

INTERDISCIPLINARY GRADUATE CERTIFICATE IN UNIVERSITY TEACHING

Course Options

A total of **nine** credits must be completed in at least **three** of four areas: Teaching Strategies, Student Learning/Assessment of the Learning Environment, Technology to Support Teaching & Learning, and Professional Development of the Academy.

Some courses may provide content in more than one of the four areas. You may request that a course be used in an area different from the one in which it is listed below when you submit your *preliminary* plan of study.

Courses in addition to those listed below must be approved by the Graduate School prior to use for certificate requirements. Refer to certificate information for details on how to propose alternate courses.

Teaching Strategies

ECHD 9070 Preparing Students to Teach (3 hrs.)

This course is designed to prepare students to teach in undergraduate and graduate classrooms and to familiarize students with various teaching strategies and methods, class management strategies, and evaluation practices. Students will have the opportunity to discuss various teaching-related issues and receive feedback on their presentation and teaching styles. *Offered fall semester every year.*

ENED 7010 Preparing to be an Effective Engineering Educator (3 hrs.)

Focuses on how undergraduate engineering students learn and methods for teaching engineering. Graduate students will learn about learning styles, course planning, assessment, active learning, student incivilities, ABET accreditation requirements, and effective teaching strategies. *Offered every fall semester.*

ENGL 6910 Apprenticeship in College English (1 hr.)

An apprenticeship in the teaching of freshman composition and of sophomore literature. *Offered fall, spring, and summer semester every year.*

ENGL 6911 Practicum in Teaching College Composition (3 hrs.) Prerequisite: ENGL 6910

Provides intensive training in composition pedagogy on topics including effective student conferences, grading strategies, writing workshop and peer editing techniques, revision, and topic development. Considers the different demands of teaching composition in an expository writing class and a literature-based writing class. *Offered fall semester every year.*

EPSY 8750 Practicum in College Teaching (1-3 hrs.)

Supervised practice in teaching at the college level. Students will develop skills in course organization, resource identification, lesson planning and delivery, student assessment, and techniques for course improvement. *Offered every year.*

FANR 9990 Supervised Professional Teaching Practicum in Forestry and Natural Resources (1-10 hrs.) University-level teaching, including the presentation of lectures and/or laboratory sessions under faculty supervision, at the doctoral level. The practicum provides a setting where students can think about and develop instructional materials, and venues to practice teaching. It covers most aspects of the development and execution of a college course including a course syllabus, lectures, and exercises and examination material. Not open to students with credit in FORS 9990. *Offered every semester every year.*

FANR 8990 University Teaching in Forestry and Natural Resources (1-3 hrs.) Instructional policies and procedures as well as effective pedagogical approaches for university teaching in forestry and natural resources. Through the development of a teaching portfolio, students also learn how to document their instructional activities. Permission of school. *Offered fall and spring semester every year.*

GENE 7360 Teaching Internship in Genetics (2 hrs.) Classroom teaching experience in undergraduate courses for senior graduate students under the direct supervision of a faculty member. This course provides students the opportunity to obtain supervised, documented experience in preparing and delivering lectures and/or leading discussions. *Offered fall, spring and summer semester every year.*

GRMN 7500 Teaching College German (3 hrs.) Methods for teaching foreign language and development of language skills in German. For teaching assistants in German and graduate students in German and Language Education. Taught in English, but requires proficiency in German. *Offered fall semester every year.*

GRSC 7770 (GRSC 7770E) Graduate Seminar for Teaching and Laboratory Assistants (1-3 hrs.) This course is an introduction to teaching techniques and resources for university-level instruction. It provides graduate teaching assistants with knowledge of pedagogical approaches and available support systems. Special sections (see LLED 7769) are reserved for international students, with focus on use of language, pedagogy, and cultural aspects of teaching in this country. *Offered every year.*

LLED 7769 (LLED 7769E) International Graduate Internship II (3 hrs.) Prerequisite: Score of 23 or above on the speaking sub-section of the IBTOEFL This course provides international/non-English speaking graduate teaching assistants with knowledge of pedagogical approaches and available support systems. It focuses on English language for the classroom and cultural aspects of teaching with emphasis on presentation skills and audience awareness. Can be taken in place of GRSC 7770. *Offered fall and spring semester every year.*

MARS 7360 Teaching Internship in Marine Sciences (1-2 hrs.) Prerequisite: LLED 7768; Corequisite: LLED (ELAN) 7769 Classroom teaching experience in undergraduate courses under the direct supervision of a faculty member. *Offered fall, spring and summer semester every year.*

MATH 7005 Graduate Student Seminar (3 hrs.)

An advanced supervised experience in an applied setting. This course may not be used to satisfy a student's approved program of study. *Offered fall, spring, and summer semester every year.*

PBIO 7360 Teaching Internship in Biological Sciences (1-2 hrs.)

Classroom teaching experience in undergraduate courses under the direct supervision of a faculty member. Not open to students with credit in BTNY 7360. *Offered fall, spring, and summer semester every year.*

PBIO 7510 Special Teaching Projects in Plant Biology (1-3 hrs.) Prerequisite: GRSC 7770

Graduate student initiated special projects in teaching methods in plant biology and biology. Assessment will involve regular meetings between the graduate student and supervisor(s). Supervisors will measure progress according to a preliminary plan of study/research, plus regular reports from the student. *Offered fall, spring and summer semester every year.*

PBIO (BIOL) 8010 Seminar in Teaching Biology (1 hr.)

Designed for graduate students and post-docs interested in learning how to teach biology effectively in their own courses rather than as teaching assistants. *Offered spring semester every year.*

PHIL 7010 Teaching Philosophy (1 hr.)

Materials, techniques, and objectives for teaching undergraduate courses in philosophy. Particular attention to presenting lectures, leading discussions, constructing examinations, and instructional evaluations. *Offered fall semester every year.*

RELI 7771 Teaching Religious Studies (3 hrs.) Prerequisite: RELI 7770

Materials, techniques, and objectives for teaching introductory undergraduate courses in religious studies. Particular attention given to presenting lectures, leading discussions, constructing examinations, incorporating instructional technology, and dealing with issues of classroom management. *Offered spring semester every year.*

SOWK 8227 Social Work Education (3 hrs.)

Overview of social work education, including the structure of the educational continuum, foundation and concentration courses, accreditation standards and issues. Preparation for effective teaching within social work degree programs, including syllabi development, assessment of student learning, instructional methods, grading and ethical issues. *Offered every year.*

SPAN (LING) 7750 Teaching College Spanish (3 hrs.)

Foreign language teaching and learning applied to Spanish. This course provides an introduction to both theory and practice in second language teaching methodology, with an overview of communicative language instruction in Spanish. Points of discussion include: theories of second language acquisition, teaching and strategies to teach listening, speaking, reading, writing, and culture in context, activities and procedures of classroom instruction, and issues in the professionalization of Spanish teachers. Given in Spanish. *Offered every year.*

WMST 7770 ProSeminar on Teaching in Women's Studies (3 hrs.)

Using materials, techniques, and objectives for teaching undergraduate courses in women's studies, this course focuses on feminist pedagogies and information about creating lectures, leading discussions, sparking critical thought, and assessing student learning. It examines how educational systems and institutions have regarded women historically and contemporarily as well as the ideas and issues that comprise contemporary feminist thinking. Additionally, it looks at the influence of patriarchy on Western society and in particular the educational lives of women. *Offered fall semester every year.*

Student Learning/Assessment of the Learning Environment

LLOD 7020 (LLOD 7020E) Adult Learning and Instruction (3 hrs.)

Learning theories, models, and principles and their application to the instructional process with adults. This course provides an immersion in adult learning and instruction including social and psychological aspects of adult learning, participation and motivation, contextual factors, and recent theoretical perspectives. *Offered every year.*

LLOD 7030 (LLOD 7030E) Program Development and Adult Education (3 hrs.)

Guided study and practice in developing educational programs for adults in colleges, public schools, and other institutions. Includes identifying needs, establishing objectives, and critically designing and evaluating programs in adult education. *Offered every year.*

LLOD 8090 (LLOD 8090) Adult Development and Instruction (3 hrs.)

Adult developmental psychology, including the nature of adult development; issues and trends in the field; theories of adult growth and development; changes in young, middle and older adulthood; and implications for instruction and learning of adults. *Offered every year.*

LLOD 8180 Feminist Pedagogy (3 hrs.)

An examination of the major feminist theories discussed in contemporary literature in relation to educational structures and processes. Includes feminist analyses of education, theories of feminist pedagogy, impact of positionality on teaching and learning, and women's learning and development. *Offered spring semester of every odd-numbered year.*

ECHD 8310 Social Justice Assessment and Program Evaluation in P-16 Settings (3 hrs.)

An overview of educational evaluation, practices, and methods related to social justice issues in P-16 settings. Student will explore assessment of the ethical and legal considerations when engaging in social justice assessment and program evaluation. Students will design a social justice assessment and evaluation report. *Offered spring semester every year.*

EDHI 8600 Assessment in Higher Education (3 hrs.)

Methods and techniques used in assessing educational outcomes in colleges and universities. Analysis and interpretation of problems, issues, and concerns involved in public demands for assessment and accountability. *Offered every year.*

EDIT 6170 (EDIT 6170E) Introduction to Instructional Design (3 hrs.)

This course introduces systematic procedures for designing, developing, evaluating, and revising instruction to meet identified goals and objectives, with an emphasis on the development of materials-centered instruction as opposed to teacher-mediated instruction. *Offered every year.*

EDIT 6180 (EDIT 6180E) Instructional Development (3 hrs.)

Prerequisite: EDIT 4170/6170

Developing instructional materials for a defined context applying a learner-centered, systematic design philosophy. Working within a team environment while applying contemporary learning theories. Engaging in situational assessment, learner analysis, performance specification, test construction, strategies selection, materials design, and evaluation. *Offered every year.*

EDIT 7350 (EDIT 7350E) Evaluation and Analytics in Instructional Design (3hrs.)

Prerequisite: EDIT 4170/6170 or EDIT 4170E/6170E

Planning, conducting, analyzing, and reporting systematic evaluations of instructional designs and environments.

EDIT 6600 (EDIT 6600E) Diversity, Technology, and Learning (3 hrs.)

Investigation of current issues at the intersection(s) of cultural diversity, technology, and learning. Though designed especially for students who are or plan to be educators, this course is appropriate for students in all majors who are interested in such issues.

EDIT 8400 (EDIT 8400E) Games and Learning (3 hrs.)

Combining hands-on experience with relevant research and theory, this course examines how games of all kinds, both existing and new, can be used to foster learning in school and out.

EDIT 9990 Motivation and Emotion Research Seminar (3 hrs.)

This course is designed to review (a) theories and research on motivation and academic emotions and (b) implications of such for instruction. Students will consider issues related to the design and research of technologies that deliberately influence learners' motivation and emotion. Research and development on affective computing will also be reviewed as the basis for research aimed at improving academic motivation and emotions. *Contact department for more information and availability. Topics vary by semester; all topics are not applicable to the certificate.*

EPSY 6800 (ESPY 6800E) Foundations of Cognition for Education (3 hrs.)

Cognitive psychology as applied to education. Cognitive theories, models, and processes are applied to the teaching and learning of school skills and content areas. Processes such as attention, critical thinking, concept formation, language, memory, and problem solving are examined. Cognitive psychology principles are used to examine and refine instructional methods. *Offered every year.*

EPSY 8180 Psychology of Learning and Instruction (3 hrs.)

Classic and current cognitive, motivational, and developmental psychology concepts are applied to participants' areas of specialization as well as learning in schools and other educational settings. It includes in-depth presentations, demonstrations, and lively discussions of the role that psychology plays in learning and instruction. The focus is on the psychological theories and research studies that are reforming practice in participants' areas of specialization. *Offered every year.*

GRSC 7800 College Teaching and Student Learning (3 hrs.) Prerequisite: GRSC 7770

This interdisciplinary course focuses on how undergraduates learn. Participants will learn a variety of factors that influence teaching and learning in an attempt to discover and define what it means to be an effective college teacher, and will also discuss theory, techniques, and strategies for helping undergraduates become active learners. *Offered spring semester every year.*

GRSC 7870S Service-Learning Course Design (3 hrs.) Prerequisite: GRSC 7770

This interdisciplinary course gives graduate students a foundation in theory and practice of integrating academic service-learning into course design and instruction. Students will learn best practices for service-learning course design, working with community partners, assessment, reflection, and logistics, and will take part in a service-learning activity. This course may also be helpful for graduate students interested in preparing a Community Engagement Portfolio. *Offered spring semester every year.*

GRSC 7880S Community-Engaged Research Methods (3 hrs.)

Course includes a service-learning project during the semester that either employs skills or knowledge learned in the course or teaches new skills or knowledge related to course objectives. Students will be involved in the planning and implementation of the project(s) and may spend time outside of the classroom. Students will be engaged in the service-learning component for approximately 25-50% of overall instructional time. *Offered spring semester every year.*

WFED (EDIT) 8040 Theories of Situated Learning and Implications for Teaching (3 hrs.)

Prerequisite: (EADU 7020 and WFED 7070) or EPSY 6800 or EPSY 6010 or EPSY 6060

Analysis, translation, extrapolation, and synthesis of theories of situated learning. Focus on extracting elements of theory that guides the development of contextualized programs of instruction. Application of theory to contextualized instructional practice. *Offered fall semester every year.*

WIPP 7001 Pedagogy of Writing in the Disciplines (1-3 hrs.)

Theory and practice of teaching writing in the disciplines. This course surveys the most recent research in student writing processes and the best pedagogical practices for helping students improve their writing, understand course content, and become familiar with disciplinary conventions of writing in Biology.

Offered fall semester every year.

Technology to Support Teaching and Learning

EDHI 9040 Using Technology in College Classroom (3 hrs.) Prerequisite: GRSC 7770 or EDHI 9030

This course examines instructional technology in the college classroom, on campus, and online. Its purpose is to encourage critical reflection on the use of instructional technologies across fields and to provide opportunities to develop skills in employing technology in the classroom. *Offered spring semester every year.*

EDIT 6150 (EDIT 6150) Introduction to Digital Learning (3 hrs.)

Introduction to ideas, concepts, and strategies for using digital technologies to enhance and support learning and performance in a variety of contexts. The course focuses on models for integration, specific applications, and how they can be used in classroom and other learning contexts. *Offered every year.*

EDIT 6100 (EDIT 6100E) Introduction to Instructional Technology (3 hrs.)

This course focuses on the field of instructional technology, situating the field within the context of its historical perspective, current practices, and future directions. Its purpose is to examine, critique, and discover the context of the field of Instructional Technology, its historical perspectives, current practices, and future directions. *Offered every year.*

EDIT 6200 (EDIT 6200E) Designing Interactive Learning Environments (4 hrs.)

Prerequisite: (EDIT 4170/6170 or EDIT 4170E/6170E) and (EDIT 6190 or EDIT 6190E)
Instructional design, learning theory, project management, and evaluation for designing interactive learning environments for multiple contexts. Students work with a client to produce interactive multimedia, electronic performance support systems, internet resources, and/or other evolving forms of technology- enhanced learning environments. *Offered every year.*

EDIT 6210 (EDIT 6210E) Team-Based Design of Interactive Learning Environments (3 hrs.) Prerequisite: EDIT 6200 or EDIT 6200E

Students and faculty work in teams using contemporary instructional design theories and tools to produce interactive environments for learning, information retrieval, and performance support, including hypermedia, microworlds, simulations, games, virtual and augmented learning environments, and/or other types of interactive environments. *Offered every year.*

EDIT 6400 (EDIT 6400E) Emerging Approaches in Teaching, Learning and Technology (3 hrs.)

Teaching, learning, and performing, and the ways technological environments can be designed to support these approaches. Describes the theoretical and research foundations of these approaches, and demonstrates varied uses of technology. *Offered every year.*

EDIT 7520 (EDIT 7520E) Online Teaching and Learning (3 hrs.)

An introduction to the world of teaching and learning online, including discussion of instructional strategies and current innovations and issues. From choosing and setting up course elements in a Learning Management System through the actual delivery and interactions of an online class. *Offered every year.*

ENED 8020 Current Issues as a Lens for the Integration of Engineering Education Research and Teaching Practice (3hrs.)

A theoretically founded understanding of current trends in engineering education research to serve the following dual purpose: first, to introduce engineering education research graduate students to the latest developments in the field and, second, to integrate this research perspective into the teaching practice of future engineering educators. *Offered fall semester every even-numbered year.*

GRMN 7600 Teaching with Technology (3 hrs.) Prerequisite: GRMN 7500 or LING 7500
Professional development in language pedagogy with a focus on enhancing teaching through technology. Assessment of how technologies can enrich student learning and be effectively integrated into syllabi and curricula. *Contact department for more information and availability.*

Professional Development for the Academy

LLED 8600 Research on Second Language Acquisition (3 hrs.)

This course presents research and theories on the acquisition of additional languages in classroom settings. Major theoretical paradigms informing research on second language acquisition and underlying assumptions about learning and language will be discussed. Common research methods for analyzing classroom second language data as well as current findings and trends will also be reviewed. Not open to students with credit in ELAN 8600. *Offered every year.*

LLOD 8020 (LLOD 8020E) Adult Education in Social Context (3 hrs.)

The social context of adult education, including race, class, and gender analyses, and the role of adult education in society. Relevant historical, sociological, political, and economic factors that influence adult education theory and practice will be explored. *Offered every year.*

LLOD 8050 (LLOD 8050E) Multicultural Issues in Adult Education (3 hrs.)

Cultural (racial, ethnic, linguistic) diversity in the adult educational context. Topics include cultural self-awareness, demographic changes and projections, problems/issues in inter-cultural educational settings, theoretical perspectives of multicultural adult education, practical problems and related strategies in handling diversity in adult education settings. *Offered every year.*

LLOD 9020 (LLOD 9020E) Adult Learning Theory and Research (3 hrs.)

Research and theory in adult learning, including social and psychological aspects of adult learning, participation and motivation, self-directed learning, transformative learning, and recent theoretical perspectives. *Offered every year.*

ECHD 9320 Teaching and Diversity (3 hrs.)

Examination of ways in which teaching and learning intersect with diversity. Three specific areas will be examined: teaching diversity course content, understanding the experiences of diverse teachers and faculty, and teaching diverse students. *Offered every year.*

EDHI 9010 Academic Programs in Higher Education (3 hrs.)

General education and specialization in undergraduate education. Curricular trends, contemporary practices, persistent challenges, and external influences in the development of courses and programs in higher education. *Offered every year.*

EDHI 9050 Organization and Governance in Higher Education (3 hrs.)

Organization and governance in higher education, with special attention to diversity of institutional types, relevant organizational theory, and the nature of change in colleges and universities. *Offered every year.*

EDHI 9100 The American Professoriate (3 hrs.)

Social organization, social stratification, and change of the American professoriate by way of classical and contemporary readings. The transition of new faculty members from graduate school to the initial academic appointment. *Offered every year.*

EDIT 8310 (EDIT 8310E) Technology for Education (3 hrs.)

Theory, research, and practice around technology for learning in educational settings, including history and current trends in the field. Research and evaluation strategies associated with technology use for education.

EDIT 9990 Global Perspectives with Interactive Communications Technology (3 hrs.)

This course examines the use of Interactive Communication Technology (ICT) for bringing the world to the classroom with a specific look at Global Education and how it's approached from traditional methods to the study abroad experience. *Contact department for more information and availability. Topics vary by semester; all topics are not applicable to the certificate.*

EMAT 8010 Advanced Study of Mathematics Curriculum (3 hrs.) Prerequisites: EMAT 7050 and EMAT 7080

This course discusses theoretical bases for mathematics curriculum including analyses of "curriculum" as defined in the context of teaching, student learning, and math education, the role of math educators and research in developing curriculum, the impact of reform efforts in school mathematics over the past century, and the influences impacting curriculum design, content taught, and the approach to instruction in both the U.S. and internationally. *Not offered on a regular basis.*

ENED 8040 Theories of Learning and Human Development in Contemporary Engineering Education Research (3 hrs.)

Introduces students to a range of theoretical perspectives that inform or underpin current curricular or teaching practices in engineering. This will serve future engineering education practitioners as a theoretical perspective to frame their own practice and future engineering education researchers as theoretical frameworks to inform systematic educational studies. *Offered spring semester every even-numbered year.*

GRSC 7900 Designing Courses for Significant Learning (3 hrs.) Prerequisite: GRSC 7770

The purpose of this interdisciplinary course is to give graduate students a foundation in course design, grounded in strong pedagogical theory. Students will design or redesign a course in its entirety, beginning with their goals for their students and working backward through assessment to teaching and learning activities. *Offered fall semester every year.*

GRSC 7950 Developing an Academic Teaching Portfolio (1 hr.)

Prerequisite: GRSC 7770 and permission of department

This interdisciplinary course will focus on writing a teaching philosophy statement as the core component for creating a teaching portfolio based on the guidelines for the Graduate School's Teaching Portfolio program. *Offered every year.*

GRSC 7970S Approaches to Community Engagement (3hrs.)

Theory, methodology, and ethics of university-community engagement. The professional development of graduate students is enhanced through training in engaged teaching, research, and service. *Offered fall semester every year.*

EDHI 8990 Seminar in Higher Education (1-3 hrs.)

Issues in teaching and learning in higher education. Topics are tailored to meet the needs of doctoral-level students preparing for academic posts across a variety of disciplines and instructional levels. Integrating technology in the classroom, instructional strategies, and assessing students and courses for improvement. *Offered every year.*

EDHI 9400 Comparative Higher Education (3hrs.)

Higher education systems and institutions outside North America. *Offered every year.*