge course as well as the facilitation skills essential to sequencing a program to maximize outcomes with participants. Adventure Basics provides an important first step for both understanding the flow and interplay of a group experience and for learning the skills to run an effective challenge course education program.

EE 5120 ADVANCED TECHNICAL CHALLENGE COURSE: BEYOND BASICS 2 CREDITS
An advanced workshop designed to help the adventure practitioner acquire the requisite skills to effectively facilitate a low and high challenge course program. Emphasis will be on developing a deeper understanding of challenge course systems and cultivating a critical eye for safety. Some of the specific skills covered in this workshop are as follows: knot-tying, proper use of equipment, belay techniques, leading edge climbing, and basic rescue procedures.

EE 5130 BUILDING YOUR REPERTOIRE 2 CREDITS
Participants will complete three of the following one-day workshops: Games for Any Space; No Props No Problem; Metaphors for Change; 10 Props, 100 Activities; or Teachable Moments, and complete a resource book of activities and facilitation tools that fit their professional practice. These workshops present a variety of experiential based activities focused on problem solving, communication skills development, asset building, and reflection. Participants should also gain an understanding of the foundations of experiential education and the philosophy of learning and community building through play.

EE 5140 EXPERIENTIAL EDUCATION AND DIFFERENTIATED INSTRUCTION 2 CREDITS
This course gives teachers new perspectives, tools, and techniques for recognizing the varying learning styles and needs of their students, enabling them to design lessons that better engage all of the learners in their classroom. In an interactive collaborative learning environment participants will explore their own learning styles, how learning style impacts outcomes, and work with peers to develop differentiated lesson plans for their classrooms. Teachers will gain ideas, tools, and specific activities for empow-

ering students to take more control over their learning.

EE 5150 EXPERIENTIAL GROUP FACILITATION: BEYOND BASICS 2 CREDITS

This workshop offers educators and group facilitators from diverse settings an opportunity to gain practical skills in group facilitation and to develop and refine their facilitation style. In a co-creative environment facilitators will explore the art of facilitation and practice their facilitation skills. Participants will leave with a variety of practical activities, strategies, and tools that will enhance their practice as a facilitator. Through hands-on program design and implementation practice, reflection, and input from peers, facilitators will gain new insights and resources, and tap into their strengths as an educator. Participants will leave with practical tools to enhance their practice as facilitators.

EE 5160 THE EXPERIENTIAL LEARNING CYCLE 2 CREDITS

In this series of interactive workshops—Adventures in Learning and Teaching, Activities for Academic Success, and Teachable Moments—educators will explore tools and ideas for engaging learners in three critical aspects of experiential learning: creating a positive environment for learning, engaging learners in meaningful experiences that relate to core academic content, and reflective learning. Participants will earn two credits through completion of the three workshops and an experiential curriculum design project that relates to their professional practice.

EE 5170 INTRODUCTION TO LOW CHALLENGE COURSE ELEMENTS 2 CREDITS

The course is designed as an introductory experience intended to model a condensed but carefully sequenced challenge course curriculum. Participants will learn both the technical skills of operating a low challenge course as well as facilitator skills essential to the operation of an experiential education program. Provides an important first step for both understanding the flow and interplay of a group experience and for learning the skills to run an effective adventure learning and challenge course program.

EE 5180 MANAGING AN ADVENTURE PROGRAM 2 CREDITS

Designed to help adventure professionals manage an adventure education program and its many facets and details. The course is intended for anyone who has primary responsibility for the management of a challenge course site or adventure education programs at their school, camp, or business setting. In addition to helping the challenge course professional learn essential management skills, the workshop also focuses upon improving one's analysis and judgment capabilities.

EE 5190 INDEPENDENT STUDY 1–3 CREDITS

Enrichment of the background of students in education through the pursuit of a special topic in the area of experiential education theory, research, inquiry, or implementation pertinent to their interests and abilities. A chance for an in-depth study of a

problem in the field of Experiential Education. Consent of a faculty supervisor and the associate vice president for the College of Graduate Studies is required.

ENGLISH

EN 5000 TEACHER ACTION RESEARCH 3 CREDITS

This course is designed to provide a background in qualitative classroom-based research. Students design a research project in which they find and frame a research question that they will investigate through interview, observations, participant observations, or analysis of artifacts. Students will write up and present the results of this limited study.

EN 5050 THEORY AND PRACTICE IN THE TEACHING OF WRITING MIDDLE/SECONDARY 6 CREDITS

This is a summer institute for teachers of grades K–16 sponsored by the Plymouth Writing Project. Teachers work on their own writing, conduct research into an aspect of teaching writing, participate in reflective practice, and in critical teaching demonstrations. This is an intensive, full-time, summer experience. Available through application only.

EN 5100 USING FILM TO TEACH LITERATURE IN SECONDARY SCHOOLS 3 CREDITS

The study of the basic elements and techniques of filmmaking and the exploration of methods through which the study of film might be used in the literature class, primarily with the visual elements inherent in literature. The course will culminate with each student teaching a session on a scene from a film.

EN 5230 TEACHING LITERATURE: THE MEMOIR 3 CREDITS

This course will focus on the memoir as a literary form. Students will read and discuss memoirs and devise a memoir unit for their classes.

EN 5240 STUDY OF LANGUAGE AND GRAMMAR 3 CREDITS

Selected reading and research in the nature and development of language, history of the English language, dialects, levels of uses, and purposes of language. The structure of American English is also discussed, as well as recent developments in language study.

EN 5300 POETRY WORKSHOP FOR TEACHERS 3 CREDITS

This course is designed to help teachers develop their own poetry and to learn ways of working with poetry with their students. Students will compile a portfolio of original poetry and design a poetry-writing program for use in their classes. They will also learn techniques for integrating the study of poetry throughout the curriculum.

EN 5320 TEACHING LITERATURE: THE SHORT STORY 3 CREDITS

This course focuses on critical reading of short fiction and how to approach discussion of story elements.

EN 5360 FICTION WRITING WORKSHOP FOR TEACHERS 3 CREDITS

This course is designed to help teachers develop their own fiction and to learn ways of working with their students. They will compile a portfolio of their own original fiction and design a fiction-writing program for use in their classes. They will also learn techniques for integrating the study of fiction throughout the curriculum.

EN 5370 WRITING ACROSS THE CURRICULUM 3 CREDITS

In this course for teachers of all disciplines at all levels, we will examine a variety of techniques for integrating writing into all classes. Teachers will adapt the practices demonstrated to their subject area and grade level and gather student writing samples. We will analyze student writing samples, and discuss implications for teaching K-12. At the same time we will respond to students' writing, write about our teaching, and explore the implications for our practice.

EN 5380 OPEN INSTITUTE FOR TEACHERS OF WRITING 3 CREDITS

The aim of the open institute is to allow participants the time, space, and optimal conditions to work on their own writing, explore theory and research in the teaching of writing, and to transform learning into practice for teaching. The institute is divided into two interwoven sections: Theory and Research Into Practice (TRIP) and Writing and Reflective Practice (WRP).

EN 5400 JOURNALISM WORKSHOP 3 CREDITS

Students will learn how to edit and put together a small newspaper or magazine. They will learn how to edit and tailor stories to different news outlets. They will work to understand and to help their students understand how the news media shapes how they and their students think about the world.

EN 5450 LEADERSHIP IN WRITING 3-6 CREDITS

This is an advanced course for teachers who are ready to assume leadership positions relative to staff development in the teaching of writing. The course will provide an in-depth background in the teaching of writing, including process based teaching, planning for instruction, assessment, writing across the curriculum, staff development, and how to help teachers become reflective practitioners in all areas of the teaching of writing. Available by application only.

EN 5500 TOPICS IN TEACHING LITERATURE 1-3 CREDITS

This course focuses on various topics in literature at the graduate level not covered in other English courses and may be repeated

with different topics.

EN 5560 TOPICS IN TEACHING WRITING 1-3 CREDITS

This course focuses on various topics related to the teaching of writing not covered in other English courses and may be repeated with different topics.

EN 5600 TECHNICAL WRITING ACROSS DISCIPLINES 3 CREDITS

This course is designed to encourage critical thought and to teach students to analyze and write for an audience whose technical understanding is less than the writer's own.

EN 5620 PROMISING PRACTICES IN THE TEACHING OF WRITING 1-3 CREDITS

An introduction to various promising practices in the teaching of writing. Participants will attend workshops and follow-up sessions after applying promising practices in their classrooms. They will then write a culminating paper in which they reflect on their experience and what they have learned from implementing the practices with their students.

EN 5630 WRITING WORKSHOP FOR TEACHERS 3 CREDITS

Structure and implementation of classroom writing workshops, including conferences and portfolio assessment. Students will study writing process history and theory, and work with their own writing. They will create a personal literature anthology exploring their relationship to various literary genres. Analysis of student writing samples, evaluation criteria for writing, and their implication for teaching will be discussed.

EN 5640 THEORY AND PRACTICE: TEACHING WRITING AT THE SECONDARY LEVEL 3 CREDITS

An introduction to methods and philosophies of the teaching of writing, with a focus on grades 5-12. Students will explore philosophical elements of a process/environmental approach to teaching writing for responsive teaching in a democratic and pluralistic society. They will use constructivist learning theory to set up and practice writing conferences and in-depth assessment of student writing, and have practiced using that assessment to guide instruction. Observation and participation in secondary or middle schools required.

EN 5750 ADVANCED WRITING WORKSHOP FOR TEACHERS: EDITING AND PUBLISHING 3 CREDITS

This course is designed for teachers with some experience teaching writing using a process methodology, or those who have had training in that area. The course provides an opportunity for them to work at their own writing and to learn about the compilation of a literary anthology.

EN 5800 INTERNSHIP IN THE SECONDARY SCHOOL 3 CREDITS

This course involves the planning and implementation of a specific unit of study involving the teaching of writing in the secondary school. Students will design and implement the unit of study, which will end in a culminating event such as a public reading, a literary magazine, an oral history, or travel writing project. Students should begin this course with a specific idea to develop into a unit with their classes.

EN 5830 TEACHING LITERATURE FOR CULTURAL UNDERSTANDING 1–3 CREDITS

This course provides an introduction to the use of multicultural literature appropriate for K–12 classes to increase cultural understanding. Students will apply a spectrum of intercultural sensitivity as a guide for working with their students. The course involves the planning and implementation of a unit of study involving the teaching of multicultural literature in the K–12 school and integrating writing and the arts.

EN 5870 TEACHING LITERATURE IN SECONDARY SCHOOL 1–3 CREDITS

Instructional methods and materials used in teaching literature at the secondary (5–12) level. Observation and participation in local schools is required.

EN 5910 INDEPENDENT STUDY 1–3 CREDITS

Enrichment of the background of students in education through the pursuit of a special topic pertinent to their interests and abilities. A chance for an in-depth study of a problem in the field of English. Consent of a faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required.

EDUCATIONAL LEADERSHIP

EP 7020 COLLABORATIVE LEADERSHIP 3 CREDITS

Students will explore major concepts related to developing partnerships and communities of learners. Course topics include the change process, forms of school and community governance, school culture, the concept of collaboration, and agencies and organizations involved in community programs and initiatives. Special attention is focused on planning and implementing system-wide and building-level networks. Students will develop and evaluate a framework for collaboration and demonstrate systems thinking. Typically the first course completed in the CAGS program.

EP 7030 TRANSFORMING THE EDUCATIONAL AGENDA 3 CREDITS

This course focuses on the development of a self-renewing capability inherent in professionals and organizations. Students

will discuss the notion of transformation in the context of knowledge base, self-reflection, and the socio-professional processes in educational change. Students will explore the integration of ecological perspectives within a changing society and the demand for greater tolerance of human behavior in the context of learning. Students will demonstrate an understanding of the need to keep student learning and development as the central core of educational change. Prerequisites: EP 7020 and EP 7040.

EP 7040 PLANNING IN EDUCATION AND HUMAN SERVICES 3 CREDITS

The purpose of this course is to develop effective collaborative planners. This course presents the major stages in the process of developing a strategic plan, including forming a mission statement, crafting and implementing the plan, and evaluating plan performance. It provides a theoretical and practical overview of the skills, strategies, and resources required through each stage of the systemic planning process. Prerequisite: EP 7020.

EP 7050 QUALITATIVE METHODOLOGY AND APPLIED RESEARCH 3 CREDITS

This course addresses qualitative research methodologies with a particular emphasis on constructing grounded theory. Candidates will engage in the process, design, and critique of qualitative inquiry and research. Organizational and community issues will be explored and discovered through the analysis of patterns of beliefs, attitudes, and behaviors within interpersonal and intercultural contexts. Descriptive analysis of initiating the inquiry, gathering and picturing the data, recording and analyzing data, and evaluating the study. Prerequisite: EP 7020, EP 7030, and a course in research design.

EP 7060 LEGAL ISSUES IN POLICY MAKING 3 CREDITS

This course presents a discussion of ways institutions and their communities must deal with the legal and political environment in which they exist. Topics include current legal issues and how the stakeholders in society can use the law as a tool for social change. Institutions must advocate for positive change through the development of thoughtful legal policies and practices.

EP 7070 CONTEMPORARY SOCIAL TRENDS 3 CREDITS

Contemporary social, economical, political, and educational issues are the core of the course. They are identified in a forum that provides opportunities for the students to research current methodology together to address problems that relate to the specific roles of the course participants in their work inside or outside of the educational field. Working collaboratively, course candidates explore short-range and long range problem-solving strategies directed toward increasing their awareness of community perception and expectations, techniques for facilitating institutional change, and responding to the nature and culture of internal and external political systems and

environments as they apply to their work sites.

EP 7090 CRITICAL PERSPECTIVES FOR ARTS ADVOCACY 3 CREDITS

To be an advocate of the arts must mean in some degree to have given thought to the very nature of the arts and their function in human development and culture. This course attempts through reading, discussion, writing, and forms of “doing art” to broadly circumscribe the nature of the arts and their function within the human experience. The readings will help facilitate seminar discussions designed to explore a variety of views about how the arts, once identified and defined within human experience and culture, contribute to human flourishing by opening up a more encompassing range of choices and possibilities. To be an advocate for the arts in this sense is to realize the intimate connections that the arts evoke, as well as to encourage the expansion of social vision through public forms of conduct and communication.

EP 7100 SCHOOL LABOR RELATIONS, NEGOTIATIONS, AND PERSONNEL MANAGEMENT 3 CREDITS

Focus on policies and procedures affecting personnel management in the schools. Discussion of staffing, program and personnel evaluations, office procedures and recordkeeping, decision making, and negotiations. Emphasis on collective bargaining statutes, case law, grievance processing, mediation, employee relations boards, union security provisions, scope of bargaining, and the administration of the negotiated contract.

EP 7110 ARTS AND LEARNING 3 CREDITS

This course is designed to provide candidates with the arts leadership skills necessary for designing, implementing, assessing, and sustaining arts integration models in diverse school settings. The course will focus on the multiple roles of the arts as mediation tools offering languages for learning and methods for instructions. This course will provide candidates with theoretical and applied knowledge of comprehensive interdisciplinary multi-arts integration supporting learning in, with, and through the arts. Candidates will be introduced to the research based Integrated Instructional Model, which incorporates the components of community, problem-based learning, and arts integration. Candidates will explore the use of the arts and artistic methods through hands-on activities modeling arts-infused learning and instruction. Candidates will apply individual and group understandings to considerations of site-specific school change and sustained systemic professional development.

EP 7120 APPRECIATIVE INQUIRY 3 CREDITS

Learn to leverage change initiatives and improvement processes by discovering the positive core of an organization, team, or process. Beginning from a positive vantage point will: empower an organization, and encourage motivation and positive action, while increasing commitment and creating sustainable success.

This method has been used by the Dalai Lama, the U.N., the U.S. Navy, and a variety of major corporations, hospitals, and educational institutions. Appreciative Inquiry was originally conceived as a method for large-scale organizational development change initiative; it is now used in the following ways: as a method to improve relationships and team performance, as a program assessment tool, as a research method, and for building communities. This will be a hands-on learning experience. During the course we will cover some foundational theory and conduct an appreciative inquiry. This class will provide skills and knowledge that can be directly applied professionally or personally.

EP 7130 SHAPING POLICIES AND PRACTICES IN ARTS EDUCATION 3 CREDITS

This course is designed to provide candidates with the arts leadership skills necessary to effect and sustain changes in current educational settings toward a greater emphasis on improving the quality of arts education. Candidates will explore major concepts related to shaping policies and practices in arts education, while examining current educational systems with an eye toward systemic change. Connections will be made to the importance of sustaining and developing curriculum, sustaining arts advocacy projects and programs, and transforming educational systems to embrace learning with, about, in, and through the arts.

EP 7200 SCHOOL BUILDINGS AND TRANSPORTATION 3 CREDITS

The role of the school administrator in planning school construction projects, maintaining school facilities, and overseeing the transportation of students is the focus of the course. Also emphasizes the relationship of facilities and transportation to meet the program needs of the students while complying with state and federal regulations.

EP 7300 THE SUPERINTENDENCY AND SCHOOL DISTRICT LEADERSHIP 3 CREDITS

In-depth studies of essential knowledge bases and best practice skills required to effectively execute the responsibilities of the district-level administration, including the roles of the public school superintendent and assistant superintendent. Attention will be given to balancing three sometimes conflicting roles: instructional, managerial, and political, in an era of standards-based accountability. Prerequisites: six credits of CAGS core courses.

EP 7560 SPECIAL TOPICS IN EDUCATIONAL LEADERSHIP 1–4 CREDITS

An in-depth study of a particular topic, contemporary issue, or concern. The course will be taught by a specialist in the field or guest speakers who will meaningfully address the topic. Since topics vary, the course may be repeated with the permission of the instructor.

EP 7800 PRACTICUM IN EDUCATIONAL LEADERSHIP: THE SUPERINTENDENCY 3–6 CREDITS

A collaborative supervised field experience in one of several cooperating institutions or agencies. The purpose is to gain meaningful work experience as an administrator through applying knowledge learned in coursework to on-the-job situations. It is recommended that this course be taken near the end of the candidate's program.

EP 7810 LEADERSHIP AND LEARNING PRACTICUM 3–6 CREDITS

A collaborative supervised field experience in one of several cooperating institutions or agencies. The purpose is to gain meaningful work experience (leadership in the arts) through applying knowledge learned in coursework to on-the-job situations.

EP 7820 EXTERNSHIP 1–6 CREDITS

This externship is designed to provide opportunities for advanced level graduate candidates to study and research topics of interest at locations outside the University, often abroad. These externship placements provide candidates with an opportunity to gain new perspectives, sample different career paths, and network with leaders in education and related fields. Candidates are required to spend a minimum of 40 hours per credit hours in the externship placement and develop and present their research project.

EP 7910 INDEPENDENT STUDY 1–4 CREDITS

Enrichment of the background of students in a particular field of study through the pursuit of a special topic pertinent to their interests and abilities through research. Consent of the faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required.

EP 8000 EMERGING PERSPECTIVES ON LEARNING AND DEVELOPMENT 3 CREDITS

Leaders play an important role in constructing, guiding, and improving learning in organizations. This course explores research-based discoveries and insights about the brain, learning, and development from multiple disciplines. Topics will include current developmental concepts as they are connected to understanding people, organizations, and policy settings.

EP 8010 PROGRAM EVALUATION: THEORY AND PRACTICE 3 CREDITS

This course engages students in understanding and using the theory and practice of program assessment and evaluation, including the effective communication of results. Students work directly with an agency or program to design an evaluation proposal. Various methodologies and approaches are investigated. Students discuss how to use data to inform decisions and to plan and assess programs. Prerequisites: a research design course and a qualitative research course; member of the PSU EdD cohort.

EP 8020 ETHICAL LEADERSHIP AND ADVOCACY 3 CREDITS

This course focuses on ethical leadership and advocacy with an emphasis on personal and professional standards. Students apply ethical decision-making models to dilemmas drawn from professional contexts. The psychological and moral development needed to effectively advocate for social justice is considered. Students will demonstrate understanding of effective advocacy at the individual, community, and socio-political levels. Prerequisite: Member of the PSU EdD cohort.

EP 8030 LEADERSHIP IN A DIVERSE WORLD 3 CREDITS

Leaders often find themselves making decisions, facilitating programs, and mediating conflicts that emanate from the many ways in which humans differ, including ethnicity, race, religion, sexual orientation, and cultural beliefs. In this course, attention will be given to central topics and critical issues that address global leadership competencies in working with diverse populations. Students will critically examine the complexity of culture, the building of community, and the promotion of social justice from individual, community, and global perspectives. Furthermore, students will consider and evaluate both reactive and proactive roles for leaders in educational, social, and political settings.

EP 8040 RESOURCE PLANNING AND STEWARDSHIP 3 CREDITS

Leaders are expected to develop policies and implement practices that maximize the financial, environmental, material, technological, and human resources of their organization. Through the investigation of case studies, site visitations, and research, students will explore exemplary practices and potential approaches for the best use of an organization's resources. Topics will include: budgetary practices with high accountability factors, energy programs, recycling resources, employing technology while containing costs, and innovative personnel practices.

EP 8050 VISION: SYNERGY AND SYNTHESIS 3 CREDITS

Leaders are expected to facilitate the creation of a vision that drives their organization forward. Through readings, responses to interactive lectures, and participation in experiential exercises and group discussions, students will explore opportunities for restructuring organizations to create dynamic workplaces and synergistic organizations. Students will also examine present and emerging paradigms in the areas of behavioral science, psychology, and neuroscience so they may ascertain the impact of these belief systems on individuals and organizations. Prerequisite: EP 8000.

EP 8060 DOCTORAL SEMINAR: WRITING THE PROPOSAL 3 CREDITS

In this course, candidates are expected to craft a high quality comprehensive and compelling prospectus for their dissertation research proposal that is tailored to their interests and discipline. The seminar topics focus on helping students design a research study and write a dissertation proposal. (Prerequisites: Successful completion of these doctoral core courses: EP 8000, EP 8010, EP 8020, EP 8030, EP 8040, and EP 8050).

EP 8070 DISSERTATION BLOCK I (REVIEW OF LITERATURE) 3 CREDITS

EP 8080 DISSERTATION BLOCK I (METHODOLOGY AND PROPOSAL DEFENSE) 3 CREDITS

EP 8090 DISSERTATION BLOCK I (DATA GATHERING AND ANALYSIS, CONCLUSIONS, AND DISSERTATIONS DEFENSE) 3 CREDITS

These courses serve as culminating experiences in the Doctor of Education program, building on research conducted throughout the coursework and resulting in extensive research and writing on a topic appropriate to a candidate's program, under direction of a project advisor. Candidates' projects demonstrate comprehensive understandings of the knowledge and practices of their selected field of study. These doctoral seminars are organized into a sequence to support the writing of the dissertation and should be taken in order: writing the proposal, writing the literature review and methods sections, collecting data and analyzing findings, and writing up the results and conclusions or discussions.

EP 8820 EXTERNSHIP 3-6 CREDITS

The externship represents an important stage in the preparation of doctoral candidates. The externship provides an opportunity to explore and research topics of interest related to the dissertation at domestic and international locations outside the University. Externship placements allow candidates to gain new perspectives, sample different career paths, gather practical experience related to the dissertation, and network with leaders in education and related fields. Candidates work with their instructor to establish the focus and site of the externship placement. Candidates develop and present their research project at the conclusion of the externship to faculty and peers. Students should be aware that a background check might be a requirement of certain externship sites.

ENVIRONMENTAL SCIENCE AND POLICY

ESP 5000 ENVIRONMENTAL SCIENCE 3 CREDITS

Students in this course will be introduced to the sciences fundamental to the understanding of major environmental issues. The adverse impacts being imposed on our air, water, and land resources will be explored. Students will gain a better

understanding of aspects of the physical, chemical, and biological sciences that define environmental issues; the role of sound science in contemporary environmental policy; and experience in researching and presenting a contemporary environmental science topic.

ESP 5040 ENVIRONMENTAL CONSULTING 3 CREDITS

This course is designed to train students on scientific degree tracks to become valuable employees in the environmental consulting industry by introducing them to the technical skills, project planning, and business management skills in demand by environmental consulting firms. The course focuses on the technical aspects in areas such as brown-field redevelopment, natural resources and environmental permitting, environmental compliance, sustainable development planning, etc. Course elements stress the use of industry-standard procedures and state regulations, data and information management, report preparation, development of findings and opinions, and verbal presentations.

ESP 5120 ECOLOGY AND HISTORY OF THE WHITE MOUNTAINS OF NEW HAMPSHIRE 3 CREDITS

This course will be a survey of the history and workings of the forests of the White Mountain region. The course will focus on the northern hardwood forest, but also include the spruce and fir zone and tundra. Class periods will emphasize the reading and discussion of the primary literature, texts, and popular writings, such as the multitude of good logging-era books. Field trips will be a key component of the course.

ESP 5140 WINTER ECOLOGY 3 CREDITS

Examines the natural processes and stresses of cold environments, and how plants and animals adapt to winter and cold climates. The ecologically important aspects of wintertime physical and biological conditions are explored. Causes of winter and the dynamics of cold temperatures, snow, and ice are investigated.

ESP 5150 GLACIAL AND PERIGLACIAL GEOLOGY 3 CREDITS

Glaciation has strongly shaped the New England landscape and blanketed it with diverse sediments that influence its hydrology, biology, and human development. The ice sheets of Greenland and Antarctica, themselves of significant societal concern, are remnants of ice sheets that formerly covered 30 percent of the Earth's land surface. The course will introduce glaciers and the processes and products of glacier and cold-region erosion and deposition. The course will emphasize the development, form, and properties of New England glacial sediments but cover the global record. The glacial-geologic methods learned will be applied to ongoing investigations of glacier and climate history around the planet.

ESP 5210 FOREST ECOSYSTEMS 3 CREDITS

The course will be structured around the advanced methods that have enhanced our understating of forest ecosystems. The course will explore concepts and techniques to address the changes in climatic cycles, the implications of wide-scale pollution, fire, and other ecological disturbances that have an effect on forests ecosystems. Topics to be covered include forest water and biogeochemical cycles, forest ecology, forest diversity, and global forest ecology. A field trip to the Hubbard Brook Experimental Forest or another location in the White Mountain National Forest is included. Prerequisite: demonstration of competency in biogeochemistry, chemistry, ecology, and quantitative analysis; or permission of instructor.

ESP 5300 FIELD METHODS IN WATER RESOURCES 1 CREDIT

This course will focus on hydrologic and climatic field measurements and computations useful in watershed management and hydrology. It will involve the collection, compilation, and interpretation of data and assessing error, and learning about fundamental hydrologic properties. Course complements Watershed Hydrology.

ESP 5310 SNOW HYDROLOGY 2 CREDITS

This course will look at the role of snow in the hydrologic cycle with emphasize on measurements, atmospheric formation, snow distribution and metamorphosis, snowmelt and accumulation, runoff prediction, snow chemistry, and forest and land-use interaction effects. This is a field- and lecture-based course taught over an intensive period in the winter. Prerequisite: a physical geography, hydrology, or equivalent course, or permission of the instructor.

ESP 5320 WATERSHED HYDROLOGY 3 CREDITS

This course will provide a qualitative and quantitative understanding of concepts and physical principles governing the occurrence, distribution, and circulation of water near Earth's surface. Emphasis will be on the physical understanding and parameterization of hydrologic processes, such as how rainfall and snowmelt become streamflow, evapotranspiration, and groundwater. This course is expected to serve as prerequisite to Watershed Management and Snow Hydrology, and co- or prerequisite to Field Methods in Water Resources.

ESP 5330 WATERSHED MANAGEMENT AND PLANNING 3 CREDITS

Managing human impacts on watersheds and water resources, and understanding the interrelationships among land use, soil, and water will be addressed. Watershed management will focus on controlling the amount and timing of water yield, stormflow, water quality, and sedimentation, with socio-economic considerations. Human uses of and impacts on water are examined with an emphasis on principles of water resource and watershed planning. Prerequisite: a prior hydrology course or permission

from the instructor.

ESP 5390 TRAVEL STUDY IN ENVIRONMENTAL SCIENCE AND POLICY 2-3 CREDITS

Periodically, travel study courses will be offered that explore environmental science and policy topics and methods in different environments. These courses are designed to enhance students' skills and understanding with an emphasis on the transferability of these skills to other regions.

ESP 5410 ALPINE ENVIRONMENTS 2 CREDITS

This seminar course will focus on the alpine and subalpine environments of New Hampshire including the region's flora and fauna, geology, climate, as well as human influences including recreational uses. The course includes a field portion that is integral to the course content and involves fairly strenuous hiking, since alpine areas lie at high elevations. Students should be prepared to hike 7-10 miles per field trip with elevation changes ranging from 2,000 to 4,000 feet.

ESP 5420 APPLIED HYDROGEOLOGY 3 CREDITS

This course provides comprehensive coverage of groundwater hydrology and the role of water in geologic processes from theory (i.e., principles governing the flow of groundwater) to practice with application to issues of groundwater supply, contamination, and resource management. Practical experience is gained through the use of real data sets and by the investigation of real-world problems.

ESP 5500 SPECIAL TOPICS IN ENVIRONMENTAL SCIENCE AND POLICY 1-4 CREDITS

An in-depth study of a particular topic, contemporary issue, or concern. The course will be taught by a specialist within the field being studied, or, as an alternative methodology, a faculty member will coordinate a series of guest speakers who will meaningfully address the topic. Since topics vary, the course may be repeated with permission of the instructor.

ESP 5510 LIMNOLOGY 3 CREDITS

This course will examine the structure and function of freshwater ecosystems. Topics to be covered will include the geology, chemistry, physics, and biology of such systems. Special emphasis will be given to biogeochemical cycles, energy flow and productivity, and relationships of freshwater systems to human existence. Lab work will include studies of both lotic and lentic systems.

ESP 5520 CHEMICAL LIMNOLOGY 3 CREDITS

The second course in the limnology series, providing students with an expanded understanding of the physicochemical processes that control surface water chemistry. Students will work with the substantial databases available for New England lakes, evaluating current scientific and regulatory issues, and data

validation methods. Lakes will be studied as systems that are chemically integrated with their watersheds. The focus will be on major analytes and how lakes function, although the course content may include topical issues such as trace metal mercury biogeochemistry, depending on the interests of the students. Each graduate student will lead a class session on a topic of their choice in the second half of the course. Students are expected to have a general understanding of how lakes function, familiarity with chemical principles, experience with spreadsheets, or database software.

ESP 5530 SCIENCE-BASED RESEARCH DESIGN AND DATA VISUALIZATION 3 CREDITS

This course will focus on the science-based research process from idea generation to project design to communication of results. The first part of the course will focus on the science-based process of constructing a compelling research question and designing a research program to address the question. The middle part of the course will address data visualization as a powerful means of communicating research results. The final part of the course will teach students how to best communicate science-based research or technical ideas through a variety of media types (e.g., presentations, web sites, posters, etc.). Prerequisite: Demonstrated competency in sciences and quantitative analysis; or permission of instructor.

ESP 5540 MASTER'S THESIS OUTREACH 1 CREDIT

The Center for the Environment at Plymouth State University includes outreach in its mission. The center works on applied environmental problems and the engagement of local communities and organizations in its work and through the work of the graduate students in Environmental Science and Policy. In order to prepare students to be better communicators of science, this course will introduce outreach and science communication concepts and help students in developing outreach skills. This course is designed to be taken along with ESP 5900 Master's Thesis Research, and students will be required to complete an outreach project or activity related to their thesis research. Creative methods and activities will be encouraged.

ESP 5550 ENVIRONMENTAL ECONOMICS 3 CREDITS

This course analyzes the theoretical tools and empirical techniques necessary for understanding of resource and environmental economics. The course gives a special emphasis to analyzing environmental problems using quantitative economic approaches.

ESP 5560 INDEPENDENT ENVIRONMENTAL RESEARCH OUTREACH 1 CREDIT

The Center for the Environment at Plymouth State University includes outreach in its mission. The center works on applied environmental problems and the engagement of local communities and organizations in its work and through the work of the

graduate students in Environmental Science and Policy. In order to prepare students to be better communicators of science, this course will introduce outreach and science communication concepts and help students in developing outreach skills. This course is designed to be taken along with ESP 5920 Independent Environmental Research, and students will be required to complete an outreach project or activity related to their independent environmental research project. Creative methods and activities will be encouraged.

ESP 5570 HUMBOLDT FIELD COURSES 2-3 CREDITS

The Humboldt Field Research Institute is based in Steuben, Maine, and is known for an extensive series of advanced and professional-level natural history field seminars offered since 1987. HFRI is east of the Schoodic section of Acadia National Park and west of the Petit Manan National Wildlife Refuge, and provides an excellent site for teaching field techniques. Weeklong summer field course and seminars are taught by recognized international experts and cover a broad range of specialized subjects, including many that are not typically taught at academic institutions. These courses will give students an opportunity to learn field research techniques on a variety of topics. There will be an extra fee for room and board.

ESP 5580 CLIMATE VARIABILITY AND CHANGE 3 CREDITS

This course offers an interdisciplinary introduction to the principles of climate and climate variability. Climate change prediction and the scientific bases for global climate change assessments will be discussed. Key topics are the physical climate system and its variability, and the interactions among climate and biophysical components. Common threads include the use of observations and models, the consideration of multiple scales of variability and trends (temporal and spatial), and the linkages among aspects of climate change science.

ESP 5590 DATA VISUALIZATION AND COMMUNICATION 2 CREDITS

Visualizing data and communicating their meaning is an important part of science and translating science to laypersons. This course will explore communicating data effectively to technical and non-technical audiences. Students will learn how to display different types of environmentally related data and communicate study results successfully in presentations and written formats. This course contributes to the communication requirement of the MS in Environmental Science and Policy program.

ESP 5610 ENVIRONMENT AND SOCIETY 3 CREDITS

This course will introduce students to the study of environmental sociology and develop critical thinking skills facilitated by the application of sociological perspectives. Environmental issues and problems are often viewed as technical ones, to be resolved by the application of scientific and technical means alone. This

common perception will be critically examined in this class. Environmental problems are problems for society that challenge and threaten our current system of organization, and are also problems of society. This class will examine material, ideal, and practical elements of environmental issues. Current environmental problems and policy issues will be debated, and their connections with society and culture will be the focus of the course. The meanings of nature and wilderness will be discussed. Other topics include environmental justice, the history and workings of the environmental movement, green washing, public attitudes toward the environment, and the idea of sustainability.

ESP 5620 ENVIRONMENTAL LAW AND POLICY 3 CREDITS

This course reflects the legal and political aspects of major environmental issues as embodied in environmental laws. The course will teach learners about the law and the policies that are the basis for environmental laws. Concurrent examination is proposed in order to provide linkage between policy and law as we will discuss real world events and issues. The course will be presented in a form to convey a robust understanding of the bigger procedural and theoretical picture in the formation, implementation, and facets for each topic. Topics include the legal process, the policy process, ownership and property rights, and how these relate to major environmental issues; water, air, waste, wildlife, and forestry. Emerging new issues will also be discussed.

ESP 5640 METHODS OF SOCIAL RESEARCH 3 CREDITS

This course will enable students to become more astute and critical consumers of social research studies through exploring the thinking behind social research and the methods used to collect, analyze, and report the findings of the social sciences. Students will gain knowledge in research design and implement an actual study of social phenomena. Skills to be presented include theory application and construction, operationalizing variables, evaluating strengths and weaknesses of research methodologies, determining causality, sampling, hypothesis formulation and testing, data collection, analysis and depiction, and proposal writing.

ESP 5650 SOCIAL MOVEMENTS AND ENVIRONMENTAL JUSTICE 3 CREDITS

Sociological examinations of social movements attempt to address one of the most important questions in sociology: how does social and cultural change actually happen? Many characteristics of modern society that are taken for granted, such as environmental awareness, voting rights, and organized labor, have their origins in the struggles of organized social movements. This course will examine the ways different social theorists and researchers analyze social movements through a focus on the environmental justice movement. The environmental justice movement asserts that throughout the world there are marked and increasing disparities between those who have access to clean and safe resources and those who do not. In this and other aspects, the environmental justice perspective differs from

traditional environmental philosophies in that it seeks to combine a concern for the natural world with a consciousness of ethnic, class, and gender discrimination.

ESP 5660 PRINCIPLES OF INTERPRETATION 3 CREDITS

This course introduces students to the basic principles and practices of the art and profession of interpretation. After completing this course students will be able to understand and relate a working definition of interpretation; discuss the history, principles, and philosophy of interpretation as it is practiced in natural resource settings; describe the basics of visitor evaluation; illustrate basic skills in interpretive research, oral presentation development, and exhibit development; demonstrate development of interpretive themes, goals, and objectives; and demonstrate competency in making thematic oral presentations and producing interpretive exhibits. For an additional fee to the National Association for Interpretation, students will have an opportunity to become a Certified Interpretive Guide (CIG). This option will be explained in class at the beginning of the semester.

ESP 5680 SOCIAL MARKETING IN ENVIRONMENTAL EDUCATION 1-4 CREDITS

Examines effective stewardship or environmental education outreach programs that apply strategic communications, marketing, branding, and evaluation processes that foster sustainable behavioral change toward stewarding natural resources. The course will focus on research studies on effective programs and how the best practices can inform design of new initiatives. Participants will examine prevailing public environmental attitudes and knowledge, explore the issue of motivating people beyond knowledge to action, and review the role of social marketing in behavior change and environmental education.

ESP 5700 GRADUATE SEMINAR IN ECOLOGY AND THE ENVIRONMENT 3 CREDITS

This graduate seminar focuses on how ecological concepts and studies inform scientists, managers, and decision makers about the nature of and solutions to environmental problems. Specific topics, each will clearly demonstrate the central role of ecology in understanding ecosystem function and how ecosystems respond to disturbances at multiple scales. Through readings and discussion, students become knowledgeable and critical of ecological theory and practice. The concepts are fleshed out through case studies taken directly from peer-reviewed literature. Prerequisite: Demonstrated competency in the principles of ecology, including ecosystem ecology, landscape ecology and/or community ecology; or permission of the instructor.

ESP 5710 SCIENCE COLLOQUIUM SERIES 1 CREDIT

This graduate seminar is designed to be a core course in the environmental science and policy program. It will focus on the analysis of contemporary issues in environmental science. Specific topics will vary from year to year and will be tailored to the

interests of the students enrolled and faculty interests. The course will create a foundation of knowledge of contemporary issues. It is also expected that it will help students refine their research interests as well as be exposed to new ideas through interaction with others in the course.

ESP 5720 LAND USE PLANNING SEMINAR 1–3 CREDITS
Land use planning is a dynamic field that involves the integration of a variety of components to improve communities and places. This graduate seminar will focus on furthering knowledge on specific topics related to planning and explore interrelationships between topics. Topics might include smart growth, low impact design, transportation, energy, sustainable design, drinking water protection, housing, economic development, and community involvement.

ESP 5730 CONTAMINANT HYDROLOGY 3 CREDITS
This course expands on Watershed Hydrology (ESP 5320) by taking a closer look at the contaminants carried by water as it moves through the hydrologic cycle. Studied contaminants will include water temperature (an EPA recognized contaminant), pH, nutrients, metals, and organic toxics such as pesticides. Participants will study the distribution of these contaminants and the theories necessary to understand their fate and transport in watersheds.

ESP 5740 ECOSYSTEM MANAGEMENT: PRINCIPLES AND APPLICATIONS 3 CREDITS
The course will be structured around two major themes in ecosystem management: principles and applications. The theoretical background and current status of science-based knowledge and applications will be studied based on readings from the primary literature and understanding of selected case studies. The objectives of this course are to introduce the basic conceptual and theoretical framework of ecosystem management; the important biological, ecological, and socio-economic components of ecosystem management; and the challenges of implementing ecosystem management in real landscapes. The course intends to provide an interdisciplinary environment, an opportunity to develop open-mindedness and appreciation for diverse viewpoints regarding integrated resource management, and a chance to refine communication skills. Prerequisite: Demonstrated competency in social sciences, ecology, and Geographic Information Systems; or permission of the instructor.

ESP 5750 ENVIRONMENTAL ETHICS 3 CREDITS
Ethics help us understand what constitutes a good life and how to live one, as well as address questions of right and wrong. Science can provide us with data, information, and knowledge, but it does not tell us how to live a good life. Environmental ethics apply ethical thinking to our understanding of the natural world and the relationship between humans and the earth. It can help us bridge science and our personal and organizational responsibilities in life. This course will help students develop the skills

necessary to recognize the ethics behind environmental problems and issues and the role of these ethics in leadership positions in environmental fields.

ESP 5760 NATURE OF ENVIRONMENTAL SYSTEMS 3 CREDITS
The modern world is characterized by an accelerating fragmentation and specialization of research-based information that hinders linking scientific knowledge and action to offer solutions to environmental problems. Scientists must bring together an understanding of the many components of the environment (e.g., ecological, economic, social, geophysical, etc.). This class outlines a framework that explicitly integrates social, ecological, and geological disciplines to address specific, fundamental questions related to biophysical systems, ecosystem services, and human responses and outcomes. This framework is iterative with linkages and feedbacks between biophysical and social sciences. The class will explore under which conditions an environmental system may shift from simple to complex (e.g., exhibiting surprising responses) by relying on theoretical, empirical, and methodological contributions from ecological, biophysical, and social science disciplines. Prerequisite: Demonstrated competency in social and biophysical sciences, and quantitative analysis; or permission of the instructor.

ESP 5770 SCENARIO PLANNING 3 CREDITS
Scenario planning can be an effective strategy for describing plausible future conditions under different suites of assumptions when such knowledge is needed but “true” predictions (forecasting) is impossible. When used in conjunction with simulation models, scenarios are often a valuable approach for testing assumptions in coupled human-natural and other systems characterized by high levels of irreducible uncertainty and low levels of controllability. This course provides an example of practical application of scenario planning. Essential points of the course will include recognizing the need for multiple points of view when considering complex environmental issues, and for a better appreciation of uncertainty. Collaborating with non-academic stakeholders will be an essential feature of the class. Prerequisite: Demonstrated competency in social and biophysical sciences; or permission of instructor.

ESP 5900 MASTER’S THESIS RESEARCH 1–8 CREDITS
Students select a topic in consultation with their advisor and committee. A timeline, proposal, and defense are outlined. A final thesis is prepared in accordance with program thesis guidelines.

ESP 5910 INDEPENDENT STUDY IN ENVIRONMENTAL SCIENCE AND POLICY 1–3 CREDITS
Independent study provides enrichment of the background of students through the pursuit of a special topic pertinent to their interests and abilities. It is an opportunity for an in-depth study of a problem in environmental science or policy. Consent of a faculty supervisor and the student’s advisor is required.

ESP 5920 INDEPENDENT ENVIRONMENTAL RESEARCH 1–4 CREDITS

Students select a topic and project in consultation with their advisor and committee. Collaboration with external organizations and partners is encouraged. A timeline, goals, deliverables, credits, and expected outcomes are outlined for each project.

EARLY CHILDHOOD EDUCATION

ER 5750 INDIVIDUAL RESEARCH IN EARLY CHILDHOOD 1–3 CREDITS

Designed so that students may pursue in-depth a personal interest in the field of early childhood. Students working with a faculty advisor carry out the research from design to completion. The final product must be approved by the project director. Offered according to demand.

ER 5910 INDEPENDENT STUDY IN EARLY CHILDHOOD 1–3 CREDITS

Enrichment of the background of students in education through the pursuit of a special topic pertinent to their interests and abilities. A chance for an in-depth study of a problem in the field of education. Consent of a faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required. Offered according to demand.

ENVIRONMENTAL SCIENCE

EV 5230 FRESH WATER BIOLOGY 4 CREDITS

An introduction to the aquatic environment, including the freshwater, marine, and estuarine systems. Special emphasis placed upon physical, chemical, geological, and biological variables. An ecological approach stressing zones of life, habitats, and population-community interactions. Laboratory and fieldwork are important components of the course.

EV 5360 MARINE BIOLOGY 4 CREDITS

An introduction to the organisms and their habitats for the coastal marine and estuarine environment of New England. This will be a field and laboratory study of the conspicuous marine plants and animals of the New England coast. Particular attention will be given to the collection, identification, distribution, reproduction, and ecology of intertidal marine groups. Extensive fieldwork is required.

EV 5370 WETLAND COMMUNITY ECOLOGY 4 CREDITS

This course will introduce students to unique wetland habitats using field observation, research, and the principles of community ecology. It will also examine a variety of wetland communities, paying particular attention to wetlands commonly found in New England, wetland ecological properties, and the physical factors

that control these properties, including hydrology, species interactions, disturbance, and succession. Students will discuss the local and national conservation practices, their successes and failures, and complete a writing project.

EV 5560 SPECIAL TOPICS IN ENVIRONMENTAL SCIENCE 1–4 CREDITS

An in-depth study of a particular topic, contemporary issue, or concern. The course will be taught by a specialist within the field being studied, or, as an alternative methodology, a faculty member will coordinate a series of guest speakers who will meaningfully address the topic. Since topics vary, the course may be repeated with permission of the instructor.

EV 5800 PRACTICUM IN ENVIRONMENTAL SCIENCE EDUCATION 1–3 CREDITS

A supervised field experience in one of several cooperating institutions or agencies. The purpose is to gain meaningful work experience through applying knowledge learned in previous coursework to the on-the-job situation. Commitment includes a negotiated number of hours per week. Supervision is by the institution or agency concerned and by PSU faculty.

EV 5910 INDEPENDENT STUDY IN ENVIRONMENTAL SCIENCE 1–3 CREDITS

Enrichment of the background of students in education through the pursuit of a special topic pertinent to their interests and abilities. An opportunity for an in-depth study of a problem in the field of education. Consent of a faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required.

FRENCH

FR 5910 FRENCH INDEPENDENT STUDY 1–3 CREDITS

A course of study to round out the student's background through systematic reading, intensive and extensive, to supplement coursework in the field. Selection of a reading list or a special project under faculty supervision. Consent of an appropriate faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required.

GEOGRAPHY

GE 5150 TOPICS IN GEOGRAPHY 3 CREDITS

A methodological study of selected topics such as the geography of tourism, landforms, education, economic activity, and geographic information systems.

GE 5910 INDEPENDENT STUDY IN GEOGRAPHY 1–3 CREDITS
Provides students with the opportunity to round out their background in the social sciences through reading and research, supplementing previous coursework in the field. A research paper, periodic conferences, and an oral examination may be required. Consent of a faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required.

HEALTH AND HEALING

HH 5560 TOPICS IN ALTERNATIVE HEALTH AND HEALING 3 CREDITS

Introduces the fundamental concepts of complementary and alternative health and wellness methods and practices. Participants will explore and study the psychophysiology of a wide variety of mind/body modalities and discuss the integration of these approaches with Western medicine.

HH 5570 MINDFULNESS MEDITATION: THEORY AND PRACTICE 3 CREDITS

Examines the theoretical basis for the use of meditation as a healing tool. In a meditative retreat format, participants learn and practice various types of meditation such as body scan, sitting, walking, eating, and music meditation. Extended periods of practice and interspersed with discussion, reflection, presentation, and small group work.

HH 5590 TRANSPERSONAL PSYCHOLOGY 3 CREDITS

Addresses aspects of mind and behavior that transcend individual ego and personal identity. This course considers the dimensions of consciousness, the implications of transpersonal experiences, and the connection between psychology and spirituality. Class members gain an understanding of the fundamental assumptions underlying transpersonal theory and skills in applying theory to facilitate growth, health, and well-being.

HH 5600 BODY CENTERED THERAPIES 3 CREDITS

Provides an overview of multiple therapeutic approaches by examining such techniques as massage, therapeutic touch, Rolfing, reflexology, Reiki, shiatsu, acupressure, Alexander Technique, and other therapies.

HH 5610 THE CIRCLE OF LIFE 3 CREDITS

Explores the life cycle from birth to the dying process and the ending of life, including issues concerning near-death experiences, how people die, and the meaning of death. The course examines death at different ages and within various relationships, along with stages of grieving and strategies for coping.

HH 5620 SPIRITUAL HEALTH 3 CREDITS

Provides an opportunity to explore the role of the spiritual dimensions of wellness. A process of inquiry will help students better understand the spiritual dimension of self and the relationship of spirit to the health and healing process.

HEALTH EDUCATION

HL 5150 EATING DISORDER CLINICAL 1–3 CREDITS

This clinical experience is a capstone course for those enrolled in the eating disorders certificate program. Students will be able to choose a focus on awareness, prevention, and education experience or a clinical experience working in an eating disorders treatment facility for 120 hours. Prerequisite: 12 credits of Eating Disorders certificate program.

HL 5160 EATING DISORDER AWARENESS AND PREVENTION 3 CREDITS

The focus of the course will be on increasing the student's knowledge of awareness, education, prevention, and treatment of eating disorders. Discussion will include diagnostic classifications; causes of eating disorders; history, prevalence, and treatment approaches to eating disorders; a discussion of a wellness/holistic approach to medical, nutritional, and psychological therapies; special populations, (e.g., women, children, males, and athletes); prevention programs; resources; the latest research; and information on becoming a coordinator of Eating Disorder Awareness and Prevention Week. Also presented as CO 5160.

HL 5170 TREATMENT MODALITIES FOR EATING DISORDERS 3 CREDITS

This course will be an in-depth study of the dynamics of eating disorders followed by an overview of the dominant counseling approaches used in eating disorders treatment and management. The focus will include diagnosis, psychological assessments, psychotherapeutic, and other interventions, as well as clinical issues encountered in treatment. Prerequisite: CO/HL 5160. Also presented as CO 5170.

HL 5180 NUTRITION FUNDAMENTALS AND COUNSELING IN THE RECOVERY OF EATING DISORDERS 3 CREDITS

This course will focus on nutritional education issues relevant to those interested in health and wellness for the general population, as well as those working with eating disorders clients. Discussion will include basic concepts of nutrition science and nutritional needs, evaluation of weight management methods, investigation of food facts and fallacies, and different diet plans (e.g., vegetarian and sports nutrition). Information will be presented on how the nutritionist, counselor, or health educator applies nutritional information to their clients or students. The course will also include how to present information in

nutritional counseling and education for the eating disorder client. Prerequisite: CO/HL 5160 or permission of instructor. Also presented as CO 5180.

HL 5190 MEDICAL AND PHYSIOLOGICAL ASPECTS OF EATING DISORDERS 3 CREDITS

The focus of the course will be to increase the student's knowledge of the effects eating disorders have on the body's medial systems and the physiologic function. Discussion will include diagnostic criteria and a multidisciplinary, integrative approach to assessment and management of each disorder. Emphasis will be placed on the evaluation of each body system, as well as prevention and treatment of medical complications. Prerequisite: CO/HL 5160. Also presented as CO 5190.

HL 5200 AGING AND PHYSICAL ACTIVITY 3 CREDITS

This course will be an examination of neurological, physiological, and psychosocial changes occurring during middle and late adulthood that can affect health, as well as implications for the planning, implementation, and evaluation of physical activity programs for the adult population.

HL 5300 HEALTH BEHAVIOR: THEORY AND APPLICATION 3 CREDITS

Provides graduate students an introduction to health behavioral and social science theories, premising that health behavior and behavior change programs are most beneficial when provided within a theoretical framework. Social and behavioral science theory, research, and practice as related to promoting and maintaining health behaviors will be emphasized.

HL 5560 SPECIAL TOPICS IN HEALTH EDUCATION 1–3 CREDITS

An in-depth study of a particular topic, contemporary issue, or concern. The course will be taught by a specialist within the field being studied or as an alternative methodology. A faculty member will coordinate a series of guest speakers who will meaningfully address the topic. Since topics vary, the course may be repeated with permission of the instructor. Offered according to demand.

HL 5750 INDIVIDUAL RESEARCH: HEALTH EDUCATION 1–3 CREDITS

Designed so that students may pursue, in depth, a personal interest in the field of allied health. Students, working with a faculty advisor, carry out research from design to completion. The final product must be approved by the faculty advisor or faculty committee. Offered according to demand.

HL 5800 PRACTICUM IN HEALTH EDUCATION 1–3 CREDITS

Field experience in an agency or institution involved in the planning and evaluation of health education. Work experience guided by qualified supervisors in conjunction with Plymouth

faculty. Periodic written reports, field-based projects, and comprehensive portfolio review. Offered according to demand.

HL 5910 INDEPENDENT STUDY IN HEALTH EDUCATION 1–3 CREDITS

Enrichment of the background of students in education through the pursuit of a special topic pertinent to their interests and abilities. A chance for an in-depth study of a problem in the field of education. Consent of a faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required.

HISTORY

HI 5040 AMERICAN BEGINNINGS 1600–1800 1–3 CREDITS

This course provides an in-depth exploration of early American history focusing on changes in settlement patterns, population, diversity politics, gender, and race relations. It is intended to explore and analyze the meaning of the nation's past while focusing on the creation and consolidation of American nationality.

HI 5260 HISTORICAL ARCHAEOLOGY 3 CREDITS

Introduces students to the study of historical archaeology, explores various topics from earliest colonial settlement to artifacts of today, and exposes them to the different techniques and methods used. Field trips and some outdoor classes are part of the course. Concentrates on the New England region. Spring of even years.

HI 5300 NEW HAMPSHIRE AND NEW ENGLAND HISTORY 3 CREDITS

Studying New Hampshire and New England history allows students to learn more about a particular region and to see how past events and movements at the local level interacted with or were influenced by various events and cultural changes on the national and international levels. Topics covered will create an awareness of the place of New Hampshire and New England in the various events that make up United States history.

HI 5330 NEW HAMPSHIRE AND NEW ENGLAND: HISTORICAL SITES 4 CREDITS

This purpose of this course is twofold: to introduce students to a variety of locations and historic sites throughout New England; and to allow students to analyze the historical significance of each site and use the knowledge gained to produce papers and projects useful to the student's career while furthering their research and writing skills. Many historical sites are within easy travel distance and convey the nature of change since the earliest settlement in the region. This will allow students the opportunity to explore and interpret the layered historical landscape.

HI 5370 AMERICAN MARITIME HISTORY 3 CREDITS
The development of the maritime aspect of American history from colonial times to present. Examines the growth of merchant shipping, naval developments, and the related economic and political outcomes dealing with maritime history. Students will be exposed to the application of maritime history for educational use in the elementary and secondary grades. Fall of even years.

HI 5800 TOPICS IN HISTORY 3 CREDITS
Specialized topics chosen for Graduate Seminar by individual faculty. Unscheduled.

HI 5910 INDEPENDENT STUDY 1–3 CREDITS
Provides students with the opportunity to round out their background in the social sciences through reading and research, supplementing previous coursework in the field. A research paper, periodic conferences, and an oral examination may be required. Consent of a faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required.

HEALTH PROMOTION

HP 5010 INTRODUCTION TO HEALTH EDUCATION AND HEALTH PROMOTION 3 CREDITS
Provides health educators with the opportunity to interpret concepts, purposes, philosophies, and theories of health education and wellness. Students will investigate physical, social, emotional, and intellectual factors influencing health behavior.

HP 5020 DESIGNING AND IMPLEMENTING HEALTH PROMOTION PROGRAMS 3 CREDITS
Provides students with the information and resources that will enable them to develop skills in program planning for health promotion. Needs assessment, goal and objective formulation, instructional methods and materials, program implementation, and evaluation will be included. Summer. Prerequisite: HP 5010.

HP 5030 EVALUATION OF HEALTH PROMOTION PROGRAMS 3 CREDITS
Gives students the tools and skills they need to design and conduct health program valuations. Evaluation purposes, levels, methods, designs, and measurement issues will be covered. Summer of odd years. Prerequisite: HP 5020 and ED 5030.

HP 5070 COMMUNITY HEALTH PROMOTION 3 CREDITS
The focus of this course will be to review basic program planning skills, implementation, and evaluation of community and worksite health promotion programs. The class will plan, implement, and evaluate a health promotion program (e.g., wellness fair or workshop). Students will learn grant writing skills, pamphlet and newsletter development, and will be introduced to

the field of wellness/health coaching and facilitator trainings (e.g., smoking cessation).

HP 5090 MIND BODY TECHNIQUES FOR STRESS AND HEALTH 3 CREDITS
The focus of this course will be to introduce the student to mind-body techniques for stress management and health issues. Some of the techniques will include yoga, breathing, meditation, progressive relaxation, imagery, and massage as well as an introduction to the field of integrative medicine. Some of the therapies discussed will include energy medicine, aromatherapy, and acupuncture. Will be accepted as one credit in stress management.

HP 5110 WELLNESS CONCEPTS FOR EDUCATORS 2 CREDITS
An introduction to the teaching of health education in our school systems. Organization of curriculum including content and methodology will be stressed. Fall.

HP 5200 NUTRITION 1 CREDIT
A nutritional education course with a special focus on the issues relevant to students of physical education and health education. A survey of concepts in nutrition science will be applied to the support of general wellness and active lifestyles. Offered spring term of even years.

HP 5210 FITNESS PRINCIPLES 1 CREDIT
The fitness component is designed to provide the student the opportunity to experience, research, and develop a variety of fitness activities for use in his or her future career as a health educator. The elements of physical fitness and total body wellness will be discussed and applied in diverse ways. Each student will develop and compile fitness methods appropriate for a variety of populations and settings. Offered spring term of even years.

HP 5220 DISEASE AND THE ENVIRONMENT 1 CREDIT
This course will discuss common diseases and disorders and the web of causation and wellness models related to disease and the environment. Diseases discussed will include chronic diseases, communicable diseases, and some mental health diseases. Offered spring term of even years.

HP 5230 SUBSTANCE ABUSE 1 CREDIT
This course is designed to provide students with an overview of contemporary drug use and abuse. Course content includes the determinants of drug abuse psychological, physiological, societal, and pharmacological aspects of drugs, prevention, and treatment of drug addiction, as well as information about specific drugs.

HP 5240 FIRST AID AND CPR 1 CREDIT
First Aid and CPR is designed to certify individuals in cardiopulmonary resuscitation and basic first aid. Includes breathing and cardiac emergencies for adults, children and infants, and advanced

airway management skills. Students will have the opportunity to be certified in First Aid and CPR at the end of the course. Offered Spring Term of even years.

HP 5250 CONSUMER HEALTH 1 CREDIT
The focus of this course is to identify content, resources, materials, and instructional strategies for providing consumer education to various populations. Students will discuss key issues including legal and ethical considerations, curriculum development, and resources for the school and community setting. The relationship of consumerism and health will be the underlying theme of this professional preparation course.

HP 5260 MENTAL HEALTH AND SEXUALITY 2 CREDITS
This course is designed to provide students with information relevant to contemporary mental health issues and human sexuality issues. Students will be able to identify resource, personnel, and agencies pertinent to these issues. Current theories of behavioral change will be examined. Offered spring term of even years.

HP 5560 SPECIAL TOPICS IN HEALTH PROMOTION 1–4 CREDITS
This course will cover various topics in health promotion. May be repeated with different topics.

HISTORIC PRESERVATION

HPR 5100 PRINCIPLES OF HISTORIC PRESERVATION 3 CREDITS
This course provides a foundation to historic preservation. The course will focus on principles and theories pertaining to preservation and restoration practices; recognition of architectural periods, styles, and construction methods in context of the evolution of cultural landscapes; the definition of significance and integrity in buildings and districts; strategies by which buildings and their settings have been preserved and used; and methods of reading and interpreting the cultural environment.

HPR 5200 RURAL CULTURAL ENVIRONMENT: ARCHITECTURE AND LANDSCAPE 3 CREDITS
This course uses the rural countryside as a laboratory to examine the cultural landscape. It will trace the impact of natural, cultural, economic, and technological forces on the “built” environment. The course studies the evolution of buildings and their settings, with emphasis on settlement and rural industrialization. Subjects to be discussed include the evolution of architectural styles and construction techniques, town planning and land division, the evolution of transportation, and the harnessing of water power. Although the course will use specific locales as examples, it is intended to instill general principles by which any human landscape can be examined and interpreted in relationship to natural resources and human culture.

HPR 5300 HISTORIC PRESERVATION METHODS AND DOCUMENTATION 3 CREDITS
This course is intended to provide an introduction to the field of historic preservation and to instill basic skills in researching and understanding historic structures, especially buildings and bridges. It will provide instruction in assessing the evolution and condition of structures and in recording them by written, graphic, and photographic methods. The course will also emphasize traditional methods and materials of construction, the behavior of structural components over time, and techniques of determining the original condition and subsequent changes of historic structures.

HPR 5400 HISTORIC PRESERVATION PLANNING AND MANAGEMENT 3 CREDITS
Once ignored in civic and urban planning, historic preservation is now seen as integral to the definition and protection of the cultural landscape. Historic preservation planning and cultural resource management (CRM) are accomplished through the identification, evaluation, documentation, registration, treatment, and ongoing stewardship of historic properties. This course examines the processes of preservation planning and management that have been established by the U.S. National Park Service and by comparable agencies in other countries, and illustrates the application of these standards at the federal, state, and local levels.

HPR 5500 CULTURAL PROPERTY LAW 3 CREDITS
This course examines the international, national, and state legal frameworks for the protection and movement of cultural property. Archaeological site looting, transnational antiquities trafficking, and armed conflicts threaten global cultural heritage. The international and American governments’ responses to such threats have resulted in the development of major treaties as well as the enforcement of criminal laws and customs regulations. Topics for discussion include the 1954 Hague Convention, the 1970 United Nations Educational, Scientific, and Cultural Organization (UNESCO) Convention, the International Commission of Museums (ICOM) Code of Ethics, the National Stolen Property Act, and the Cultural Property Implementation Act. The course also introduces students to important national heritage laws such as the Archaeological Resources Protection Act and the rules governing shipwrecks. State statutes and the common law regulating cultural property are also reviewed.

HPR 5600 ARCHAEOLOGICAL METHODS 3 CREDITS
Students will be exposed to archaeological field and laboratory techniques, and will learn the types of research questions that archaeologists ask while reconstructing past cultures. The course will draw upon prehistoric and historic examples; there will be many opportunities to handle artifacts in the classroom, and both terrestrial and underwater sites will be featured. There will be a minimum of two required field trips to archaeological sites

and to demonstrate equipment and techniques in the field. A significant part of the course will be devoted to demonstrating that archaeology is a preservation-oriented field, focused not just upon learning about the past but geared toward protecting and conserving the physical remains of the past for future generations to enjoy.

HPR 5700 SUSTAINABILITY AND HISTORIC PRESERVATION 3 CREDITS

What is the connection between preservation and sustainability? This course examines the role of preservation in the reassessment of the built environment to create a sustainable future. Topics to be addressed range from historic examples of sustainable cultural practices to current trends of smart growth planning, LEED standards and energy conservation in historic buildings.

HERITAGE STUDIES

HS 5100 HERITAGE STUDIES: FOUNDATIONS 3 CREDITS
Designed for those interested in bringing heritage studies to areas such as schools, museums, and historical societies. Relevant concepts and techniques used in history, geography, English, anthropology, and sociology will be presented so participants may create models for class exercises, build museum exhibits, and incorporate heritage studies methodology into their work. Participants will learn methods of social science interpretation and inference about historical events, structures, artifacts, settlement patterns, and various ideologies of the past. Multidisciplinary techniques will be used in interpretations of nearby history and in the development of materials that may be used in educating the general public and students in the classroom.

HS 5200 WORLD HERITAGE STUDIES 3 CREDITS
In this course, the European origins and international conventions of the world heritage movement are examined. Several international sites are studied in depth through slides and discussion. Sites in the United States are also considered, as are issues of natural versus cultural sites and cultural resource management. Two field trips are required.

HS 5560 SPECIAL TOPICS IN HERITAGE STUDIES 1–4 CREDITS
An in-depth study of a particular topic, contemporary issue, or concern. Taught by a specialist within the field being studied or as an alternative methodology. Since topics may vary, the course may be repeated with permission of the instructor.

HS 5620 ARCHAEOLOGICAL FIELD METHODS: PREHISTORY 2–9 CREDITS

HS 5630 ARCHAEOLOGICAL FIELD METHODS: HISTORICAL 2–9 CREDITS

HS 5640 ARCHAEOLOGICAL FIELD METHODS: NAUTICAL 2–9 CREDITS

Depending on the investigative circumstances, provides an opportunity to acquire field experience—survey, mapping, excavation, material analysis—at land or underwater sites from either the prehistoric or historical periods.

HS 5710 INTERNSHIP IN HERITAGE STUDIES 1–4 CREDITS

Advanced students and teachers in heritage studies with at least 15 graduate credits can start their internship placement. Individual placement with an organization or institution must be arranged through the heritage studies program coordinator the term before starting work. The type of work will be determined by the interest of the individual and the needs of the organization. Creation of outreach programs, field trips, tours, displays, exhibits, workshops, theme interpretations, or research utilizing resources of the organization or institution to educate the public on any topic in heritage studies. Prerequisite: 15 graduate credits or more in heritage studies.

HS 5910 INDEPENDENT STUDY 1–3 CREDITS

Provides students with the opportunity to round out their background in the social sciences through reading and research, supplementing previous coursework in the field. A research paper, periodic conferences and an oral examination may be required. Consent of a faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required.

INTEGRATED ARTS

IN 5100 EDUCATIONAL THEATRE: PROCESS TO PERFORMANCE 3 CREDITS

Students will gain experience in the process of creating and presenting a community-based educational theatre piece for family audiences. Each practicum is individually tailored to meet student needs and expectations. Students will have an opportunity to work with a variety of theatre practitioners invested in the educational theatre process.

IN 5200 MULTIDISCIPLINARY ART EXPERIENCES FOR CHILDREN 3 CREDITS

Students will gain knowledge and experience developing quality arts experiences for children through participation in a major integrated arts project based either at the University or in the community. Following this experience, students will have the opportunity to develop an integrated arts project within their own classrooms or organizations using visual arts, music, movement, and drama to bring the curriculum to life. Class dates and times will be individualized for each student in order to ensure maximum participation.

IN 5210 GRADUATE PRACTICUM IN INTEGRATED ARTS 3 CREDITS

A supervised practicum experience in a candidate's school, employment setting or at one of several cooperating institution or arts organizations in New Hampshire where additional experience in integrated arts can be gained and practiced. Commitment includes a negotiated number of hours per week and a series of journals, a portfolio, and meetings with the faculty supervisor.

IN 5300 INTERNATIONAL ARTS AND CULTURE INSTITUTE 3 CREDITS

The institute is an opportunity for students to explore a given culture through travel and participation in a specified integrated arts project. Institutes vary from year to year in the country visited and the specific project undertaken. Past projects have involved performing at an arts festival in Wakefield, England, participating in a collaborative theatre project with Lithuanian and American youth, and performing throughout South Africa with a project based on writings from all over the world on peace and justice. Following the institute, students will use the knowledge gained to design an integrated arts project for their classroom or organization.

IN 5560 SPECIAL TOPICS IN INTEGRATED ARTS 1-4 CREDITS

An in-depth study of a particular topic, contemporary issue, or concern. Taught by a specialist within the field being studied or as an alternative methodology. A faculty member will coordinate a series of guest speakers who will meaningfully address the topic. Since topics vary, the course may be repeated with permission of the instructor. Falls, springs, and summers.

IN 5970 INTEGRATING THE ARTS 3 CREDITS

Practicum-based course introduces students to the value and practical application of incorporating the arts into educational, cultural, recreational, and human service settings. In addition to classroom lecture and discussion, a series of workshops with professional artists and teachers will allow students to observe a variety of teaching methods and philosophies. Basic skills and materials will be developed and discussed in creative drama, puppetry, music, theatre, poetry, art, and movement. Winters and summers.

LANGUAGE AND LINGUISTICS

LL 5003 LANGUAGE ACQUISITION 3 CREDITS

This course will examine the nature of first and second language acquisition and development. Topics include first language acquisition, second language acquisition by children and adults, bilingualism, and their applications to language teaching. The course provides an overview of current theories of language acquisition.

LL 5004 LANGUAGE AND LINGUISTICS 3 CREDITS

Provides prospective language teachers with an introduction to the study of language. Principal topics include sociolinguistic theories, language variation, and pragmatics; and the classroom implications of phonology, morphology, semantics, and syntax.

LL 5005 FOUNDATIONS OF TESOL METHODOLOGY 3 CREDITS

Participants learn the foundations of communicative language teaching to non-native speakers in multicultural and homogenous classrooms. Topics include content-based instruction, teaching of the four skills, curriculum development, and lesson planning and execution. Participants acquire and practice the skills needed to teach language to students of all ages and abilities.

LL 5006 LANGUAGE EVALUATION ASSESSMENT 3 CREDITS

Participants in this course explore different approaches for creating, evaluating, and scoring both formal and informal language assessment measures for students of different ages and ability levels. Topics include authentic communicative assessment measures; portfolio assessment, standardized testing, test biases, and testing different skills. This course foregrounds authentic and useful classroom language assessment measures.

LL 5007 ESOL LITERACY 3 CREDITS

Participants in this course examine the theories and practice of second language reading and writing acquisition. Topics include developing literate behaviors, decoding, guided reading, shared reading and writing, and the writing process. The focus of the course is to develop participants' proficiency in teaching reading and writing to students of different ages and ability levels through phonics, whole language, and integrated approaches.

LL 5008 LANGUAGE TEACHING METHODOLOGY 3 CREDITS

Participants deepen and build upon their existing knowledge of language teaching methodology, with particular attention to content-area instruction, curriculum development, and the use of technology in language education. Course provides an in-depth examination and extensive hands-on application of different ways in which technology can be used in the language classroom to facilitate learning and promote language acquisition. Participants explore the use of a broad range of digital and interactive media, and Web 2.0 technology. Students will create content-area, technology-rich lessons which promote language acquisition for language learners of different ages and abilities.

LL 5009 INTERCULTURAL COMMUNICATION IN MULTICULTURAL CLASSROOMS 3 CREDITS

This course examines the importance of cultural perspectives in language education for non-native speakers. Emphasis is placed on understanding the role of acculturation on academic success, and programmatic alternatives and pedagogy for English

language learners in a pluralistic society. The course explores the impact of cultural backgrounds of language-minority children and their families, and their adjustment to a new society, on language acquisition and school achievement.

LL 5010 PRACTICUM IN TESOL 6 CREDITS

This practicum serves as field experience for ESOL certification candidates and for students taking a Self-Designed MEd with a concentration in TESOL but without K–12 certification. A candidate seeking ESOL teacher certification must do the practicum in a New Hampshire public school; a candidate not seeking ESOL teacher certification can do the practicum in any approved setting. Commitment includes regular meetings with the course instructor and the development of a professional portfolio that fulfills all NH required teacher competencies. Supervision will be done jointly by the cooperating institution and Plymouth State University faculty. Permission of instructor is required.

LL 5050 MAINSTREAM CLASSROOM STRATEGIES FOR ENGLISH LANGUAGE LEARNERS 3 CREDITS

This course is designed especially for mainstream teachers who want to know more about how to better meet the needs of English language learners (ELLs) in their classroom. It provides an in-depth examination of widely-used, evidence-based techniques for teaching non-native speakers of English within the mainstream classroom. In addition to an overview of current theories for teaching English language learners, the course foregrounds strategies and practical hands-on ways for engaging, teaching and assessing ELLs within the K-12 mainstream classroom. Participants gain a theoretical grounding as well as practice with scaffolding content for language learners, and developing individualized learner strategies. This course includes instruction in using CALLA, the Cognitive Academic Language Learning Approach, and SIOP (Sheltered Instruction Observation Protocol), with ELLs.

LL 5170 FOREIGN LANGUAGE METHODOLOGY K–12 3 CREDITS

This course will introduce students to the theories underlying current pedagogical approaches to foreign language instruction; to assist the student in collecting, creating, and adapting instructional materials appropriate to elementary, middle, and senior high school foreign language courses; to assist the student in preparing and implementing individual lesson plans, long-range planning, student assessment, text book evaluation, and the use of technology; and to prepare the student for a successful student teaching experience.

LL 5500 SPECIAL TOPICS IN LANGUAGE AND LINGUISTICS 1–3 CREDITS

An in-depth study of a particular topic, contemporary issue, or concern related to languages or linguistics. The course will be taught by a specialist or specialists within the field being studied

or as an alternative methodology. Since topics, issues, and concerns vary, the course may be repeated.

LL 5910 INDEPENDENT STUDY 1–3 CREDITS

Advanced work in a specialized area, selected, and pursued in consultation with a faculty advisor. Consent of a faculty supervisor, department chair or program coordinator, and the associate vice president for the College of Graduate Studies is required.

LIBRARY MEDIA

LM 5010 LEARNING RESOURCES CENTERS AND SERVICES 3 CREDITS

This course will focus on the role and functions of library and media centers in K–12 schools. The topics covered will include the problems of organization and management, the types of learning resources and services, and federal and state programs and standards. Examines developments and trends in library and media centers.

LM 5020 CATALOGING AND CLASSIFICATION 3 CREDITS

This course will introduce the principles of organization of information and information retrieval systems. Topics include organization of print and non-print collections, Dewey decimal classification, Library of Congress classification, Library of Congress and Sears subject headings, Anglo-American cataloging rules, and Machine-Readable Cataloging (MARC) records. Emphasis will be placed on cataloging and classification of school library materials. Library automation systems and their management, copy cataloging, and trends in technology will also be covered.

LM 5030 REFERENCE AND RESEARCH 3 CREDITS

This course will introduce students to concepts, principles, and current developments in reference and information services for the school library and media center. This will include the most important and used reference materials in both print and electronic format, evaluation of reference sources, the reference interview, bibliographic instruction, and readers' advisory.

LM 5040 INSTRUCTIONAL MATERIALS PRODUCTION AND USE 3 CREDITS

The course covers the role of instructional materials in media centers and settings of various types, emphasizing instructional design and production techniques using different media and equipment including computers.

LM 5210 PRACTICUM IN SCHOOL MEDIA 3 CREDITS

The practicum is to provide the student with a supervised field experience in one of several cooperating institutions or agencies. The purpose is to gain meaningful work experience through applying knowledge learned in previous coursework to the

on-the-job situation. Commitment includes a negotiated number of hours per week. Supervision is by the institution or agency concerned and by PSU faculty.

LM 5500 SPECIAL TOPICS IN LIBRARY MEDIA STUDIES 1-3 CREDITS

An in-depth study of a particular topic, contemporary issue, or concern. The course will be taught by a specialist within the field being studied or as an alternative methodology. Since topics vary, the course may be repeated with permission of the instructor.

LM 5910 INDEPENDENT STUDY 1-3 CREDITS

An in-depth study of a particular topic, contemporary issue, or concern. Topic must receive approval by the program coordinator.

MUSIC EDUCATION

ME 5120 NEW ENGLAND BAND DIRECTORS INSTITUTE 1 CREDIT

A multifaceted seminar intended to help participants improve upon the musical, educational, and administrative skills involved with public school instrumental music. Emphasis will be placed on new methodologies and material. The staff of guest speakers will include active educators from throughout New England as well as featured speakers whose contributions to music education have gained national or international attention. Since topics will vary, the course may be repeated. Summer.

ME 5260 INSTRUMENTAL CONDUCTING AND REPERTOIRE 3 CREDITS

The study of instrumental conducting as applied to the public school setting, with emphasis on developing effective teaching and rehearsal strategies, is the focus for this course. Study will include available published methods and pedagogical materials as well as age-appropriate study performance repertoire.

On-site observation and advising will involve one or more of the student's ensembles. Attendance at periodically scheduled on-campus seminars will also be required.

ME 5290 PRACTICUM IN INSTRUMENTAL MUSIC EDUCATION 6 CREDITS

This course will focus on the application and documentation of strategies pertaining to the musical, administrative, and pedagogical responsibilities of instrumental music teachers in the public schools. Attendance at periodically scheduled on-campus seminars will be required. Also a minimum of one year of teaching experience is necessary for this course.

ME 5300 MUSIC TECHNOLOGY FOR EDUCATORS 3 CREDITS

This course will examine the history and evolution of music technology in music education and how it impacts music curriculum development, music education, culture, and society.

It will explore music education; music administration; music notation and music sequencing software; MIDI (Musical Instrument Digital Interface) techniques, synthesis, programs, and equipment that support MIDI; music notation; and music sequencing for the music educator. Students will acquire proficiency in MIDI technology and demonstrate that proficiency by designing a curriculum that integrates music technology into the music classroom. Student must also select to work in either Finale PrintMusic or Digidesign ProTools to demonstrate mastery of MIDI and MIDI software.

ME 5500 SURVEY OF ARTS PROJECTS, PROGRAMS, AND TECHNOLOGIES 3 CREDITS

An overview of arts projects, programs, and technologies, this survey course acquaints the student with a wide variety of integrated arts experiences that have been successfully implemented into a wide range of educational, cultural, and recreational settings. Commonalities between projects and programs will be examined. Summer.

ME 5560 SPECIAL TOPICS IN MUSIC EDUCATION 1-3 CREDITS

An in-depth study of a specialized topic pertaining to contemporary issues and methodologies. The course will be taught by a specialist or series of specialists within the area under study. Since topics will vary, the course may be repeated. Summer.

ME 5600 THE ART OF CHORAL CONDUCTING A SEMINAR IN CONDUCTING TECHNIQUES 3 CREDITS

An exploration of the choral process for choral directors, general music teachers, and performing artists. The role of both gestural and verbal communication in rehearsal and performance will be examined through workshop experience. Approaches to conducting technique, rehearsal design and procedures, score preparation, programming, voice placement, public relations, and recruitment will be examined. Summer.

ME 5910 INDEPENDENT STUDY 1-3 CREDITS

Advanced work in a specialized area, selected and pursued in consultation with a faculty advisor. Consent of a faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required.

MATHEMATICS

A student, with approval from the mathematics program coordinator, may take a maximum of three undergraduate courses for graduate credit (MG 3100 or higher), if a similar course has not been included at the undergraduate level. If deemed appropriate, a project to be determined by the course instructor, in consultation with the student, will be required to obtain graduate credit.

MG 5000 MATHEMATICS CURRICULUM 1–4 CREDITS
IMPLEMENTATION

Topics in this course vary, but will focus on the implementation of standards-based curriculum materials or other recently developed curriculum materials. Also examines issues in contemporary mathematics education. Students may repeat the course with a different topic as its focus with the permission of the department chair.

MG 5010 SEMINAR IN MATHEMATICS 2–4 CREDITS
EDUCATION: (TOPIC STATED FOR EACH OFFERING)

The topic for the course is selected by the professor from current developments and issues in mathematics education, such as mathematics for exceptional children, Piaget's research, mathematics assessment, and algebra in the K–12 curriculum. Course may be repeated on a different topic with permission of the department chair.

MG 5710 TOPICS IN ALGEBRA FOR 2–4 CREDITS
ELEMENTARY/MIDDLE SCHOOL TEACHERS

Topics for this course can vary, but may focus on one or more of the following: techniques and content for developing algebraic thinking at the elementary and middle school levels; exploration of underlying themes in algebra; patterns, rates of change, linear, quadratic, and exponential functions; and generalization and equality. Students may repeat the course with a different topic as its focus with permission of the department chair.

MG 5720 TOPICS IN NUMBER THEORY 2–4 CREDITS
FOR ELEMENTARY/MIDDLE SCHOOL TEACHERS

Topics in this course vary, but may focus on one or more of the following topics traditionally found in a K–8 mathematics curriculum: primes and composites; the LCM and GCD; the Euclidean algorithm; divisibility; and modular arithmetic. Other topics may include perfect, abundant, and deficient numbers, complex numbers, and mathematical induction. A standard text on the topic will be used when appropriate. Students may repeat the course with a different topic as its focus with the permission of the department chair.

MG 5730 TOPICS IN DISCRETE MATH FOR 2–4 CREDITS
ELEMENTARY/MIDDLE SCHOOL TEACHERS

Topics in this course vary, but may focus on one or more of the following: logic, proof, set theory, and Venn diagrams; algorithmic thinking; Boolean algebra; mathematical induction; recursion relations; graph theory and networking; and relating those ideas to teaching discrete mathematics in grades K–8. Students may repeat the course with a different topic as its focus with the permission of the department chair.

MG 5740 TOPICS IN GEOMETRY FOR 2–4 CREDITS
ELEMENTARY/MIDDLE SCHOOL TEACHERS

Topics for this course can vary, but may focus on one or more of

the following: analytic and transformational geometry; properties of plane and solid figures; similarity; tessellations; fractals; projective geometry; and geometry connections with the physical world. Exploration of geometric concepts may be done via hands-on activities, computer software, or calculators. Students may repeat the course with a different topic as its focus with permission of the department chair.

MG 5750 TOPICS IN STATISTICS/PROBABILITY 2–4 CREDITS
FOR ELEMENTARY/MIDDLE SCHOOL TEACHERS

Topics for this course can vary, but may focus on one or more of the following: techniques and content for teaching statistics and probability at the elementary and middle school levels; organizing and displaying university data; measures of central tendency, stem and leaf; box and scatter plots; regression analysis; and empirical and theoretical probability. Students may explore ideas through hands-on activities, computer software, or graphing calculators. Students may repeat the course with a different topic as its focus with the permission of the department chair.

MG 5760 TOPICS IN MATHEMATICS FOR 2–4 CREDITS
ELEMENTARY/MIDDLE SCHOOL TEACHERS

Topics for this course can vary, but may focus on one or more of the following ideas: problem solving; logic and proof; set theory and Venn diagrams; calculus notions; number systems; and mathematical modeling. A standard text on the topic will be used when appropriate. Students may repeat the course with a different topic as its focus with the permission of the department chair.

MG 5810 TOPICS IN ALGEBRA FOR 2–4 CREDITS
MIDDLE/SECONDARY SCHOOL TEACHERS

Topics for this course can vary, but may focus on one or more of the following: techniques and content for teaching algebra at the secondary level based on national and state recommendations; standards-based materials; relations and function; data analysis and curve fitting; sequences and series; and pre-calculus concepts' chaos and fractals: groups, rings, and fields. Students may repeat the course with a different topic as its focus with the permission of the department chair.

MG 5820 TOPICS IN NUMBER THEORY FOR 2–4 CREDITS
MIDDLE/SECONDARY SCHOOL TEACHERS

Topics in this course vary, but may focus on one or more of the following topics, which are traditionally found in the middle/secondary mathematics curriculum: prime numbers, mathematical induction, the Euclidean algorithm, divisibility, and complex numbers. Other topics explored may include Peano's postulates, Fermat's last theorem, and the well-ordering principle. A standard text on the topic will be used when appropriate. Students may repeat the course with a different topic as its focus with the permission of the department chair.

MG 5830 TOPICS IN DISCRETE MATHEMATICS 2–4 CREDITS
FOR MIDDLE/SECONDARY SCHOOL TEACHERS

Topics in this course vary, but may focus on one or more of the following: logic, proof, set theory, and Venn diagrams; algorithmic thinking; Boolean algebra; mathematical induction; recursion relations; graph theory and networking; and relating those ideas to teaching discrete mathematics in grades 7–12. Students may repeat the course with a different topic as its focus with the permission of the department chair.

MG 5840 TOPICS IN GEOMETRY FOR 2–4 CREDITS
MIDDLE/SECONDARY SCHOOL TEACHERS

Topics for this course can vary, but may focus on one or more of the following: history of Euclidean and non-Euclidean geometry; Euclidean geometries; non-Euclidean geometries; Euclidean geometries in the plane; polyhedra, analytic, and transformational geometry; projective geometry; fractals; geometry in the real world; and topology. Investigations may use computer software and Internet resources. Students may repeat the course with a different topic as its focus with permission of the department chair.

MG 5850 TOPICS IN STATISTICS/PROBABILITY 2–4 CREDITS
FOR MIDDLE/SECONDARY SCHOOL TEACHERS

Topics for this course can vary, but may focus on one or more of the following: techniques and content for teaching statistics and probability at the secondary level; organizing and displaying univariate data, stem, and leaf; box and scatter plots; regression analysis, linear programming, random sampling; confidence intervals and tests of significance; experimental design; discrete and continuous probability functions; and experimental and theoretical probability. Students may explore these ideas through hands-on activities, computer software, or graphing calculators. Students may repeat the course with a different topic as its focus with the permission of the department chair.

MG 5860 TOPICS IN MATHEMATICS FOR 2–4 CREDITS
MIDDLE/SECONDARY SCHOOL TEACHERS

Topics for this course can vary, but may focus on one or more of the following ideas: problem solving; logic and proof; set theory and Venn diagrams; topology; real analysis; complex analysis; and mathematical modeling. Standard text on the topic will be used when appropriate. Students may repeat the course with a different topic as its focus with the permission of the department chair.

MG 5870 TOPICS IN CALCULUS FOR 2–4 CREDITS
SECONDARY SCHOOL TEACHERS

Consists of topics from the study of calculus, advanced calculus, or the applications of calculus for the purpose of providing some insight into the importance and use of calculus. With the permission of the mathematics department chair, the course may be repeated for credit if the theme or topics change.

MG 5910 INDEPENDENT STUDY 1–4 CREDITS

An individual study project determined to be of value to students and the mathematics department. Students present a talk concerning some portion of their study to a department colloquium during the term. Consent of a faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required.

METEOROLOGY

MT 5110 AIR QUALITY 3 CREDITS

This course provides an extensive view of the science of air quality. Students will cover topics that include: atmospheric chemistry; air quality meteorology and forecasting techniques; and air pollution sources, sinks, and effects (atmospheric and environmental). Students will also examine historical policy issues. Spring term. This course is co-listed with MT4110 in the undergraduate curriculum.

MT 5200 TRANSPORTATION METEOROLOGY 3 CREDITS

Students will learn the various weather systems that affect different modes of transportation. In particular, road weather, aviation meteorology, and oceanic meteorology will be highlighted. Advanced weather analysis and forecasting skills will be applied in order to make forecasts tailored to various industries. Prerequisite: MT 4300, MT 4320, and any computer programming course.

MT 5300 SYNOPTIC METEOROLOGY II 3 CREDITS

Intermediate weather analysis and forecasting techniques are used to understand synoptic-scale weather systems with an emphasis on structure and evolution of extra-tropical cyclones. Topics include climatology of mid-latitude surface and upper-air flow regimes and extra tropical cyclogenesis, life cycle of extra tropical cyclones including frontal evolutions, application of hydrodynamical equations and balanced systems to weather analysis and forecasting, ageostrophic winds, and jet stream circulations. Students participate in weekly exercises culminating in a quantitative precipitation forecasting exercise at the end of the term. This course is co-listed with MT 4300 in the undergraduate curriculum.

MT 5310 DYNAMIC METEOROLOGY I 3 CREDITS

This course is an introduction to geophysical fluid dynamics including the development of the fundamental equations governing atmospheric motion, basic approximations, simplified flows, and physical interpretation of the corresponding theory. Fall term. This course is co-listed with MT 4310 in the undergraduate curriculum.

MT 5320 DYNAMIC METEOROLOGY II 3 CREDITS

This course will cover the advanced topics in geophysical fluid dynamics including circulation theory, vorticity, planetary boundary layer, quasi-geostrophic theory, and introductory numerical modeling concepts. Spring term. This course is co-listed with MT 4320 in the undergraduate curriculum.

MT 5330 SATELLITE METEOROLOGY 3 CREDITS

This course will provide students with a broad foundation on the history, theory, data, and knowledge of meteorological satellites and sensors, so that they will be able to interpret and fully use these data for operational or research applications and understand their capabilities and limitations.

MT 5340 RADAR METEOROLOGY 3 CREDITS

This course will provide a broad overview of the hardware and theory behind the application of meteorological radar data. The course will begin with a short history of radar meteorology, which will be followed by a brief summary of the radar hardware and theory applicable to meteorological use and interpretation—beam spreading, ducting, anomalous propagation, etc. The differences between reflectivity, Doppler, and polarimetric measurements will also be discussed. Much of the remainder of the course will be used to cover the different levels of NEXRAD data, the available products for each level, algorithms used to automatically analyze these data, and applying these data to real world problems, such as quantitative precipitation estimates and severe local storms detection. Prerequisite: MT 4300, MT 4320, and MT 4410.

MT 5350 BOUNDARY LAYER METEOROLOGY 3 CREDITS

This course is designed to provide the student with the fundamentals of atmospheric boundary layer (ABL) behavior, where the atmosphere is highly influenced by the Earth's surface. The student will develop an appreciation for the role of the ABL in the overall dynamics of the atmosphere. Specifically, students will come to understand the importance of fluxes in the ABL, the general diurnal structure of the ABL, the principles of turbulent flow, including Monin-Obukhov similarity theory, the application of Reynolds averaging, and turbulent kinetic energy (TKE) dissipation.

MT 5410 ATMOSPHERIC PHYSICS 3 CREDITS

This course will provide an application of the basic laws of physics to atmospheric processes. Topics discussed include gravitational effects, properties of atmospheric gases, cloud physics, solar and terrestrial radiation, atmospheric electricity, and optical and acoustical phenomena. Fall term. This course is co-listed with MT 4410 in the undergraduate curriculum.

MT 5430 CLIMATE CHANGE 3 CREDITS

This course will provide an overview of the methods for examining climate change. Included are time series analysis and

climate proxies, such as tree-ring analysis, oxygen-18/oxygen-16 ratios, and pollen and carbon-14 dating. Also covered are a variety of possible causal factors such as orbital variations, plate tectonics, volcanic eruptions, CO₂ variations, and El Niño. The results of paleoclimatic modeling are also discussed. Spring term of odd years. This course is co-listed with MT 4430 in the undergraduate curriculum.

MT 5450 ADVANCED SYNOPTIC METEOROLOGY 3 CREDITS

Use of advanced analytical techniques for multiscale weather systems throughout the globe with an emphasis on synoptic-scale, mid-latitude weather. Topics include forecasting applications of the quasi-geostrophic height tendency and omega equations, frontogenesis, Q-vector analysis, isentropic analysis, Hovmöller diagrams, potential vorticity concepts, and the use of dynamic tropopause maps. Weekly weather discussions and forecasting exercises focus on these advanced techniques and areas of current or future applied research topics. Recent articles in the scientific literature are reviewed and used throughout the course. Fall terms. This course is co-listed with MT 4450 in the undergraduate curriculum.

MT 5470 MICROMETEOROLOGY 3 CREDITS

Students will study the processes involving the exchange of momentum, heat, and moisture between the lowest portion of the atmosphere and the underlying surface of the Earth. Topics will include local energy budgets, soil heat transfer, the planetary boundary layer, turbulence, and neutral and diabatic surface layers. Spring term of even years. This course is co-listed with MT 4470 in the undergraduate curriculum.

MT 5550 TOPICS IN METEOROLOGY 3 CREDITS

A rotating series of courses relating to major subdisciplines of meteorology. Topics will include mesometeorology, tropical meteorology, and numerical weather prediction. May be repeated so that students can receive exposure to a variety of subject areas not covered in depth in the primary curriculum. This course is co-listed with MT 4550 in the undergraduate curriculum.

MT 5600 COMPUTER APPLICATIONS
IN METEOROLOGY 3 CREDITS

This course is designed as an intense introduction to the technological tools and techniques used by professional meteorologists in the analysis and display of meteorological and environmental data. Students will learn programming methodology and become proficient in the use of a number of open source and commercial software packages.

MT 5620 NUMERICAL WEATHER PREDICTIONS 3 CREDITS

This course is designed to acquaint students with the concepts, procedures, and problems associated with numerical weather prediction through discussion and actual computer applications with real and simulated data. Students will also learn about the

configuration and capabilities of current operational numerical prediction models.

MT 5700 GRADUATE SEMINAR METEOROLOGY 1 CREDIT
Provides graduate students with a forum to publicly present and discuss their results from literature reviews, case studies, or research. This is a required course for all MS in Applied Meteorology students. This course can be repeated for credit twice for a total of three credits.

MT 5800 THESIS RESEARCH 1–6 CREDITS
Students will develop and present a thesis research proposal, conduct detailed research, write a thesis, and defend the research before a faculty committee. Signature of the faculty supervisor and the meteorology program coordinator is required.

MT 5910 INDEPENDENT STUDY 1–3 CREDITS
Studies undertaken will be defined by students and subject to approval by appropriate staff members. Work may involve reading; conferences; historical, experimental, or theoretical projects; field investigation; statistical surveys; combinations of the foregoing; or other activities deemed appropriate. Students may work in a physical or biological science or in interdisciplinary areas. Students may not be granted more than three credits. Consent of a faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required.

MUSIC

MU 5540 PIANO PERFORMANCE STUDIES 1 CREDIT
Individual and/or group piano study to promote development of technique, repertoire, and musicianship.

MU 5560 SPECIAL TOPICS IN MUSIC 1–3 CREDITS
An in-depth study of a specialized topic pertaining to contemporary issues and methodologies. The course will be taught by a specialist or a series of specialists within the area under study. Since topics will vary, the course may be repeated.

MU 5910 INDEPENDENT STUDY 1–3 CREDITS
Advanced work in a specialized area selected and pursued in consultation with a faculty advisor. Consent of a faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required.

NEURODEVELOPMENTAL APPROACH TO TEACHING

ND 5000 FOUNDATIONS OF NEURODEVELOPMENTAL THEORY 2 CREDITS

This course is designed to build upon participants' existing knowledge of child development theories. In this course, the neurodevelopmental framework will be layered with child development theories to understand what a student can be expected to do at a given age (e.g., developmentally appropriate practice, DAP). Participants will become familiar with the eight neurodevelopmental learning functions of the brain and will practice the skill of observing for evidence of student learning strengths and weaknesses and link them to academic performance. Prerequisite: must be a practicing educator.

ND 5010 EFFECTIVE CLASSROOM PRACTICE 2 CREDITS
This course is designed to build on participants' familiarity with the neurodevelopmental framework through exploration of their own neurodevelopmental profile. Participants will reflect on their own neurodevelopmental strengths and weaknesses, the affect of their learning profile on their ability to learn, and, most importantly, how that particular combination of strengths and weaknesses, together with skill and knowledge, can be used to positively influence their teaching practice.

ND 5020 INSTRUCTIONAL PRACTICE 3 CREDITS
This course will provide participants with a deeper understanding of practical ways to apply a neurodevelopmental approach to teaching and learning by examining the neurodevelopmental demands of curricula, lessons, and assessments. Participants will design and implement activities, lessons, and curricula that take into consideration students' specific learning needs. Prerequisite: ND 5000.

ND 5030 COLLABORATIVE PRACTICES 2 CREDITS
This course will provide participants with a deeper understanding of practical ways to apply a neurodevelopmental approach to teaching and learning by looking at student work and addressing instructional dilemmas. Through the use of structured protocols, participants will work as a collaborative group to link observable evidence from student work samples to particular underlying neurodevelopmental functions. The process of Looking at Student Work will be used to inform participants about students as learners and identify specific strategies to support increased student achievement. Prerequisite: ND 5000 or ND 5110.

ND 5040 AUTHENTIC DATA TO ENGAGE STUDENT'S MINDS 2 CREDITS
This course will explore the research regarding student motivation and the neurodevelopmental sub-skills that support or undermine

a student's school performance, with particular focus on the role of attention in learning. Prerequisite: ND 5000, ND 5020, and ND 5050.

ND 5050 ATTENTION AND MEMORY IN LEARNING 2 CREDITS
Attention and memory play key roles in learning. This course will provide an in-depth exploration of the components of attention and memory and specific impacts they have on learning. Participants will be introduced to ways to observe for breakdowns in memory and attention and instructional strategies to support completion of tasks. Prerequisite: ND 5000 and ND 5020.

ND 5060 COLLABORATIVE INSTRUCTIONAL PRACTICES 2 CREDITS
This course will provide participants with a deeper understanding of students' different approaches to learning and how to make responsive adjustments to instruction based on observation and ongoing assessment. Participants will also learn about the nature of collaboration through examination of exemplary models. They will participate in guided instruction using protocols designed to enhance the effectiveness of collaborative practices. Participants will then apply this knowledge collaboratively to address their own questions regarding school related issues and student learning. Prerequisite: ND 5000.

ND 5100 RECONSIDERING REFERRALS TO SUPPORT TEAMS 3 CREDITS
This course will help educators involved in school-based support teams to engage in critical refinement of their current student referral process, including forms, timelines, meeting protocols, and follow-up procedures using a neurodevelopmental approach. School teams will work collaboratively on creating and implementing student analysis tools and procedures. Teams will examine systems for working efficiently and effectively to identify the needs of all students referred for support, and practical strategies to help them succeed, including ways to leverage student's strengths and areas of interest. Session note: This workshop is designed for teams of three to six educators (including at least one regular classroom teacher and one of the following: administrator, guidance counselor, school psychologist, integration specialist, special educator, study skills teacher, or 504 coordinator). The course consists of a three-day workshop and two additional full days for implementation follow-up, one on site at participants' school.

ND 5110 NEW COACHES INSTITUTE 3 CREDITS
National School Reform Faculty "Critical Friends" are groups of educators committed to improving teaching practices and student outcomes through collaborative work. Critical Friends Groups (CFGs) can be found in schools throughout the U.S.; in many schools, CFGs serve as an alternative to administrative supervision. The key to the success of CFG work is the development of an intimate yet professional community, where teachers

share their dilemmas and push one another to reflect and change. The facilitator or "coach" of the group structures the meeting through carefully selected activities or "protocols" that enable the "critical" work to occur in an atmosphere that is efficient, productive, and feels safe to each participating member. This workshop is designed to train future CFG coaches through facilitated CFG protocols and practice. Participants will be expected to go back to their home school settings and lead CFG work with their colleagues.

ND 5800 PRACTICUM 1-9 CREDITS
The practicum will provide masters' candidates with the opportunity to document implementation and integration of the neurodevelopmental approach into their teaching practice. During practicum candidates will also be required to attend advanced seminars on relevant topics. Prerequisite: ND 5000, ND 5010, ND 5020, ND 5030, ND 5040, and ND 5050.

NATURAL SCIENCE

NS 5090 SPECIAL TOPICS IN SECONDARY SCHOOL SCIENCE 1-6 CREDITS
A focused study in one of the science disciplines: life, Earth, or physical sciences. The course could include field, laboratory, computer, and classroom study under the supervision of a faculty member with expertise in the area and can be taken more than once. Unscheduled.

NS 5100 REVOLUTION IN SCIENCE 3 CREDITS
An inquiry into the way scientific models of understanding nature are reached with particular emphasis on the concept of revolutionary change in explanation. The course will consider what science is capable of knowing and how it differs with technology. Several specific revolutions will be examined, including the scientific revolution of Galileo and Newton, Lavoisier's chemical revolution, Darwin's evolution, continental drift, DNA and genetics, and relativity. Also, the role of women in science will be scrutinized to see if a revolution in the involvement of women has been achieved. Finally, students will attempt to foresee what revolutions might be going on now or might occur in the future.

NS 5110 EARTH: INSIDE AND OUT 4 CREDITS
Though the geologic record is incredibly ancient, it has only been studied intensely since the end of the nineteenth century. Since then, research in fields such as plate tectonics and climate change, as well as exploration of the deep sea floor and the inner Earth has vastly increased our understanding of geological processes. This course delves into five questions to understand how our dynamic planet evolved and what processes continue to shape it: How do geologists "read" the rocks? How has Earth evolved? What causes climate and climate change? Why are

there ocean basins, mountains, and continents? Why is Earth habitable? In the process, learners will get to know the American Museum of Natural History's Hall of Planet Earth, explore geologic time, and gain an understanding of how scientists study vast Earth systems.

NS 5111 THE SOLAR SYSTEM 4 CREDITS

The solar system is our local neighborhood in space, comprising our closest star, the sun, and the matter that surrounds it. This environment provides rich and diverse source material for a seminar on fundamental astronomical concepts like motion, collisions, and scientific investigation. Using the extensive resources available through the American Museum of Natural History, the Rose Center for Earth and Space, and AMNH's partners at NASA, the course will explore a series of questions: How did the solar system form? What can be told by looking at the surface of solar system bodies? What is an atmosphere, and how do those of different planets vary? Each week will focus on a different scientific project (such as Venus Express and the Mars rovers) to reinforce the essential concept of science as an ongoing search for better understanding of the universe.

NS 5120 THE OCEAN SYSTEM 4 CREDITS

The physical characteristics of the ocean and its related systems have framed its origin, incredible diversification of life, and amazing ecosystems, like coral reefs and mangrove forests. This seminar explores how oceanographers investigate the role that symbiotic relationships and other biological adaptations have in the dynamics of oceans, a dynamic that is being threatened by human activities and consumption.

NS 5121 WATER: ENVIRONMENTAL SCIENCE 4 CREDITS

Central to all ecosystems, water is essential to life as we know it. It shapes our planet on every level, from the chemical properties of the H₂O molecule to its central role in global climate. Poised to be to the 21st century what oil was to the 20th, water is also a critical environmental issue. Where do we find it? Is it safe to consume? Who has access to it? How can we manage this precious resource to provide an adequate supply to all the species that depend upon it? This course will focus on why water is such a critical resource, the effect of human consumption on aquatic and terrestrial ecosystems, and the social, economic, and environmental implications of water management.

NS 5130 SPACE, TIME, AND MOTION 4 CREDITS

Throughout history, humans have grappled with questions about the origin, workings, and behavior of the universe. This seminar begins with a quick tour of discovery and exploration in physics, from the ancient Greek philosophers to Galileo Galilei, Isaac Newton, and Albert Einstein. Einstein's work serves as the departure point for a detailed look at the properties of motion, time, space, matter, and energy. The course considers Einstein's special theory of relativity, his photon hypothesis, wave-particle

duality, his general theory of relativity and its implications for astrophysics and cosmology, as well as his three-decade quest for a unified field theory. It also looks at Einstein as a social and political figure, and his contributions as a social and political force. Scientist-authored essays, online interaction, videos, and Web resources enable learners to trace this historic path of discovery and explore implications of technology for society, energy production in stars, black holes, the Big Bang, and the role of the scientist in modern society.

NS 5140 GENETICS, GENOMICS, GENETHICS 4 CREDITS

Since the 1944 discovery that DNA is the universal genetic code, this young science has advanced by leaps and bounds: scientists can now decipher, examine, and modify the blueprints for life. This course emphasizes the relation between the underlying science of genetics, the study of genomes (genomics), and the social, ethical, and legal issues that this work gives rise to (genethics). Learners investigate topics such as the history of genetic discovery and molecular lab techniques, and emerge with an understanding of the science and the technology behind breakthroughs like therapeutic cloning and the sequencing of the human genome. Throughout the course, online interaction, scientist-authored essays, video, and simulations enable students to investigate genetic variation and similarities and develop a structure for thinking about ethical issues.

NS 5150 THE LINK BETWEEN DINOSAURS AND BIRDS 4 CREDITS

This course examines the evidence linking dinosaurs to modern birds and investigates how scientists study the evolutionary relationships between species. Learners are introduced to the world's largest collection of vertebrate fossils and the American Museum of Natural History's Fossil Halls, exhibiting Saurischian and Ornithischian dinosaurs. This seminar uses the method of classification called cladistics to define characteristics of a group of dinosaurs called theropods. Using anatomical evidence from fossils and living birds, a case is presented for birds being direct descendents of the theropod lineage. The course looks at the process of fossilization and how scientists look for, collect, and analyze fossils. Bird behavior, along with fossil evidence, is used to infer possible behavior (such as nesting and parental care) of extinct dinosaurs. Students examine the characteristics that make a bird a bird, and explore the bird family tree, and the possible origins of flight. The course also examines possible explanations for the extinction of most dinosaurs 65 million years ago. Scientist authored essays, a virtual exhibition tour, video, and Web resources enable students to explore geologic time, investigate clues to the origin of birds, and theorize about possible causes of extinction.

NS 5160 SHARKS AND RAYS—ECOLOGY, CLASSIFICATION, AND EVOLUTION 4 CREDITS

Sharks may be one of the most readily recognized fishes in

the water, but did you know that rays are one of their closest relatives? They share a 450 million-year evolutionary history, evolving extraordinarily successful body plans. This course examines these amazing fishes, their adaptations for survival, how they operate as top predators, how they are studied, and why shark conservation is critical. In this life science seminar, students will draw on the fossil record, museum collections, and research by museum scientist Dr. Marcelo de Carvalho to become familiar with the basic biology, ecology, diversity, and evolution of sharks and rays (the elasmobranchs). Learners will study their complex sensory systems (hearing, smelling, vision, and electrical sensing), and find out how sharks and rays use them to navigate and detect prey. Drawing on scientist-authored essays, online interaction, Web resources, and videos, the course will also illuminate the tools, techniques, and overall process of research in this field and explain current conservation efforts.

NS 5170 THE DIVERSITY OF FISHES 4 CREDITS

With well over 24,000 species alive today, the world's fishes comprise by far the largest and most diverse of all vertebrate groups. This seminar provides an introduction to this incredible diversity and looks at how scientists study fishes. This course takes students into the lab with American Museum of Natural History scientists. Students are led through the steps of an actual investigation of a group of South American catfish (*Hypoptopoma*). Using the rules of cladistics (a system of classification) students seek to determine if a lab specimen is a new species. Specimen photos from the AMNH Ichthyology Department Collections, scientist-authored essays, video, and Web resources allow students to explore the evolution, ecosystems, and biogeography of this group of animals and examine questions such as the meaning of biological success.

NS 5180 IN THE FIELD WITH SPIDERS 4 CREDITS

Spiders were hard at work long before the dinosaurs appeared, and have settled everywhere on the planet except Antarctica. Most live on land, but some spend their lives on or near water. They make their homes everywhere, from treetops to underground burrows, from suburban subdivisions to tropical caves, even 22,000 feet up on Mt. Everest. Spiders are important predators that keep many ecosystems in balance. In this life science course, students explore the concepts of morphology and classification. Learners are introduced to the anatomy of spiders, as well as the composition and use of their silk, webs, fangs, and venom. Lab, field, and collecting techniques are examined. Museum research on Australian ground spiders is also highlighted to gain insight into each of these topics. Scientist-authored essays, online interaction, Web resources, and video help us to look into the lives of spiders as well as the way they are studied through lab techniques, journaling, collection, drawing, classification, and identification. Learners will model these techniques by making their own spider collection.

NS 5190 EVOLUTION 4 CREDITS

This course draws on the American Museum of Natural History's long-standing leadership in the fields of paleontology, geology, systematics, and molecular biology to tell a modern story of evolution. Students will learn why evolution is the fundamental concept that underlies all life sciences and how it contributes to advances in medicine, public health, and conservation. The course begins by looking at how Charles Darwin developed his groundbreaking views on evolution by observing patterns in nature. Darwin's work and the perspectives of the authoring scientists—a paleontologist and an ornithologist—lay out some of the evidence for evolution. Students then examine the use of molecular and phylogenetic techniques to reconstruct evolutionary history and determine the place of an organism on the Tree of Life, which documents the evolutionary relationships among all species. Mechanisms of evolution and speciation are then covered and are followed by the origin and evolution of humans. The course concludes by examining the practical impact of evolution in the areas of human health, agriculture, and conservation. Course participants will gain a firm understanding of the basic mechanisms of evolution, including the process of speciation, and how these systems have given rise to the great diversity of life in the world today. Students will also explore how new ideas, discoveries, and technologies are modifying prior evolutionary concepts.

NS 5200 ACTION RESEARCH IN SCIENCE EDUCATION 3 CREDITS

This course is designed to be a core course offering in the MS in Science Education program. It will assist graduate students to design their action research as it relates specifically to science teaching, learning, and curriculum in middle and high school classrooms. This course will help students conceptualize and design a practical and applied classroom research project that could be the basis for presentation as the capstone experience in their graduate program. The course emphasizes a constructivist philosophy of education. The emphasis is on the teacher as inquirer actively engaged in the construction of new knowledge about science education. Emphasis is placed on telecommunication networking of teachers who are actively involved in action research projects.

NS 5260 A FOREST FOR EVERY CLASSROOM 3 CREDITS

This course will educate middle and high school teachers working in New Hampshire communities about forest stewardship issues, and provide them with tools to develop curricula that meet the state's educational standards and can be implemented using their local landscape, resources, and community for real world teaching. Prerequisite: teaching.

NS 5300 ASTROBIOLOGY 4 CREDITS

This course is an interdisciplinary study centered on the search for life in the universe. Students will participate in inquiry-based

activities and discussion in biology, physics, and robotics to explore the science of astrobiology. Students will gain hands-on experience with available online resources and current science technology enabling them to use astrobiology in the classroom to engage students in the scientific process. Prerequisite: teaching.

NS 5400 MARINE EDUCATION METHODS 3 CREDITS

This is a multidisciplinary marine education methods course that integrates economic, cultural, historical, and ecosystem considerations for learning about the marine environment. The goal is to help educators increase public understanding of critical New Hampshire marine and coastal issues. Special attention will be given to stewardship education of marine resources. Concepts of sustainable harvesting and participatory management will be emphasized. Field trips to visit marine research and education facilities on the coast will be a critical component. Dynamic, interactive Web resources, including virtual fieldtrips, will also be identified. A culminating component of the course will be organizing and advertising a community-based family marine activity night sponsored by the course participants. This event will provide students with firsthand experience in implementing and evaluating hands-on marine science learning for youth, parents, teachers, and other interested environmental educators. All materials will be aligned with national and international education standards across disciplines, including standards in environmental literacy and technology.

NS 5560 SPECIAL TOPICS IN ELEMENTARY SCHOOL SCIENCE 4 CREDITS

A laboratory and discussion-oriented content course for K–6 teachers to address specific topics in the Earth, physical, and life sciences. Text readings, research articles, and developing a curriculum unit are required. Since topics vary, the course may be repeated with permission of the instructor. Prerequisite: restricted to those who are currently teaching.

NS 5600 FIELD EXPERIENCE IN SCIENCE EDUCATION 3 CREDITS

This course is one of the core offerings in the MAT in Science Education degree program. It is a supervised placement with a science or environmental agency that offers educational programming with student groups of various ages. Students will be required to assist in the development of programs, and teach and assess participant learning in these settings. Examples of such organizations include the Squam Lakes Natural Science Center, NH Fish and Game, Squam Lakes Association, NH Audubon Society, MindFlight Summer Enrichment Program, NH Department of Environmental Services, and the Mark Sylvestre Planetarium Program.

NS 5700 SCIENCE TEACHING MIDDLE AND HIGH SCHOOL 3 CREDITS

This course is designed to be a core course offering in both the MS in Science Education and the MAT in Science Education degree programs. Several major themes such as learning theory, structure of the discipline (curriculum), teaching strategies, and the nature of science and technology applications will be presented throughout the course. The course is structured to help students develop the proficiencies needed to become a successful science teacher. Advanced learners are given a great deal of independence in learning about secondary school science teaching.

NS 5800 SEMINAR: CURRENT ISSUES IN SCIENCE EDUCATION 3 CREDITS

This core course in the MS and MAT in Science Education programs will provide the opportunity for classroom science teachers to identify and discuss practical issues that apply to their classroom as well as address state, national, and international issues. Current research findings will be used as the focus for seminar discussions, papers, and projects.

NS 5850 CAPSTONE RESEARCH PROJECT 4 CREDITS

This course is designed as a core course offering in the MS in Science Education program. The intent of this course is to implement the classroom-based research strategies developed in the action research course to promote improvement of existing teaching and learning strategies in the classroom. A research committee will be formed to assess the effectiveness of the study. A formal presentation will be made to faculty and other graduate students in one of the science colloquia during the academic year.

NS 5910 INDEPENDENT STUDY 1–3 CREDITS

Studies undertaken will be defined by students and subject to approval by appropriate staff members. Work may involve reading, conferences, historical, experimental, or theoretical projects, field investigation, statistical surveys, combinations of the foregoing, or other activities deemed appropriate. Students may work in the physical or biological sciences, or in interdisciplinary areas. Students may not be granted more than three credits. Consent of a faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required.

ORGANIZATIONAL APPROACHES TO TRANSFORMATION AND HEALING

OH 5100 FULL SPECTRUM LEADERSHIP 3 CREDITS

This course offers a study of a leadership model based on personal authenticity. The fundamental premise of this model is that effective leadership emerges from the synthesis and synergy

of body, mind, heart, and spirit to weave intention and presence into the organizational environment. Through varied learning methods participants will explore ways to foster culture that links knowledge and resources to promote a climate of transformative trust in the service of individual well-being and the organizational mission.

OH 5200 SOCIAL JUSTICE AT WORK 3 CREDITS
This course examines the role of “positive institutions” in creating and supporting the well-being of its members while maintaining its profitability or non-profit mission. Issues of power, privilege, and prejudice as challenges to the formation of ethical and socially just institutions will be explored. Topics include issues of diversity, equity, ethics, and social justice.

OH 5300 WORK AS A PERSONAL JOURNEY 3 CREDITS
This course offers an exploration of the personal, interpersonal, and transpersonal elements of work and personal growth. Through varied learning methods, participants will attend to the ways in which occupations transform us and work is transformed to support personal development. Learning will extend to the ways in which students, as followers and leaders, can cooperate to support these synchronous and reciprocal processes creatively and with intention.

OH 5700 CREATING ORGANIZATIONAL HEALTH 3 CREDITS
The course is designed as an intensive introduction to the theories, methods, and tools for building wellness concepts into the strategic planning process of organizations. The class will define the future of wellness in the workplace, evolving beyond mechanistic approaches to individual wellness and developing holistic principles leading to organizational health. At the completion of the course students will have an understanding of ways to institute a new health paradigm into organizational design.

OH 5820 WOMEN AS LEADERS 3 CREDITS
This course challenges women to consider the cultures, climates, and contexts that limit and support their capacities as leaders. Students will explore personal leadership styles, characteristics of effective leaders, and strategies for developing themselves as leaders.

PROJECT ADVENTURE

PA 5560 SPECIAL TOPICS: PROJECT ADVENTURE 1–4 CREDITS
An in-depth study of a particular topic, contemporary issue, or concern related to adventure-based programs. Topics include adventure in the classroom, leadership skills, advanced skills and standards, adventure-based counseling, approaches to prevention and early intervention, adventure programming, community partnerships, and expedition training.

PHYSICAL EDUCATION

PE 5560 SPECIAL TOPICS 1–4 CREDITS
This course will cover various topics in physical education. Since topics vary, the course may be repeated with permission of the instructor.

PE 5600 ATHLETIC ADMINISTRATION 3 CREDITS
Problems and standards connected with the administration of school and college athletics are considered, as well as the relationships with state and national athletic foundations and with conferences for athletics. The course is designed to prepare the graduate student to organize and administer a program of intramural sports or athletics at the public school level.

PE 5610 SPORT LAW 3 CREDITS
This course is designed to provide knowledge and understanding of the laws pertaining to physical education, athletics, and sport, and the factors important to schools, colleges, and sport organizations concerning liability of physical educators, coaches, and administrators.

PE 5620 SPORT FINANCE, BUDGETING, AND MARKETING 3 CREDITS
This course will cover the basic theories and principles of sport finance, budgeting, and marketing—from sport and recreational facilities to professional and amateur sports. This course will also reveal how to study and understand the market; develop a marketing and finance strategy; clarify a sport organization’s needs and goals; and implement marketing plans through sponsorship, licensing, pricing, promotions, advertising, broadcasting, and sales. Case studies that translate several professionals’ experiences into learning scenarios will be used. In addition, observations of future trends in the field will be discussed.

PE 5630 SPORT PSYCHOLOGY 3 CREDITS
This course is designed to provide the student with the theory basis of human behavior in sport settings with an emphasis on the mental aspects of behavior. Areas to be discussed are sport personology (including personality, motivation, achievement, and attributions), anxiety/arousal, attentional focus, and social/cultural manifestations of sport, including humanism, youth sport, aggression, cooperation/cohesion, and leadership.

PE 5640 SPORTS, SOCIETY, AND CULTURES 3 CREDITS
This course is designed to raise awareness about the sociology of sport and how cultural practices in the world of sports can have significant social, economic, and political consequences. Specific attention will be paid to gender, racial, class, and ethical issues, as well as to the history of sport, media and sports, money and sports, and sports violence. There will also be analysis and

discussion concerning youth sports, international sports, and the commercialization of sports. This course will give future sport managers a broad understanding of how sport impacts different groups of people in different ways throughout this country and beyond.

PE 5910 INDEPENDENT STUDY 1–3 CREDITS
Limited to students who have demonstrated their ability to do superior work in courses sponsored by the Department of Health and Human Performance, and who are considered able to do independent work. Before registering for the independent study, students should consult with the advisor concerning a program of study. Students are expected to work independently with tutorial guidance. Evidence of progress is demonstrated by papers and discussion. Consent of a faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required.

PHYSICS

PH 5910 INDEPENDENT STUDY 1–3 CREDITS
Studies undertaken will be defined by students and subject to approval by appropriate staff members. Work may involve reading, conferences, historical, experimental or theoretical projects, field investigation, statistical surveys, combinations of the foregoing, or other activities deemed appropriate. Students may work in the physical or biological sciences or in interdisciplinary areas. Students may not be granted more than three credits. Consent of a faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required.

POLITICAL SCIENCE

PO 5130 TOPICS IN POLITICAL SCIENCE 3 CREDITS
Various approaches to the study of politics, particularly functional, geographical, or theoretical problems and issue areas will be selected from time to time. These will serve as the topics to provide intellectual focus for advanced application of the political science method to the study of man. Unscheduled.

PO 5910 INDEPENDENT STUDY 1–3 CREDITS
Provides students with the opportunity to round out their background in the social sciences through reading and research, supplementing previous coursework in the field. A research paper, periodic conferences, and an oral examination may be required. Consent of a faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required.

PSYCHOLOGY

PS 5910 INDEPENDENT STUDY 1–3 CREDITS
Advanced readings and research with conferences and oral examinations provide advanced students with background and specialized knowledge relating to an area in which an appropriate course is not offered, or in which they have a special individual interest. Consent of a faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required.

READING AND WRITING

RL 5014 READING, WRITING, AND LITERATURE 3 CREDITS
This course is designed as an active and reflective experience of reading and process writing. Students will be immersed in literature and process writing as they develop a portfolio of their own work as lifelong readers and writers. They will review theory and practice regarding process writing, writing to learn, and writing across the curriculum. They will work in the format of the reading/writing connection to explore a range of non-print and print genres, including but not limited to fiction, nonfiction, poetry, fantasy, timed writing to a prompt and multicultural literature. Further topics to be examined in this course are the development of practical classroom applications of creating a literate environment, supporting the reading/writing connection in the classroom, exploration of the question “What makes good writing?”, assessment in the reading/writing workshop, the mechanical aspects of writing, and the needs of diverse learners. This course is recommended for students in the Reading and Writing master’s program and the certification program, as well as for any other students who teach reading and writing in the elementary, middle, and secondary schools.

RL 5110 RESEARCH IN READING AND WRITING 3 CREDITS
An investigation into the significant research theory and principles on the development of reading and writing, the teaching of reading and writing, the assessment of reading and writing, and the implications of this knowledge that enrich our understandings and refine our practices. From historical perspectives to current trends and issues, we will explore the transformation of the reading and writing landscape. In doing so, we will discover what research in reading and writing is; how it is used; the value of reading and writing research; how it is applied to improve practice, understanding, and reflective thought; and its role in determining best institutional practices.

RL 5170 CONTENT AREA LITERACY 3 CREDITS
To provide literacy instructors with practical suggestions, approaches, and tools to engage all K–12 students, including adolescents themselves, in focusing on improving student

reading, writing, thinking, and listening. A three-tiered model will examine the areas of student motivation, integrating literacy and learning, and sustaining literacy development. The final product will be the formation of a differentiated instructional plan in the content area demonstrating the use of strategies presented in the course. Participants will be using their own existing school curricula or be planning to use the strategies with future students. A district-wide presentation can be developed from the culmination of all students' artifacts.

RL 5300 ADVANCED CHILDREN'S/YOUNG ADULT 3 CREDITS
LITERATURE

This advanced literature course will survey prose, poetry, and wordless books for school-age students. Genres to be discussed include: picture books, traditional literature, modern fantasy, contemporary realistic fiction, historical fiction, multicultural and diversity literature, informational books, and biographies. The course is designed to help the educator evaluate and select appropriate literature to develop literature-based reading and language arts programs, as well as choosing literature for content subjects. Students will work cooperatively on research with a current issue novel and independently write and present a novel unit. Summer.

RL 5560 SPECIAL TOPICS IN READING, WRITING, 1-3 CREDITS
AND THE LANGUAGE ARTS

An in-depth study of a particular topic, contemporary issue, or concern. The course will be taught by a specialist within the field being studied or as an alternative methodology. A faculty member will coordinate a series of guest speakers who will meaningfully address the topic. Since topics vary, the course may be repeated with permission of the instructor. Offered according to demand.

RL 5710 ADVANCED DIAGNOSTIC TESTING 3 CREDITS
AND THE IMPROVEMENT OF
READING AND WRITING

Diagnostic and instructional issues presented include reading and writing development; factors related to reading and writing disabilities; varied approaches to individual diagnosis and proven emergent reading, corrective, and standardized tests; and authentic assessments currently used in reading and special education programs. Seminars in conjunction with the practicum emphasize peer coaching and the application of current literacy research. May be repeated with the permission of the instructor. Winter and summer.

RL 5750 INDEPENDENT RESEARCH IN 1-3 CREDITS
READING AND WRITING

An in-depth study of a particular topic, contemporary issue, or concern. The student will propose a topic, issue, or concern to the program advisor for approval.

RL 5760 LINGUISTIC PRINCIPLES AND METHODS 3 CREDITS
OF TEACHING ENGLISH AS A SECOND
OR OTHER LANGUAGE

In this course, participants will examine the nature of language, language systems, and language in context. The focus will be on the relevance of linguistic and sociolinguistic knowledge to teaching languages, the nature of language development, and the theory and practice of various teaching methods for different age groups and classroom situations.

RL 5770 DEVELOPING LANGUAGE AND 3 CREDITS
LITERACY FOR DIVERSE LEARNERS

In this course students will study the foundations of language/literacy processes and instruction. Topics include the psychological, cultural, and linguistic theoretical foundations; current practices, research, and historical developments; reading and writing language development related to their acquisition as well as cultural and linguistic diversity; major components of reading curriculum; major components of writing instruction; reading and writing instructional strategies and curriculum materials. The course will be in an interactive seminar/workshop format with an online component.

RL 5820 LITERACY PRACTICUM 1-3 CREDITS

This practicum focuses on leadership, collaboration, and coaching. Discussion of literacy program planning, operation, management, budget, curriculum, and evaluation. Emphasis on the role of the reading and writing specialist as researcher, leader, and change agent. Study of collaborative consultative skills, supervisory skills, staff development services, and community activities. Field-based experiences at the elementary, middle, and high school. This is the capstone course for students in the reading and writing specialist program. Winter and summer.

RL 5822 READING AND WRITING PRACTICUM 2 CREDITS

The Reading and Writing Practicum provides the student with a supervised field experience in one or several cooperating institutions or agencies. The purpose is to gain meaningful work experience through applying knowledge learned in previous course work to the on-the-job situation. This course requires 75 hours of supervised field experience. Supervision is by an on-site supervisor and by a professor from the Plymouth State University faculty.

RL 5830 PRACTICUM IN READING 1-3 CREDITS
DIAGNOSIS AND REMEDIAL READING

Analysis of the factors contributing to reading disability. Diagnosis, teaching, curriculum planning, and use of informal and formal assessments with small groups of readers in K-12 settings and supervised tutorial situations. Discussions with literacy professionals and paraprofessionals, and participation in professional development workshops. Seminars promote reflection on instructional practices and the range of services available for readers across the developmental continuum.

RL 5910 INDEPENDENT STUDY IN LANGUAGE ARTS AND LITERACY 1–3 CREDITS

Enrichment of the background of students in education through the pursuit of a special topic pertinent to their interests and abilities. An opportunity for an in-depth study of a problem in the field of education. Consent of a faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required.

RL 6120 CONNECTING READING, WRITING, AND MATHEMATICS IN THE ELEMENTARY CLASSROOM 3 CREDITS

This course will focus on the integration of reading and writing with mathematics. Methods and activities for integration will be explored. Students will be involved in a comprehensive study of ways to use reading and writing to strengthen the mathematics curriculum. Students will develop their own integrated unity plan to use in their classroom. Also presented as ED 5100.

SPECIAL EDUCATION

SE 5190 EDUCATIONAL TESTING 3 CREDITS

This course will focus on administering, scoring, interpreting, and reporting on achievement, special skill, and diagnostic tests used in special education and school psychology. The emphasis will be on diagnosis and prescriptive writing. It is restricted to special education and school psychology students.

SE 5300 SPECIAL EDUCATION LAW 3 CREDITS

This three-credit course will give participants a greater understanding of both federal and New Hampshire special education law. Time will be spent on Section 504 of the Rehabilitation Act of 1973. This course is designed and intended for teachers and special education administrators. You do not need to be a law student to succeed in this class. There is a heavy emphasis in this course on theory to practice, “practical news you can use” the next day in your profession. Students will review the most current cases and trends in special education law, analyze cases, and learn how to research both statutory and case law.

SE 5560 SPECIAL TOPICS IN SPECIAL EDUCATION 1–3 CREDITS

An in-depth study of a particular topic, contemporary issue, or concern. The course will be taught by a specialist within the field being studied or as an alternative methodology. A faculty member will coordinate a series of guest speakers who will meaningfully address the topic. Since topics vary, the course may be repeated with permission of the instructor. *Unscheduled.*

SE 5561 IDENTIFICATION OF EMOTIONAL BEHAVIOR DISORDERS 3 CREDITS

This course provides an in-depth examination and general overview of the study of behavior disorders of children and

youth in educational, clinical, and social settings. The focus of this course will be on the development and implementation of strategies for children and youth with emotional and behavioral concerns associated with atypical behaviors. Information will be presented regarding parent counseling, precision teaching, and other strategies. Basic concepts include the nature, extent, and history of the problem, and conceptual approaches to it; the identification and assessment of the problem(s) at hand; causal factors; the distinct features and elements that define and distinguish disordered emotions and behaviors; and effectively teaching students with emotional and behavioral disorders.

SE 5562 FUNCTIONAL ASSESSMENT 3 CREDITS

The purpose of this course is to develop comprehensive knowledge, skill level, and proficiency in the use and interpretation of functional assessments. The course will discuss at length behavioral support plans, interventions, and a series of resources available for implementing the behavioral plans.

SE 5563 PBIS: SCHOOL-WIDE APPROACHES FOR ALL STUDENTS 3 CREDITS

This course provides an in-depth examination of Positive Behavioral Interventions and Support (PBIS) with emphasis on school-wide approaches designed to enhance school climate and the emotional well-being of all students. Students will learn how to create and nurture a leadership team of stakeholders who are responsible for school-wide implementation as well as evidence-based strategies for improving behavior and academic achievement. Topics include developing school-wide expectations, creating a behavior matrix, designing teaching scripts to address pro social behaviors, creating a school-wide reinforcement system, determining office versus classroom referrals, designing a data-based system for behavior, evaluating the universal system using data-based decision making, and utilizing data for improving practice.

SE 5564 PBIS: COMPREHENSIVE APPROACHES FOR STUDENTS WITH INTENSE AND CHRONIC NEEDS 3 CREDITS

This course exposes students to comprehensive, multi-system approaches designed to enhance the emotional well-being and reduce the problem behavior of students with intense and chronic needs, including those identified as emotionally disturbed under the Individuals with Disabilities Education Act (IDEA). Using the Positive Behavioral Interventions and Support (PBIS) approach to systems change, students will learn how to develop and implement, in collaboration with families and community partners, a process for addressing the behavior and functioning of students who are not experiencing success with universal and targeted interventions. Topics include wraparound planning for multiple life domains, interagency coordination, family involvement, community involvement, methods for changing behavior, affect and cognitions, and evaluating the intensive system using data-based decision making.

SE 5565 PBIS SUMMER INSTITUTE 3 CREDITS
Intensive weeklong institute of workshops and presentations from the training team at CEBIS, and experts in the field of emotionally behavior-disordered students. The purpose of the 40-hour institute is to continue the ongoing professional development activities of the participants on processes and strategies involved in PBIS.

SE 5566 PBIS: TARGETED APPROACHES FOR STUDENTS AT RISK 3 CREDITS
This course addresses targeted methods designed to enhance the emotional well-being and reduce the problem behavior of students who are at risk for school failure but who do not necessarily qualify for special education services. Using the Positive Behavioral Interventions and Support (PBIS) approach to systems change, students will learn how to create and nurture a problem-solving team of professionals who are responsible for developing evidence-based strategies for improving the behavior and academic achievement of students for whom universal, school-wide approaches have been insufficient. Topics include completing functional behavioral assessments of targeted students, creating behavior intervention plans based on functional behavioral assessments, designing and implementing targeted group interventions aimed at reducing problem behavior and increasing pro-social behavior and academic achievement of targeted students, and evaluating the targeted system using data-based decision making for improving practice.

SE 5568 PBIS: FACILITATION SPECIALIST AS COACH AND RESOURCE PERSON 3 CREDITS
This course provides students with the collaboration and consultation skills necessary to enhance the emotional well-being and reduce the problem behavior of all students in schools, including those identified as emotionally disturbed under the Individuals with Disabilities Education Act (IDEA). Within the context of a Positive Behavioral Interventions and Support (PBIS) model, students will learn how to be a school-based PBIS coach in order to support the systems change process in their schools. Topics include the process of systems change, collaboration with families and community agencies, team development and building, data-based decision making, and nurturing the PBIS initiative.

SE 5570 AUTISM AND SPECTRUM DISORDERS 3 CREDITS
This course will deal with the specifics of cognitive impairment focusing on mental retardation, autism, Asperger, PDD, communication disorders, and all their subgroups. Specific definitions, special education rights and legislation will be discussed in terms of these special populations. Assessment of intellectual functioning, assessment procedures, classroom adaptations, behaviors, causes and prevention, developing curriculum and goals, independent life skills, transitions to career, and functional life skills will be discussed in detail.

SE 5571 IDENTIFYING STUDENTS WITH AUTISM AND SPECTRUM DISORDERS 3 CREDITS
The learner will gain knowledge related to the needs of students with Autism Spectrum Disorder, and will collaborate with teams to assess students to determine the existence of Autism Spectrum Disorder. Learners will incorporate the results and recommendations of educational assessments and develop appropriate treatment plans and a system for monitoring case management of students with Autism Spectrum Disorder.

SE 5572 DEVELOPMENTAL GOAL WRITING AND EVIDENCE-BASED TEACHING WITH STRATEGIES FOR STUDENTS WITH AUTISM 3 CREDITS
Learners will gain knowledge related to developmental theory and the use of empirical developmental intervention as a means of collecting data. The learner will develop measurable goals, create easy-to-use data collection sheets, and organize data efficiently. The learners will increase their understanding of evidence-based teaching strategies and interventions designed to positively affect the learning outcome of the student with autism and will incorporate this knowledge into applied teaching strategies.

SE 5573 DATA ANALYSIS FOR AUTISM AND SPECTRUM DISORDERS 3 CREDITS
The learner will analyze and interpret raw data collected and use analyzed information to formulate new developmentally appropriate goals and objectives.

SE 5581 TECHNOLOGY FOR DIVERSE LEARNERS 3 CREDITS
This course provides an overview of two federal laws (IDEA and NCLB) and examines the relationship between the Universal Design for Learning model and assistive technology. Students will be provided a hands-on experience on the assistive technology tools and online resources that can provide students with learning disabilities a set of effective learning strategies for reading, writing, organizing, note taking, researching, and presenting. Opportunities will be provided for students to develop classroom activities and curriculum planning guidelines for integrating assistive technology tools into a standards-based curriculum.

SE 5600 LANGUAGE AND LEARNING DISABILITIES 3 CREDITS
This introductory course will cover the following areas: definition of LD, reading problems, language deficits both oral and written, mathematics underachievement, social skills deficits, attention and behavioral problems, academic achievement, and co-morbidity with other disabilities, prevalence, environmental factors, standardized, criterion referenced, informal reading, curriculum-based measurement, and testing. Educational approaches such as explicit instruction, content enhancement, and placement alternatives will be explored. Current issues and future trends in the field of LD will be discussed.

SE 5601 ADVANCED PSYCHO EDUCATIONAL 3 CREDITS
ASSESSMENT OF LEARNING DISABILITIES
AND EXCEPTIONALITIES

This course is designed to provide the student with advanced diagnostic skills in learning disabilities. Participants are expected to have some prior knowledge of standardized assessment practices, learning challenges of children, teaching methods, and curriculum in general and special education. A profile of specific learning disability characteristics will be presented with corresponding assessment methods including formal assessment, responsiveness to intervention models, diagnostic prescriptive teaching, and remedial programs. This course will present the above topics paying special attention to focusing on placing them within the context of the NCATE/CEC standards below. Specific evaluation methods to include standardized assessment (e.g., Woodcock-Johnson Psychoeducational Battery III, Wechsler Individual Achievement Test II, Responsiveness to Intervention, Curriculum Based Measurement, Visual Aural Digit Span Test, Jordan Left-Right Reversal Test, Test of Written Language 3, and Comprehensive Test of Phonological Processing (CTOPP)).

SE 5750 INDIVIDUAL RESEARCH IN SPECIAL 1–3 CREDITS
EDUCATION

Designed so that students may pursue in-depth a personal interest in the field of special education. Students, working with a faculty advisor, carry out the research from design to completion. The final product must be approved by the project director. Unscheduled.

SE 5760 COLLABORATION, CONSULTATION, 3 CREDITS
AND LEADERSHIP IN SPECIAL EDUCATION

This course is designed to assist participants in examining the nature of collaboration in organizations, the consultation process, and essential leadership skills in special education. Students will learn about the nature of collaboration and examine examples of effective collaboration skills, as well as participate in guided practice of those skills. Emphasis will be given to concepts of intervention, management models, and an analysis of the variety of special education needs.

SE 5765 WORKING WITH FAMILIES AND 3 CREDITS
CHILDREN: ETHICAL AND LEGAL ISSUES

Focuses on the ethics of special education laws, regulations, and policies. Students will use case studies that pose ethical dilemmas in order to understand the complex issues underlying such issues as inclusion, labeling, IDEA, least restrictive environment (LSE) compliance, due process, parent involvement, awareness of ethical responsibilities, ethical decision making, confidentiality, record keeping, and informed consent. The spirit versus the letter and the morality of special education will also be explored. A special focus will be on transacting an ethic of care in school best practices that promote democratic decision making, advocacy, and the empowerment of parents.

SE 5770 BEHAVIORAL DISORDERS IN SCHOOL 3 CREDITS
AGED CHILDREN

This course is designed to provide teachers with increased understanding of the needs of children who display maladaptive behaviors associated with conduct disorders in school settings. Students will investigate specific causes, diagnosis, assessment methods, interventions, etiology, co-morbidity, subtypes, pharmacotherapy, the role of the classroom teacher, and possible resources.

SE 5800 PRACTICUM IN SPECIAL EDUCATION 1–6 CREDITS

A supervised field experience in one of several cooperating institutions or agencies. The purpose is to gain meaningful work experience through applying knowledge learned in previous coursework to the on-the-job situation. Commitment includes a negotiated number of hours per week. Supervision is done by the institution or agency concerned and by PSU faculty.

SE 5810 PRACTICUM IN LEARNING DISABILITIES 3 CREDITS

A student will provide direct service and experiential learning with learning-disabled students in a classroom or school setting under the supervision of an experienced special education professional. The focus of the practicum will be on identification, assessment, and remediation of learning problems. Student will need to demonstrate assessment report writing, be able to develop IEPs, and be able to implement and follow intervention plans. Total hours of practicum will be 100–300 hours, depending on present level of functioning, past experience, and present employment or role. This field course will provide the student with specific key experiences in the role of learning disabilities specialist. This course will be structured to accommodate graduate candidates who have a variety of prior school experiences. Students who do not have extensive school experiences will be required to fulfill all the requirements. This practicum is centered on competency areas that are basic to learning disabilities. This field course serves as an exit check for completion of the Learning Disabilities Specialist concentration, thus leading to certification.

SE 5820 PRACTICUM IN EMOTIONAL 1–3 CREDITS
DISABILITIES

A student will provide direct service and experiential learning to children with emotional disorders in a classroom or school setting under the supervision of an experienced special education professional. The focus of the practicum will be on identification, assessment and remediation of behavior problems. Student will need to demonstrate assessment report writing, be able to develop IEPs, (individualized educational plans) and be able to implement and follow intervention plans. Total hours of practicum will be 150 hours (50 hours per credit) depending on present level of functioning, past experience, and present employment or role. The practicum will be repeatable for credit if a student requires more training or hours to complete their

experience. This field course will provide the student with specific key experiences in the role of emotional behavioral specialist. This course will be structured to accommodate graduate candidates who have a variety of prior school experiences. Students who do not have extensive school experiences will be required to fulfill all the requirements. This practicum is centered on competency areas that are basic to emotional behavioral disorders. This field course serves as an exit check for completion of the Emotional Behavior Option, thus leading to certification.

SE 5821 INTERNSHIP SEMINAR 1–9 CREDITS

A supervised field experience in one of several cooperating institutions. The purpose is to gain meaningful work experience through applying knowledge learned in coursework to the on-the-job situation. Commitment includes 12 hours per week within the school environment over three days, and one three-hour seminar per month. Supervision is done by the cooperating school and overseen by PSU faculty.

SE 5910 INDEPENDENT STUDY IN 1–3 CREDITS
SPECIAL EDUCATION

Enrichment of the background of students in education through the pursuit of a special topic pertinent to their interests and abilities. A chance for an in-depth study of a problem in the field of education. Consent of a faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required.

SE 6040 CURRICULUM DEVELOPMENT 3 CREDITS
IN SPECIAL EDUCATION

This course is designed to assist candidates in acquiring the skills, knowledge, and competencies necessary for curriculum development as it relates to special education and the general education curricula. Each participant will have the opportunity to examine models of curriculum-based assessment designed to generate better educational programs for students with disabilities. Each student will demonstrate an understanding of the instructional process with emphasis on students with disabilities. Keys to this understanding will include management considerations, instructional practices, and evaluative and collaborative activities.

SE 7800 SPECIAL EDUCATIONAL 3–6 CREDITS
LEADERSHIP PRACTICUM

A collaborative supervised field experience in one of several cooperating institutions or agencies. The purpose is to gain meaningful work experience as a special education administrator through applying knowledge learned in coursework to on-the-job situations.

SOCIOLOGY

SO 5140 SPECIAL TOPICS IN SOCIOLOGY 3 CREDITS

Specialized topic chosen for Graduate Seminar by individual faculty. Scheduled as needed.

SO 5910 INDEPENDENT STUDY IN SOCIOLOGY 1–3 CREDITS

Independent study provides students with the opportunity to round out their background in sociology through reading and research that supplements previous coursework in the field. A research paper, periodic conferences, and an oral examination may be required. Consent of a faculty supervisor, the department chair, and the associate vice president for the College of Graduate Studies is required.

SPANISH

SP 5910 INDEPENDENT STUDY 1–3 CREDITS

A course of study to round out the student's background through systematic reading, intensive and extensive, to supplement coursework in the field. Selection of a reading list or a special project under faculty supervision. Consent of an appropriate faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required.

SCHOOL PSYCHOLOGY

SY 6010 INTRODUCTION TO SCHOOL 3 CREDITS
PSYCHOLOGY

This survey course will introduce students to the areas of assessment, treatment, and prevention of learning, behavior, and emotional problems in school-age children. Students will become familiar with a variety of psychological issues within a school environment. Students will become familiar with testing inventories as well as alternative ways of assessing children with difficulties. Ethical topics and procedures will be discussed. Students will be required to demonstrate professionalism, academic and personal integrity, and become familiar with the diverse roles and responsibilities of school psychologists. The iWebfolio will be introduced, and students will address the state standards for school psychology through the iWebfolio. The course has a 25-hour pre-practicum requirement.

SY 6200 BEHAVIORAL ASSESSMENT, ANALYSIS, 3 CREDITS
AND INTERVENTION

This course is designed to provide students with a clear, balanced presentation of the behavioral technology including theoretical paradigms, assessment methods, intervention planning and techniques, and the application of behavioral methodologies designed to increase prosocial effective behaviors and decrease

and/or eliminate socially ineffective behaviors within the school setting.

SY 6300 SOCIAL/EMOTIONAL/ BEHAVIORAL ASSESSMENT 3 CREDITS

To provide a clear, balanced presentation of the learner's social/emotional characteristics. The student will be introduced to the areas of assessment of behavior by interview, observation, and norm-referenced techniques. Functional behavior assessment will also be addressed. Objective and projective techniques will be introduced, and the student will have the opportunity to learn about the history and practical administration of these instruments.

SY 6400 ADMINISTERING INDIVIDUAL INTELLIGENCE TESTS 3 CREDITS

Students will learn about the history and theories of intelligence testing. They will develop the skill to administer two norm-referenced intelligence tests (Child and Adult Editions of Wechsler Scales), interpret the results, and write and present cogent results of their findings as it relates to the child adolescent and their learning. This course prepares school psychology candidates for the internship where they will gain proficiency in assessing cognitive ability.

SY 6700 PRACTICUM I: ASSESSMENT, INTERVENTION, AND CONSULTATION 3 CREDITS

This is a three-credit course involving 50 clock hours at a field site under the supervision of a certified school psychologist. It is intended for candidates to practice their skills in assessment, consultation, counseling, and prevention and intervention. An on-campus seminar will be given for candidates to demonstrate their skills and share their experiences. Typically, candidates would take SY 6400 Administering Individual Intelligence Tests concurrently with Practicum I. Candidates should arrange their practicum placement prior to the beginning of the course to ensure a full semester experience.

SY 6710 PRACTICUM II: INTEGRATION AND CASE STUDIES 3 CREDITS

This course involves 50 hours at a field site under the supervision of a certified school psychologist. It is intended for candidates to develop a comprehensive and holistic perspective that combines early intervention, prevention, counseling, assessment, consultation, community resources, and systems interventions as they relate to individual case studies. Candidates will follow two or more children encompassing the entire special education process from the pre-referral stage to placement progress monitoring, and documenting the entire sequence including the extent to which those children have demonstrated specific measurable outcomes. An on-campus seminar will be given for candidates to discuss their experiences during the steps of their case studies and to supplement their practicum experience with related

readings and discussion. This practicum will accommodate both models of special education identification (traditional assessment and response to intervention). Candidates will also present videos of their consultation skills and demonstrate knowledge of the ability to plan, coordinate and implement a psychological services delivery model within a school setting that includes assessment, pre-referral problem solving, crisis intervention, mental health intervention, functional skill training, collaboration, consultation, referral and counseling. Candidates should arrange their practicum placement six months prior to the beginning of the course to ensure a full semester experience.

SY 6800 SCHOOL PSYCHOLOGY INTERNSHIP AND SEMINAR 6-12 CREDITS

As the culminating component in the school psychology program, this field experience will be done in a public school setting under the supervision of a certified school psychologist. Students will also attend a seminar on campus to discuss their experiences, present psychological evaluations and interventions, and engage in mutual problem solving relative to dilemmas and issues encountered in the field experience. Prerequisites include completion of all required courses and permission of the internship instructor. Students are required to take the Praxis II exam.

THEATRE

TH 5910 INDEPENDENT STUDY 1-3 CREDITS

Advanced work in a specialized area, selected and pursued in consultation with a faculty advisor. Consent of a faculty supervisor, department chair, and the associate vice president for the College of Graduate Studies is required.

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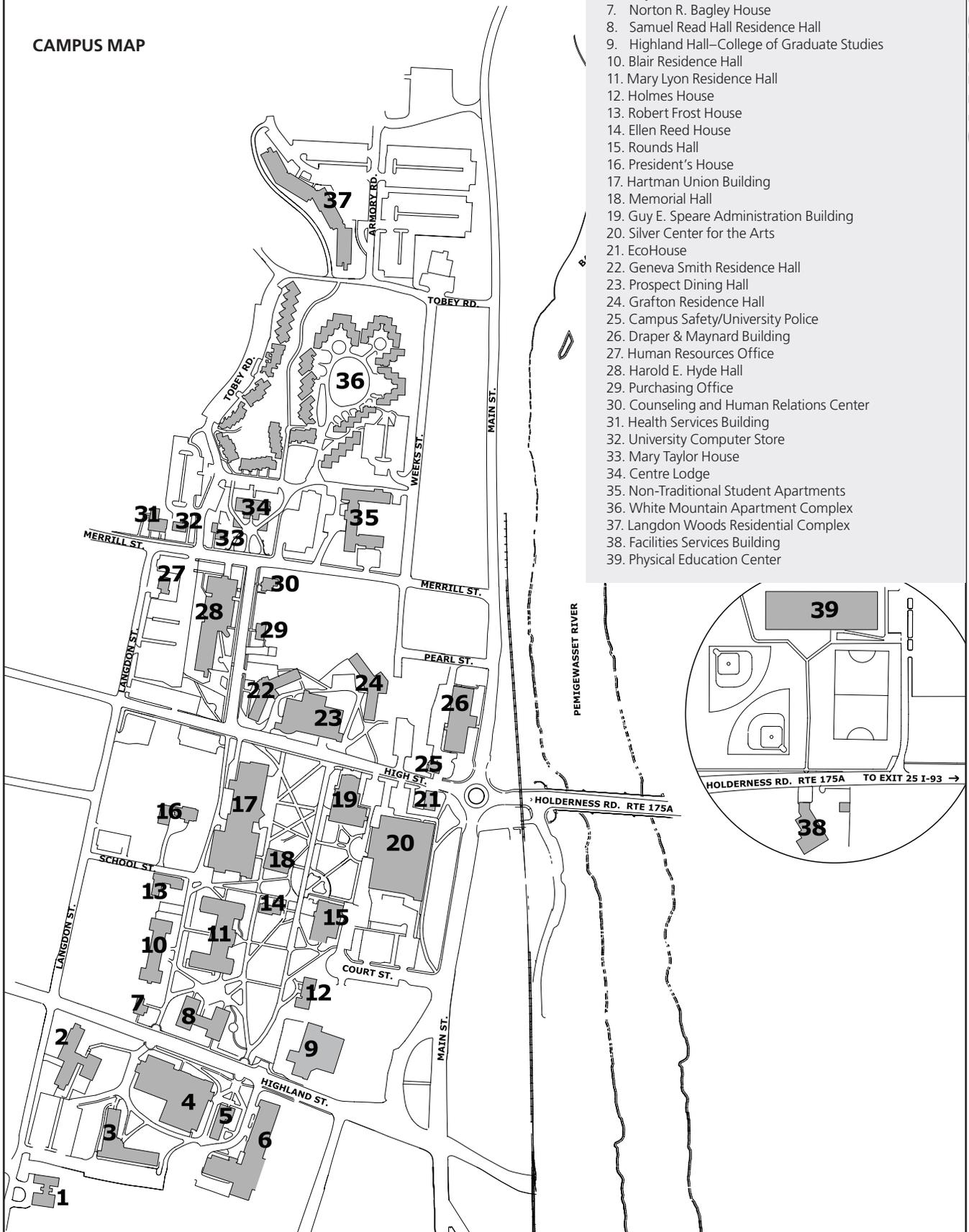
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Plymouth State University

CAMPUS MAP



1. Child Development and Family Center
2. Belknap Residence Hall
3. Pemigewasset Residence Hall
4. Herbert H. Lamson Library and Learning Commons
5. Russell House
6. Boyd Science Center
7. Norton R. Bagley House
8. Samuel Read Hall Residence Hall
9. Highland Hall—College of Graduate Studies
10. Blair Residence Hall
11. Mary Lyon Residence Hall
12. Holmes House
13. Robert Frost House
14. Ellen Reed House
15. Rounds Hall
16. President's House
17. Hartman Union Building
18. Memorial Hall
19. Guy E. Speare Administration Building
20. Silver Center for the Arts
21. EcoHouse
22. Geneva Smith Residence Hall
23. Prospect Dining Hall
24. Grafton Residence Hall
25. Campus Safety/University Police
26. Draper & Maynard Building
27. Human Resources Office
28. Harold E. Hyde Hall
29. Purchasing Office
30. Counseling and Human Relations Center
31. Health Services Building
32. University Computer Store
33. Mary Taylor House
34. Centre Lodge
35. Non-Traditional Student Apartments
36. White Mountain Apartment Complex
37. Langdon Woods Residential Complex
38. Facilities Services Building
39. Physical Education Center

CAMPUS MAP