

Courses that are boxed are offered to students with non-degree status. Some courses may have prerequisites, require instructor's approval, are available to non-degree students *only* in the summer or are limited in size due to the availability of computers.

The College of Education has one academic department, the Department of Education and Human Services (EHS) that is comprised of six academic programs:

- Comparative and International Education,
- Counseling Psychology,
- Educational Leadership,
- School Psychology,
- Special Education, and
- Teaching, Learning, and Technology

Department of Education and Human Services Faculty

Professors. Gary M. Sasso, Ph.D. (Univ. of Kansas), *dean*; Arpana G. Inman, Ph.D. (Temple), *chairperson*; Lee Kern, Ph.D. (Univ. of South Florida); Linda M. Bambara, Ed.D. (Vanderbilt); Alec M. Bodzin, Ph.D. (North Carolina State), *associate chairperson*; Christine L. Cole, Ph.D. (Wisconsin-Madison); George J. DuPaul, Ph.D. (Rhode Island); Arnold R. Spokane, Ph.D. (Ohio State); George P. White, Ed.D. (Vanderbilt).

Associate Professors. Floyd D. Beachum, Ed.D. (Bowling Green State) *endowed Bennett professor of urban school leadership*; Grace I.L. Caskie, Ph.D. (Univ. of North Carolina); H. Lynn Columba, Ed.D. (Louisville); Thomas C. Hammond, Ph.D. (Virginia), *associate dean*; Robin L. Hojnoski, Ph.D. (Univ. of Massachusetts); Christopher T. H. Liang, Ph.D. (Univ. of Maryland); Patricia H. Manz, Ph.D. (Univ. of Pennsylvania); Jill Sperandio, Ph.D. (Univ. of Chicago); Alexander W. Wiseman, Ph.D. (Pennsylvania State); Brenna K. Wood, Ph.D. (Univ. of Arizona); Susan S. Woodhouse, Ph.D. (Univ. of Maryland).

Assistant Professors. Minyi Shih Dennis, Ph.D. (Univ. of Texas at Austin); Bridget V. Dever, Ph.D. (Univ. of Michigan); Craig Hochbein, Ph.D. (Univ. of Virginia); Nicole L. Johnson, Ph.D. (Univ. of Akron); Sara E.N. Kangas, Ph.D. (Temple); Peggy A. Kong, Ed.D. (Harvard); Julia Lechuga, Ph.D. (Univ. of Texas at El Paso); L. Brook Sawyer, Ph.D. (Univ. of Virginia).

Professors of Practice. Lisa Damaschke-Deitrick, Ph.D. (Tübingen); Louise E. Donohue, Ed.D. (Lehigh); Jon Drescher, M.S. (Brooklyn College); Sothy Eng, Ph.D. (Texas Tech); Jerome A. Farrell, Ph.D. (Univ. of Albany); Qiong Fu, Ph.D. (Univ of Illinois); (Scott R. Garrigan, Ed.D. (Lehigh); Christine G. Novak, Ph.D. (Univ. of Iowa).

Emeriti. Raymond Bell, Ed.D. (Lehigh); Warren R. Heydenberk, Ph.D (Univ. of Northern Colorado); Joseph P. Kender, Ed.D. (Univ. of Pennsylvania); Robert L. Leight, Ed.D. (Lehigh); J. Gary Lutz, Ed.D. (Lehigh); Alden J. Moe, Ph.D. (Univ. of Minnesota); Roland K. Yoshida, Ph.D. (Univ. of Southern California); Perry A. Zirkel, J.D., Ph.D. (Connecticut), LL.M. (Yale).

Overview

Although the EHS department does not offer an undergraduate major, the Teaching, Learning, and Technology program offers an Education minor, as well as a five-year program leading to a master's degree and certification in a teaching field. Across the six academic programs, the department offers a variety of master's degrees (M.Ed., M.S., and M.A.) and doctoral degrees (Ph.D. and Ed.D.), as well as an Educational Specialist degree (Ed.S.). In addition, in cooperation with the College of Business and Economics, the department offers a combination MBA / M.Ed. degree. Further, programs in the college offer coursework-only study toward Pennsylvania state certification, without having to earn a degree. Lastly, there are numerous non-degree programs of study in the college leading to a Lehigh University post-bachelor's certificate.

Programs of study vary in the number of credits required for completion. Please consult the appropriate academic program to learn more about those requirements.

Agencies accrediting our programs include the Pennsylvania Department of Education, the American Psychological Association, the National Association of School Psychologists, and the Masters in Psychology and Counseling Accreditation Council.

Graduates of our programs may work in schools or other educational settings, in health settings and agencies, in government agencies and non-governmental organizations focused on education, in industry, in private practice, or as consultants. While many graduates work in the United States, others work in countries around the world. For more information on what our graduates do after graduation, please consult the appropriate academic program.

The College of Education subscribes to a research-to-practice model, and all academic programs in the department train their graduates in research-based and evidence-based practices and policies that seek to create inclusive environments in which all individuals are able to work to their potential and social justice is well served.

The department is home to projects funded by the National Science Foundation, the National Institutes of Health, and the Department of Education.

For additional information about the programs, please visit: coe.lehigh.edu/insidecoe/ehs

Degrees Offered

Master of Education (M.Ed.) This degree is offered in the following professional specializations: elementary education, secondary education, special education, educational leadership, counseling and human services, globalization and educational change, international counseling, school counseling, and teaching and learning. Degree requirements vary from program to program.

Master of Arts (M.A.) The master of arts is available in either teacher education (secondary education or the teaching and learning degree programs) or comparative and international education. The teacher education M.A. focuses on enhancing both pedagogical skill and subject matter expertise of teachers. The comparative and international education M.A. examines educational policy and theory on an international level, preparing its graduates to work in educational research and policy organizations, government offices, ministries of education, and international development organizations. The teacher education student pursuing an M.A. must take graduate work in education plus 12 credits of graduate work in an academic field related to the area of teacher certification (typically, English, mathematics, political science, sociology, and physical and natural sciences). The comparative and international education student pursuing an M.A. must take graduate work in education plus 12 credits in one of four specific academic disciplines (sociology and anthropology, political science and international relations, economics, or history).

Master of Science (M.S.) The master of science degree is awarded in instructional technology or teaching, learning and technology. The M.S. in instructional technology focuses on the planning and use of instructional technology in preK-12 and post secondary settings and non-formal learning environments (such as museums and science centers). The program is targeted toward individuals from varied backgrounds who wish to help educators or learn themselves to design, develop, and incorporate technology applications more effectively in diverse educational settings including preK-12, post secondary education, and informal learning environments. This is an appropriate degree for those who teach in the classroom and online, technology specialists, informal educators, and others interested in effectively using information and communications technologies to enhance instruction. The program is designed to help develop skills that can be used to create new curriculum and learning activities to meet the demands of a changing technological society and the needs of new generations of students. As such, graduates may be designing online courses, enhance existing curriculum with emerging technologies, or may work as technology specialists, assisting with the integration of technology in academic and informal learning environments. The Instructional Technology graduate program is intended for both current professionals in the education field as well as those who are seeking an advanced degree to upgrade their skills and knowledge base related to technology. The master of science degree in TLT is available only to students previously admitted to the TLT Ph.D. program and is a “fallback” for those who have completed the core coursework but are unable to progress through the culminating research projects.

Master in Business Administration/Master of Education (MBA/M.Ed.) The MBA and master's of education joint degree program offers students the opportunity to acquire a solid foundation in both business and education. Designed to increase the administrative skill required in today's educational systems, the MBA/M.Ed. provides a framework in which excellent education and sound business practices can flourish. The MBA/M.Ed. will provide an additional option for students for business and students of educational leadership. The program should enhance the student's marketability in private and public sector education while providing students with an understanding of the cultures of both business and education.

Educational Specialist (Ed.S.) Specialized postmaster's degree programs for practitioners are available in school psychology.

Certification Programs The college offers programs of study leading to eligibility for Pennsylvania state certifications in various professional specialties including elementary and secondary teacher education, including certification in special education; supervisor of curriculum and instruction; superintendent; and K-12 principal. Certification programs vary in the number of credits required.

IMPORTANT NOTE: The Pennsylvania Department of Education (PDE) has divided elementary (K-6) certification into two separate certifications: Early Elementary (Pre-kindergarten through 4th grade) and Upper Elementary/Middle (4th grade through 8th grade). Secondary certification remains grades 7 through 12. Under these new regulations, effective January 1, 2011, there will no longer be a separate initial certification for special education; special education teachers must now also acquire one of the two elementary certifications or a secondary certification. Lehigh has decided to offer only the PreK-4th grade certification at the elementary level, although we will continue to offer secondary and special education certification. By PDE regulation, students already enrolled in our current K-6, secondary or special education initial certification-preparation programs must complete their programs of study by August 31, 2013. Students who are unable to complete their initial teacher certification eligibility programs by that date will need to complete one of our new PDE-approved teacher certification eligibility programs (PreK-4 or 7-12).

Post-Baccalaureate Certificates The college also offers post-baccalaureate certificate programs in international counseling, international development in education, project management (jointly offered through the College of Business and Economics and the College of Education), special education, teacher leadership, teaching English as a second language, and technology use in the schools. Post-baccalaureate certificate programs differ from the above-described certifications issued by agencies external to Lehigh (such as the Pennsylvania Department of Education). Lehigh's post-baccalaureate certificate programs are, instead, focused concentrations of 12 to 15 credits that students complete to enhance their professional credentials. Where appropriate, post-baccalaureate certificate programs may be included as part of the coursework of a degree program. www.lehigh.edu/education/academics/certificates.html

Doctor of Philosophy (Ph.D.) The College of Education also offers the Ph.D. degree to students enrolled in the fields of comparative and international education, counseling psychology, school psychology, special education, and teaching, learning, and technology. No language examinations are required.

Doctor of Education (Ed.D.) The doctor of education degree program provides specialized study in educational leadership. Successful professional experience is required for admission to candidacy.

Non-Degree Options The non-degree options are designed for those individuals interested in taking a few courses in the College but not interested in pursuing a graduate degree. For information on the non-degree program, contact Donna Johnson at 610-758-3231 or email education@lehigh.edu. There are two non-degree options as well: (1) Regular non-degree and (2) Non-degree for external certification.

Regular non-degree admission is for students who wish to take up to 12 credits of graduate coursework at Lehigh University without seeking a degree. Any transcript or other record from the University will clearly indicate the student status as non-degree. Non-degree students are not permitted to audit courses. University admissions criteria for non-degree graduate students are (a) a bachelor's degree from an accredited institution with an overall grade point average of at least 2.75 on a four-point scale (Applicants with undergraduate GPAs slightly below 3.0 may be admitted with approval from the department of Education and Human Services) or (b) to have achieved a GPA of 3.0 or higher on a four-point scale for a minimum of 12 graduate credits at another accredited institution. If English is not your first language, you must submit TOEFL scores

Non-degree for external certification students are admitted to pursue coursework for the purpose of obtaining certification through an external accrediting agency. Applicants are expected to have an undergraduate GPA of 3.0 or higher on a four-point scale or to have achieved a GPA of 3.0 or higher on a four-point scale for a minimum of 12 graduate credits at another accredited institution. Applicants are assigned certification advisors on admissions and must work with the advisor to assure that they complete all requirements for certification satisfactorily. Students complete the coursework and any other required field experiences for the appropriate certification, with the number of credits and field experiences being dictated by the external accrediting agency. Given this external control of credit requirements, the number of credits will vary and will typically exceed the 12-credit limit for regular non-degree students. Certification involves qualitative components as well as credits; a non-degree student seeking such certification must meet the quality standards of the certification program, as well as completing the necessary coursework and field experiences.

Changing from Non-Degree to Degree Status

Non-degree students of either type may seek admission to a degree program. Non-degree students who seek admission to a degree program must meet all regular admissions criteria, complete all regular procedures, and present all documents normally required of degree-seeking applicants to that program. Courses taken by a non-degree student who later enters a degree program will count towards the completion of the program to the extent that those courses fall within the normal requirements of the program and to the extent that the student's performance in the course(s) is acceptable for degree program purposes. Any course that is counted towards the completion of a degree must be completed within the established time limits for that degree, whether taken initially as a degree or non-degree course.

While general courses are listed separately, the courses pertinent to each program are listed in the following text. Courses that are boxed are those that non-degree students can take.

Comparative and International Education

CIE 400. Comparative and International Education (3)

The goal of this course is to introduce students to the origins and development of the field of international and comparative education and to explore how both scholars and educational policymakers have engaged some of the debates that characterize policy and research in education around the world. Special attention is devoted to similarities and differences in educational policy and practice between advanced and developing capitalist, socialist and “transitional” societies. At the end of this course, students should be able to think about their school or educational system within a global context, and have some idea how to make meaningful comparisons.

***CIE 401. Globalization & Contextualization (3)**

The goal of the course is clarify what globalization is and to consider the impact of globalizing ideas, structures, and cultures on education, and how educators and other stakeholders respond given their school’s or system’s unique global context. Through case studies and discussions with real-world school leaders, students explore ways that policies are “borrowed” and both educational cultures and structures are “institutionalized.”

**Open to non-degree students only with instructor permission.*

***CIE 402. Development and Evaluation of International Educational Projects (3)**

This course is an introductory exercise for students new to educational research, program evaluation and related areas (e.g., quality improvement, enhancing organizational performance, methods of social change, management training). Students will develop and conduct a professional on-site project evaluation of existing national and international projects, including initiatives undertaken by different international organizations (e.g., UNICEF, UNESCO, USAID), educational institutions, and schools (both public and private). Students will be accompanied and supervised throughout all stages of the research and evaluation process. No previous experience with evaluation research and empirical or qualitative data analysis is required.

**Open to non-degree students only with instructor permission.*

***CIE 403. Globalization and Curriculum Implications (3)**

This course investigates the impact of globalization on curriculum. In particular, it discusses how curriculum has historically been utilized in nation building; how tensions between the global and the local are inherent in curriculum; and how curriculum is a site of construction of national as well as global/cosmopolitan identities. Global citizenship is one of the major curricula themes spanning this dynamic intersection between the global and the local. This course will present several theoretical perspectives on this phenomenon and compare curricula across nations to understand how globalizing the curricula differs according to culture and language.

**Open to non-degree students only with instructor permission.*

***CIE 404. Issues and Institutions in International Educational Development (3)**

Explores theoretical approaches to understanding the role of education in international development by introducing students to institutions involved in international educational development in diverse global settings (e.g., United Nations, World Bank, NGOs, and state agencies). Discussions are framed by current debates in the fields of international and comparative education.

**Open to non-degree students only with instructor permission.*

***CIE 405. Experiencing the United Nations: Gender and Education in International Development (3)**

Building on the Lehigh University/United Nations partnership initiative, this course provides a structured practical experience for students to learn about the dynamics of UN and civil society relationships, focusing on the issues of gender and education in international development. Class activities include trips to the UN to attend NGO briefings and other events. Students develop experiences and skills in international development such as policy blogging, brief writing, and education sector analysis.

**Open to non-degree students only with instructor permission.*

***CIE 406. International Education Policy (3)**

Focuses on how policy is created, implemented, and evaluated in schools and educational systems from a comparative and international perspective. Provides a framework for a comprehensive analysis of the education “sector” in order to inform regional, national, or multinational educational policymaking. Students will apply this understanding to an analysis of education policy in a specific region or district (e.g., Pennsylvania) from a global policymaking perspective.

**Open to non-degree students only with instructor permission.*

***CIE 407. Grant Writing and Fund Raising in International Education Development (3)**

Addresses NGO issues and needs and will develop leadership, problem solving, and practical grant writing skills focused on international education development. The course is designed for individuals working in international NGOs and schools and is designed to work in conjunction with a local or international NGO. Teams of students will develop a project proposal related to the agency's primary service mission, articulate a fund-raising strategy, and raise capital on the basis of proposals developed in class.

**Open to non-degree students only with instructor permission.*

CIE 408. Thesis Writing (3)

Capstone course requiring intensive research and writing with the supervision of Comparative & International Education program faculty. The result is a master's-level thesis reporting the investigation, analysis and results related to a relevant topic in the field of comparative and international education.

CIE 410. Research in Comparative and International Education I (3)**CIE 411. Research in Comparative and International Education II (3)**

(Two-semester-course taught in consecutive semesters.)

This course provides an overview of research methodologies used in comparative and international education research. The course will introduce doctoral students to both qualitative and quantitative research methodologies, including participant observation, interviews, ethnography, narrative analysis, survey data collection, and large-scale, cross-national data analysis. The relationship between each methodology and the field of comparative and international education will be discussed using both research and policy examples from a variety of developed and developing country contexts.

CIE 412. Sociocultural Issues in Comparative and International Education (3)

This course examines social and cultural contexts of teaching and learning in developed and developing country contexts. The course combines theoretical and empirical readings to highlight the dynamic factors that shape the lives of learners inside and outside the classroom. The course is divided into two modules. The first module presents theoretical readings on the social and cultural context of schooling. The second module draws from empirical studies of social and cultural issues in developed and developing country contexts.

CIE 414. Globalization and Post-Colonialism in Education (3)

This course focuses on some of the central discussions in the field of comparative and international education and address the specific questions about the meaning of education and post-colonialism. Readings examine specific instances of the intersection of European colonialism, global capitalism, and international development in a variety of geographic settings, including Eastern/Central Europe, Africa, and Asia. Assignments focus on post-colonialism in specific countries to develop a historical perspective on the topic and to provide the basis for international comparison.

CIE 450. Doctoral Seminar in Comparative and International Education I (3)**CIE 451. Doctoral Seminar in Comparative and International Education II (3)**

[Two-semester sequence]

This seminar is a year-long course divided into several modules, each taught by different faculty within the comparative and international education program. The goal is to provide new doctoral students with a strong foundation in comparative education theory and initiate them into the professional and academic field. Students will study a variety of established and evolving theoretical frameworks and explore major research areas in comparative and international education and its sub-disciplines, with an emphasis on Lehigh-specific expertise in the field.

CIE 460. Advanced Research Practicum in Comparative and International Education (3)

The goal of this course is to provide an opportunity for doctoral students to learn advanced techniques of comparative education research or measurement applied to international and/or cross-national comparative study of education phenomena. Advanced Research Practicum will be closely supervised by a CIE faculty member and will involve elements of collaborative academic research and professional mentoring.

CIE 470. Doctoral Proposal Seminar in Comparative and International Education (3)

This course guides students through the initial stages of the dissertation proposal writing. Prerequisite: Official standing as a doctoral student in comparative and international education.

CIE 471. Globalization and Education Equity (3)

This course investigates how globalization affects education equity by examining group differences that result from race, ethnicity, culture, language, class, and gender. It critically analyzes existing systems of power and privilege that maintain the social constructions of cultural differences in the United States and globally. Through readings and class discussions, students are empowered to clarify and ground their own beliefs about education equity, while articulating a vision for equitable educational development as thoughtful, critical, and humane education researchers and practitioners.

CIE 482. Practicum in University Teaching: Comparative and International Education (1-4)

Mentored and guided co-teaching focused on the design, organization, pedagogy and assessment of university courses in Comparative and International Education. Students in this course will work with a faculty member to apply best practices in university teaching with feedback while co-teaching students in a course in the College of Education. Students taking the course must meet the college standards for participation and be approved by the program director and department chair. May be repeated for credit.

CIE 491. Special Topics in Comparative and International Education: <Subtitle> (3)

Intensive study and discussion of a specialized area in comparative and international education. Subtitle will vary. *May be repeated for credit as subtitle varies.*

Counseling Psychology

CPsy 407 (SchP 407). Crisis Management in the Schools (3)

This course is designed to provide students with knowledge and skills related to crisis preparedness and intervention in the schools. Relevant theories and research literature will be explored as well as practical elements of crisis response that are applicable to all school systems. In addition, intervention strategies and protocols will be examined and discussed.

***CPsy 427 (SchP 427). Assessment and Appraisal in Counseling (3)**

Principles of psychological measurement (e.g., tests construction, technology, validity, reliability, functional utility). Ethical, legal, and cultural issues in the administration and interpretation of psychological tests. Case conceptualization, reporting and presentation.

**Open to non-degree students in spring only.*

CPsy 430. Professional Seminar (3)

Professional, ethical, and legal issues in counseling. Management and delivery of counseling services in a culturally diverse society. Professional development, certification, licensure, and role identification.

CPsy 436. Culture-Centered Career Intervention (3)

Examination of the career development process and interventions for children, adolescents, and adults with a culture-centered perspective. Study of theorists, vocational assessment process, and occupational and psychological information systems.

CPsy 439. Theory and Practice of Group Counseling (3)

Introduction to the process of group counseling and therapy. Selection of group members; group rules; group procedures with children, adolescents and adults; ethical considerations with groups. Study of research on group processes, group therapy, and group leadership. *Prerequisites: permission of the program director required.*

***CPsy 440. Introduction to Family Counseling (3)**

Research and current trends in the practice of family counseling. Overview and analysis of major theoretical approaches of family therapy.

**Open to non-degree students in spring or fall semesters only*

***CPsy 442. Counseling and Therapeutic Approaches (3)**

Theory, research, and technique of counseling within a cultural context. *Prerequisites: admission to CPsy master's program or permission of counseling psychology program director.*

**Open to non-degree students only with permission of program*

CPsy 443. Counseling and Therapeutic Approaches Laboratory (1)

One-credit laboratory will cover counseling skills used in diverse theoretical approaches. *Must take along with CPsy 442.*

CPsy 445. School Counseling – I (4)

Overview of the history, philosophy and current trends in school counseling. Emphasis is placed on (a) professional, ethical, and legal issues in counseling; (b) management and delivery of counseling services in a school setting and culturally diverse society; (c) professional development, certification and role identification; (d) collaboration and consultation with teachers, parents, and administrators. Students will be involved in a pre-practicum observation of school counselors in a pre-K-12 setting. *Note: current clearances are needed for non-degree students as well.*

***CPsy 448. School Counseling – II (3)**

Emphasis on the social and cultural context of school counseling. Includes ethical, legal, and cultural issues in the administration and interpretation of psychological tests used in pre-K-12 settings. Focus on a special topic such as school violence or substance abuse prevention, school and community interaction, and the social and cultural context of school counseling, etc. The course will also include observations in schools. *Prerequisite: CPsy 445.*

**Open to non-degree students in summer only. Note: current clearances are needed for non-degree students as well.*

CPsy 449. School Counseling – III (4)

Theory and methods of consultation; development and implementation of student assistance programs; intra- and inter-agency collaborations. The course will also include observations in schools.

CPsy 451. Helping Skills (3)

Helping Skills is a course designed to provide counselor trainees with didactic and experiential learning opportunities to facilitate and enhance beginning counseling skills. Counselor trainees will begin to develop an understanding of the counselor's role in assisting or inhibiting client change. This course utilizes such techniques as modeling, role-playing, audiotape feedback, as well as other learning modalities. Particular emphasis is given to theoretical frameworks, cultural competency, and self-understanding.

CPsy 452. Counseling Issues and Skills: Facilitating Healthy Adjustment (3)

Course assists counselors in developing proficiency in helping skills and an understanding of the counselor's role in facilitating or inhibiting client change. Focus is on gaining knowledge related to mental health issues for third culture children and adolescents that include (a) cultural adjustment, (b) eating disorders, (c) depression and suicidality, (d) substance abuse, (e) anxiety, (f) family dysfunction, and (g) career development.

CPsy 453. Counseling Issues and Skills: Building Healthy Communities (3)

The objectives of this course are for students to develop proficiency in counseling skills and gaining knowledge related to constructing prevention programs for children and adolescents that include (a) substance abuse, (b) sexually transmitted disease and teen pregnancy, (c) eating disorders, (d) violence prevention, and (e) resiliency and competency promotion programs. Special focus will be paid to understanding the components of an effective crisis management plan.

CPsy 455. Counseling Issues and Skills: Advanced Techniques in Counseling (3)

The objectives of this course are to help students expand knowledge of traditional counseling theories and facilitate the development of basic counseling and assessment skills. Specifically, the course is designed to: (1) Enhance students' understanding of the intersection of characteristics of effective helping, stages of the helping relationship, and the uses of counseling techniques; (2) Expand students' understanding of the difference between foundational skills, commonly used helping skills and techniques that require specialized training; and (3) Provide students with training experiences that expand conceptual understanding of the counseling process from a multicultural perspective (i.e., from initial intake interviews to integrating assessment information to formulating and carrying out intervention plans to termination).

CPsy 460. Foundations of Counseling Psychology (3)

Knowledge in the core foundations of Counseling Psychology, including the history of Counseling Psychology, multicultural Issues, career and vocational counseling, counseling/psychotherapy process and outcome, ethics, prevention and health promotion, social justice and disaster intervention. *Prerequisites: admission to the Ph.D. program in counseling psychology or permission of the counseling psychology program director.*

CPsy 461. Assessment of Adult Intellectual Functioning (3)

Administration and interpretation of individual tests/batteries of adult intelligence and neuropsychological functioning. Consideration of psychological and crosscultural issues in intellectual assessment. Preparation of psychological reports. *Prerequisite: CPsy 427 and permission of the instructor.*

CPsy 462. Assessment of Personality (3)

Consideration of issues and methods of personality assessment, including ethical and legal issues, and crosscultural issues. Practice in the administration of instruments used for personality assessment. Supervised experience and report writing. *Prerequisites: CPsy 427 and admission to the Ph.D. program in counseling psychology.*

***CPsy 466. Current Issues in Counseling and Therapy (1-6)**

Examination of an area of counseling or therapy that is of topical interest to students and faculty. *May be repeated for credit.*
**Open to non-degree students only with permission of program and dependent on the sub-title.*

CPSY 467 Doctoral Seminar in Counseling Psychology: (subtitle) 1-6 Credits

Research and writing-intensive seminar on current issues and topics in professional psychology directed to doctoral students in counseling psychology. Can be repeated under different subtitles. Permission of CP Training Director.

CPsy 470. Independent Study and Research (1-6)

Individual or small group study in the field of counseling. Approved and supervised by the major adviser. *May be repeated for credit.*

CPsy 471 (Educ 471). Diversity and Multicultural Perspectives (3)

Examination of the influence of culture, gender, and disabilities on behavior and attitudes. Historical and current perspectives on race, culture, gender, and minority group issues in education and psychology. Lecture/small group discussion. *Course is restricted to graduate students in the College of Education only.*

***CPsy 472. Human Development Across the Lifespan (3)**

An examination of prevailing theories of human growth and development across the lifespan. Examination of the interactive effect of various age groups upon one another. Particular emphasis on the helping relationships.

**Open to non-degree students only with permission of program.*

CPsy 473 (SchP 473). Advanced Research Methods in Applied Psychology (3)

For doctoral students in applied psychology. Issues and methods of research design, data collection and data analysis. Advanced discussion of quantitative, qualitative and single-case research design. *Admission to the Ph.D. program in counseling psychology or school psychology or permission of the instructor.*

CPsy 476. Supervision and Consultation in Counseling (3)

Examination of supervision and consultation theory, research and practice within a multicultural framework. Observation and supervision of counseling practicum students. Consultation in clinical settings. For candidates for supervisor's certificate or doctorate in counseling. *Prerequisite: CPsy 488 and permission of instructor.*

CPsy 477. Supervision Apprenticeship (1-3)

The Supervision Apprenticeship normally follows completion of the supervision course CPsy 476 and ensues a full academic year of supervision experience working with master's level trainees under the supervision of a faculty member. Doctoral standing and permission of training director required. *Prerequisite: CPsy 488*

CPsy 479 Master's Counseling Practicum (1-3)

Practicum field experience in professional practice settings with accompanying seminar meetings. Minimum of 100 documented hours on site. *Prerequisites: Enrollment in Counseling Master's program or in CPsy doctoral program plus permission of Clinical Coordinator*

CPsy 480. Master's Internship I (3)

Twenty hours of weekly supervised practicum training for advanced graduate students in individual, group, and family counseling and therapy. *May be repeated for credit. Prerequisites: CPsy 442, CPsy 451, CPsy 479 and permission of instructor.*

CPsy 481. Advanced Multicultural Counseling (3)

This seminar covers models and theories of multicultural counseling and intervention. Students should be actively engaging in practice with multicultural clients in a practicum or field site, and these cases will form part of the basis of course discussions. *Prerequisites: CPsy 471, admission to the doctoral program in counseling psychology, and permission of the counseling psychology program director.*

CPsy 482. Practicum in University Teaching: Counseling Psychology (1-4)

Mentored and guided co-teaching focused on the design, organization, pedagogy and assessment of university courses in Counseling Psychology. Students in this course will work with a faculty member to apply best practices in university teaching with feedback while co-teaching students in a course in the College of Education. Students taking the course must meet the college standards for participation and be approved by the program director and department chair. *May be repeated for credit.*

CPsy 483. Master's Internship II (3-6)

Twenty hours of weekly supervised professional practice in a school or agency setting as an extension of CPsy 480, Practicum. On-site supervision, audio and/or video recordings and case presentations required. *Prerequisites: CPsy 480 and permission of the counseling psychology program director.*

***CPsy 484 (SchP 484). History and Systems of Psychology (3)**

This doctoral level course is designed as an overview of the history of psychology in the Western world. The historical approaches to this task will include a historical developmental approach to the origins and changes of ideas over time, the study of great persons and schools of thought, and a look at the Zeitgeist of each. This course will examine the nature of psychology as a whole, and the influence of philosophical worldviews in areas such as epistemology, ontology, teleology, and axiology. Part of this study regards the nature of science, and its power and limitations as applied to the understanding of human beings.

**Open to non-degree students only after consultation with and permission of the instructor.*

CPsy 485. Advanced Psychopathology (3)

This class will cover etiology, assessment, interviewing techniques, establishing a therapeutic alliance, and treatment planning in adult mental disorders. In depth coverage will be given to Axis II disorders. The diagnosis and classification of abnormal behavior using DSM-IV-R medical model will be emphasized. Alternate theories of abnormal psychology will also be discussed.

CPsy 486. Family Counseling Clinic (3-6)

Supervised practicum training for advanced graduate students in family counseling and therapy. Techniques and methods of conducting family counseling and therapy. *Prerequisites: CPsy 480 and CPsy 440.*

CPsy 487. Advanced Doctoral Practicum I (3)

Supervised clinical experience for entry-level doctoral students with emphasis on the development of intake skills, assessment procedures and intervention skills. Audio and video recording, individual and group supervision. *Prerequisite: admission to the doctoral program in counseling psychology and permission of the counseling psychology practicum coordinator.*

CPsy 488. Advanced Doctoral Practicum II (3)

Supervised clinical experience with emphasis on advanced skills in interpretation, case conceptualization from a theoretical perspective, termination and referral, and in the broad array of professional activities normally conducted by a counseling psychologist. Audio and video recording, individual and group supervision. *Prerequisites: CPsy 487 and permission of the counseling psychology practicum coordinator.*

CPsy 489. Advanced Doctoral Practicum III (1)

Supervised field experience in counseling and therapeutic settings for doctoral students with specific populations. In consultation with on-site supervisor, the student will develop an area of focus for this practicum that will include therapy experience, training and additional assessment skills as needed. *Repeatable for a total of 3 credits. Prerequisites: CPsy 488 and permission of the counseling psychology practicum coordinator.*

CPsy 491. Advanced Doctoral Practicum IV (1)

Supervised field experience in counseling and therapeutic settings for doctoral students with specific populations. In consultation with on-site supervisor, the student will develop an area of focus for this practicum that will include therapy experience, training and additional assessment skills as needed. *Repeatable for a total of 3 credits. Prerequisites: CPsy 489 and permission of the counseling psychology practicum coordinator.*

CPsy 492. Advanced Field Placement (1-3)

Students perform counseling in university and community agencies under the supervision of the Ph.D. psychologists at the field placement. Open only to students in counseling psychology. *Course may be repeated for up to 6 credits. Prerequisite: Permission of the counseling psychology practicum coordinator.*

CPsy 498. Counseling Psychology Doctoral Internship (1)

A one year full-time or two year half-time supervised internship in professional psychology. Student functions as regular staff member. Regular contact with academic advisor required in addition to end-of-semester evaluation by the internship site and the student. *Repeatable for a total of 3 credits. Prerequisite: CPsy 491 and permission of the counseling psychology program director.*

Education

Educ 383. Supervised Research in Applied Psychology (1-3)

Provides undergraduate junior and senior psychology majors a formal supervised research experience in applied psychology. Students are assigned for the semester to a research team led by a participating faculty member in the counseling psychology or school psychology programs in the College of Education. *Repeatable up to 6 credits.*

Educ 388. Statistical Computing (3)

Use of one or more major statistical software packages. Principles of data coding, editing, integrity checking, and management. Emphasis on link between personal computers, mainframes, and other software. *Prerequisite: Educ 408 or consent of instructor.*

Educ 402. Developmental Psychology (3)

Survey of theories and research concerning perceptual, cognitive, social, and personality development through infancy and childhood. *Prerequisite: graduate standing or consent of instructor.*

Educ 403. Research (3)

Basic principles of research; techniques of gathering and analyzing data; design of studies in education. Emphasis on critical reviews of research reports representing various methodologies. Research report required.

Educ 405. Qualitative Research Methods (3)

Foundations of qualitative design as research methodology for answering questions in education. Topics include history, philosophy, types, methods, applications, and critical reading of qualitative research reports. Emphasis on developing key researcher skills of gaining entrance, collecting, analyzing and interpreting data, establishing credibility, and writing and publishing results.

Educ 408. Introduction to Statistics (3)

Organization and description of data. Principles of statistical inference including hypothesis testing, interval estimation, and inferential error control. Emphasis on application.

Educ 409. Analysis of Experimental Data (3)

Emphasis on analysis of variance designs including one-way, factorial, nested, and repeated measures designs. Introduction to multiple regression and the analysis of covariance. *Prerequisite: Educ 408 or consent of instructor.*

Educ 410. Univariate Statistical Models (3)

The univariate general linear model. Principles of expressing models and hypotheses about those models. Emphasis on similarity among the analysis of variance, multiple regression, and the analysis of covariance. Examples of non-standard models and generalization to complex designs. *Prerequisite: Educ 409 or consent of the instructor.*

Educ 411. Multivariate Statistical Models (3)

The multivariate general linear model. Principles of expressing multivariate models and hypotheses about those models. Emphasis on similarity among the multivariate analysis of variance, multiple regression, and the analysis of covariance. Examples of non-standard models and generalization to complex designs. *Prerequisite: Educ 410 or consent of the instructor.*

Educ 412. Advanced Applications of Psychometric Principles (3)

Conceptual examination of exploratory and confirmatory factor analysis, cluster analysis, latent-trait modeling, and other advanced psychometric topics. *Prerequisites: Educ 409 or equivalent or SchP/CPsy 427.*

Educ 419. Second Language Acquisition (SLA) Theory (3)

This course introduces theories of second-language acquisition, including issues of acquisition of English as a second language as well as other languages. Various theories of communication and language acquisition will be covered.

Educ 421. Intercultural Communication (3)

Language is ambiguous by nature, and discourse is interpreted in cultural and linguistic contexts. This course covers different cultural and linguistic strategies individuals use to communicate, essential concepts for interacting with individuals from other cultural and linguistic backgrounds, and different strategies of communication as defined by specific cultures. Covering the theory and practice of intercultural interaction, the course examines assumptions about language and culture and includes practical advice to help students develop the cultural sensitivity essential for communication today.

Educ 422. Theory and Practice for Second Language Learning (3)

This course presents the application of second language acquisition (SLA) theories in relationship to teaching, and reviews methods and materials needed for ESL instruction in a regular classroom and in a pullout program. This course will demonstrate the knowledge of fundamental concepts and practices of English as a second language (ESL) instruction with an emphasis on instructional materials and strategies. Participants will be able to identify appropriate materials and resources to be used with students at each level of English proficiency.

Educ 423. Second Language Assessment (3)

This is a broad-spectrum course around the use of assessment tools, and other evaluation measurements for diagnosis, prescription, and evaluation of students in English as a second language (ESL) programs. This course will address part three: English Language Learners (ELLs) Language Support Services Knowledge. Participants will learn the effective assessment practices and support services available to ELL students. Participants will examine, explore and understand the purposes for assessment, multiple assessment models, use of evaluation techniques, scaffolding of assessments, and formal/informal assessment tools. Finally, participants will gain hands-on experience in test administration, interpretation and reporting.

***Educ 451. Applied Principles of Cognitive Psychology (3)**

Basic principles and contemporary theories of cognitive psychology will be covered, especially regarding the application of these principles to education. Experimental research relevant to contemporary theories of cognitive psychology and the application of these theories in educational settings will be reviewed.

**Open to non-degree students only with permission of instructor.*

Educ 461. Single-Subject Research Design (3)

Experimental designs for use with small N's. Topics include design theory and application, experimental validity (internal, external, statistical conclusions and construct validity) and an overview of data analysis procedures.

Educ 471 (CPsy 471). Diversity and Multicultural Perspectives (3)

Examination of the influence of culture, gender, and disabilities on behavior and attitudes. Historical and current perspectives on race, culture, gender, and minority group issues in education and psychology. Lecture/small group discussion. *Course is restricted to graduate students in the College of Education only.*

Educ 473. Social Basis of Human Behavior (3)

Development of human behavior from a social psychological perspective. Emphasis placed on the impact of society upon school-age children and adolescents.

Educ 482. Practicum in University Teaching: Education (1-4)

Mentored and guided co-teaching focused on the design, organization, pedagogy and assessment of university courses in Education. Students in this course will work with a faculty member to apply best practices in university teaching with feedback while co-teaching students in a course in the College of Education. Students taking the course must meet the college standards for participation and be approved by the program director and department chair. May be repeated for credit.

Educ 486. Doctoral Qualifying Research Project (1-3)

Design and implement research project under faculty supervision to meet requirements for doctoral programs. *May be repeated for credit.*

Educ 491. Advanced Seminars: (with subtitle) (1-6)

Intensive study and discussion of a specialized area. Title will vary. *May be repeated for credit as title varies.*

Educ 493. Internship in: (with subtitle) (1-6)

Opportunity for students to apply theory to practice in a variety of educational settings. Students will be supervised in the field and participate in seminars dedicated to addressing specific concerns and issues encountered during their experience.

Prerequisite: consent of the program director.

Educ 494. Field Work in: (with subtitle) (3)

Identification of significant problems in an educational environment, review of the literature, and development of appropriate research plans.

Educ 495. Independent Study in: (with subtitle) (1-6)

Individual or small group study in the field of specialization. Approved and supervised by the major adviser. *May be repeated.*

Educ 496. Doctoral Research Seminar (3)

For doctoral students. Research design and application to various kinds of educational problems; data collection and analysis. Criticism and evaluation of student proposals. *May be repeated for a maximum of nine credits.*

Educational Leadership

EdL 400. Organizational Leadership and Change Management (3)

Theory development relating to individuals and organizations emphasizing leadership, decision-making, motivation, and change. Analysis of existing leadership approaches focusing on demonstrating the application theories to administrative practice.

EdL 404. The Principalship I (3)

Roles, responsibilities, and operational tasks of principals in the first half of the school year; engagement in practical application of the knowledge, theories, systems, and processes with an emphasis on fall semester responsibilities. Focus on applying the skills and knowledge of the course using problem based learning experiences drawn directly from internship. Must be completed during Principal Internship I.

EdL 405. The Principalship II (3)

Roles, responsibilities, and operational tasks of principals in the second half of the school year; engagement in practical application of the knowledge, theories, systems, and processes with an emphasis on budgeting, state testing requirements and closing the school down in the summer. Focus on applying the skills and knowledge of the course using problem-based learning experiences drawn directly from internship. Must be completed during Principal Internship II.

EdL 408. Central Office Internship I (2)

Practical experiences in meeting the challenges inherent in the Superintendent and associated central office positions. Emphasis on the five basic functional office roles of the superintendent: CEO to the school board, human resource manager, instructional leader, financial manager, and director of community relations.

EdL 409. Central Office Internship II (2)

Practical experiences in meeting the challenges inherent in the Superintendent and associated central office positions. Emphasis on the budgeting process, state testing requirements and other priorities in the second half of a school year.

Prerequisite: Central Office Internship I.

EdL 414. Principal Internship I (2)

Practical experiences in meeting the challenges inherent in the principal positions during the first half of the school year. Emphasis on data based decision making, instructional leadership, and day to day operations. *Must be completed with EDL 404.*

EdL 415. Principal Internship II (2)

Practical experiences in meeting the challenges inherent in the principal positions during the second half of the school year. Emphasis on data based decision making, instructional leadership, and day to day operations. *Must be completed with EDL 405.*

***EdL 420. Data Based Decision Making (3)**

Theory, research, and processes associated with the design and management of school curriculum; implementation of effective instructional and assessment practices enhancing student learning. School leader's role in designing and implementing a comprehensive school improvement process, and using data to guide curriculum, instruction and assessment program.

**Open to non-degree students only with permission of program.*

EdL 421. Instructional Leadership (3)

Skills, competencies, and best practices of instructional leadership and student achievement. Includes framing and communicating school goals dealing with student learning, supervising and evaluating instructional practices, coordinating the curriculum to student outcomes, monitoring student progress, creating a professional learning community, and engaging in reflective practice as a school leader.

EdL 422. Curriculum Management for the School Executive (3)

A survey of the methods used to facilitate a curriculum development process based on the theories and findings from research and practice. Application of concepts to practical problems in curriculum leadership to acquire skills in the change process for instruction innovation. Emphasis on current theory and research in standards, technology, and curriculum integration.

EdL 423. Leading Inclusive Learning Systems (3)

Issues facing school administrators as they develop and implement plans to address the needs of all students in their schools and districts. Addresses administrators' obligations for the development and monitoring of Individualized Education Programs for children and youth with disabilities as well as other duties encumbered by administrators.

EdL 424. Leadership: Self and Groups (3)

Exploration of the development and practice of leadership with experiential opportunities for application. Formal and informal authority, the practice of leadership, and individual and organizational dynamics are explored to improve the understanding of adaptive work in organizations.

EdL 425. Leading and Managing Change (3)

Practices and theories about reform, change, and decision making look at who you need to communicate with and why each entity needs to be managed differently. Identify the educational stakeholders, the current trends that effect change, and what precipitates the need for change in the educational system. Addresses the process of change as it relates to individuals, the school board, teachers, students, and the administration with special emphasis on leadership, decision-making, motivation, and the dimensions of change.

EdL 426. Introduction to Relational Leadership: Theory and Practice (3)

Theory development relating to individuals and organizations with special emphasis on the superintendents prolonged effective working relationship with the board of education, the administration, the professional and support staffs and the community. Implementation, follow through, and maintenance are emphasized relating to the interpersonal savvy a superintendent needs to effectively establish trust, build and mend relationships, guide decision-making, instill motivation, lead stakeholders and manage change.

EdL 428. Practicum in Supervision of Curriculum and Instruction I (2)

Supervised field experience in all aspects of district-wide curriculum and instructional activities. Requires monthly seminar meetings.

EdL 429. Practicum in Supervision of Curriculum and Instruction II (2)

Advanced supervised field experience in all aspects of district-wide curriculum and instructional activities. Requires monthly seminar meetings. *Prerequisite: EdL 428.*

EdL 430. Development and Administration of Special Education Programs (3)

Exploration of the research and practice of an effective special education program. Emphasis on curriculum development, field-based research, and data-based decision making program design and evaluation, and the relationship of the special education program to the pupil services program and the regular curriculum.

EdL 432. Special Education Law (3)

An overview of the relevant legislation, regulations, and case law concerning the education of students with disabilities in pre-k through secondary school.

EdL 434. Leadership and Management of Special Education Programs (3)

Introduction to the management practices related to effective leadership of special education programs including budget development and management, staffing, instructional practices, student assessment practices, and parent involvement.

EdL 436. School District Governance: Planning Policy, Ethics and Law (3)

Examines federal and state Department of Education policies, laws, and regulations governing educational practice, policy, ethics and programming at the district level. Topics include a study of policy-making and related policies in a district, the role of the educational community in a developing a collaborative decision-making organization, equality of educational opportunity for all students, and how policy efforts are reshaped by federal, state and local systemic reform efforts.

EdL 437. School District Resource Management (3)

Theoretical and practical foundation in school resource allocation from the superintendent district wide perspective. Trends in revenue and expenditures, staffing, and operations, including school board issues, are explored. The economics of education and school business administration are discussed in terms of the policies they affect and create.

EdL 438. Practicum in Supervision of Special Education and Pupil Services Programs I (2)

Supervised field experience in all aspects of district-wide special education programs. Requires monthly seminar meetings.

EdL 439. Practicum in Supervision of Special Education and Pupil Services Programs II (2)

Supervised field experience in all aspects of district-wide special education programs. Requires monthly seminar meetings.

Prerequisite: EdL 438.

EdL 440. Development and Administration of Pupil Services Programs (3)

Exploration of the research and practice of an effective comprehensive pupil services program. Emphasis on involvement of community agencies, field-based research, and data-based decision-making, program design and evaluation, and the relationship of the pupil services program to the regular and special education curriculum.

EdL 442. Leadership and Management of Pupil Services Programs (3)

Overview of the management practices related to effective leadership of pupil services programs, including budget development and management, staffing, instructional practices, community agency partnerships, student assessment, legal issues, and parent involvement.

EdL 450. Curriculum Design in a Global Society (3)

Exploration of global issues and their effects on what is taught in schools, specifically in international schools. Emphasis on the analysis of curriculum and the influence that culture plays in decision making.

EdL 452. Comparative Education (3)

Survey of education practices abroad. Systems of articulation, social and legal foundations, and structure in government. Emphasis on the nature and purpose schools in various cultural contexts and the major problems and trends occurring throughout the world.

EdL 461. Facilitating Organizational Inquiry (2)

Exploration into the use of reflective practice and inquiry for professional development and school improvement. Development of group facilitation skills for collective inquiry. Reflection and inquiry will serve as the foundation for development of an action research project.

EdL 462. Transforming the Learner (2)

Exploration of the integration of social, personal, cognitive, and knowledge-building dimensions to support learning and literacy. Focusing on the metacognitive conversations with self and others essential for developing learning and leadership.

EdL 463. Designing Systems of Action (3)

Implementation of action research project. Building understanding of how the project impacts and is influenced by school and community systems. Explores the application of learning theory as related to leadership. Continued development of leadership concept and tools.

EdL 464. Sustaining Learning Communities (2)

Completion of action research. Design and facilitation of a symposium of inquiry results. Review the behaviors of leadership that sustain learning in the classroom, school, and community.

***EdL 467. Supervision and Professional Development (3)**

Emphasis on establishing skills in human resource management and supervision, including staff selection, supervision models, assessment and feedback methods, managing a diverse workforce, and adult development related to professional growth options. This course is designed specifically for individuals enrolled in a supervisory certification program.

**Open to non-degree students only with permission of program.*

EdL 468. Applied Learning Theory for School Leadership (3)

Overview of the foundations, principles, and theories of curriculum, teaching, and learning. Emphasis on historical perspectives, teaching and learning for understanding, and schools as professional organizations. The purpose is to provide prospective administrators with the background for developing a balanced and challenging school-wide curriculum, for supervising instruction, and for supporting school improvement.

EdL 470. Special Topics in Educational Leadership: (with subtitle) (1-6)

Intensive study and discussion of a specialized area. Title will vary. *May be repeated for credit as title varies.*

EdL 476. School Resources Management (3)

Theoretical and practical foundation in school resource allocation. Trends in revenue and expenditures, staffing, and operations are explored. The economics of education and school business administration are discussed in terms of the policies they affect and create.

EdL 477. Seminar in School-Community Relations (3)

Analysis and development of the communication and public relations skills needed by educators in dealing with the public.

EdL 479. School Law and Ethics (3)

Examination of legal and ethical issues in effective leadership in the public schools, including awareness, analysis and applications of judicial interpretations of the constitutions, statutes, regulations, and common law relating to educational issues.

***EdL 481. Policy and Politics in Public Education (3)**

Analysis of the forces, factors, agencies, formal governmental systems and informal subsystems that influence educational policy in local districts and state and national governments.

**Open to non-degree students only with permission of program.*

EdL 482. Practicum in University Teaching: Educational Leadership (1-4)

Mentored and guided co-teaching focused on the design, organization, pedagogy and assessment of university courses in Educational Leadership. Students in this course will work with a faculty member to apply best practices in university teaching with feedback while co-teaching students in a course in the College of Education. Students taking the course must meet the college standards for participation and be approved by the program director and department chair. May be repeated for credit.

EdL 485. The Superintendency (3)

A theoretical and historical examination of superintendents' leadership, school board / superintendent relations, and the array of duties and demands upon the superintendency.

EdL 488. Program Evaluation (3)

The historical background, theory, methodology, and current practices of program evaluation in the human services area. Emphasis on conducting evaluations of educational programs and gathering data to make effective program decisions. Participants are required to design a program evaluation research plan.

EdL 489. Doctoral Seminar in School Administration (3)

Analysis of the theoretical, empirical, and conceptual aspects of contemporary issues in educational administration and their implications for policy formulation and implementation in educational institutions. *Prerequisite: official standing as a doctoral student in educational leadership.*

School Psychology**SchP 402 (SpEd 402.) Applied Behavior Analysis (3)**

Theory and application of behavior modification methods in classroom and clinical settings. Topics include behavior analysis, outcome research, task utilization, and single case research.

SchP 404. Historical and Contemporary Issues in School Psychology (3)

History of psychology, education, and school psychology. Roles and function of school psychologist; legal and ethical aspects of school psychology.

SchP 406. Research Methods and Design (3)

This course is designed to provide skills in the use and application of research methodologies and in the conceptualizing and writing of research proposals. Specifically, the course is focused on developing conceptual knowledge of specific research methods, interpreting data using specific methods of analysis, and developing independent research skills focused around one's own research project. The course is primarily designed for doctoral students in School Psychology and Special Education. *Permission of instructor is required.*

SchP 407 (CPsy 407). Crisis Management in the Schools (3)

This course is designed to provide students with knowledge and skills related to crisis preparedness and intervention in the schools. Relevant theories and research literature will be explored as well as practical elements of crisis response that are applicable to all school systems. In addition, intervention strategies and protocols will be examined and discussed. *Permission of instructor is required.*

SchP 408. Dissertation Proposal Seminar (3)

The primary purpose of this course is to guide students in their independent research endeavors. Students will learn about the complexities of planning and initiating independent research, focusing on the writing process, methodological issues, and the management of time and data. Knowledge and competencies obtained in this seminar will be applied as students prepare their dissertation proposals.

SchP 412. Consultation Procedures (2)

Observational methodology utilized in consultation; rationale, theory and methods of consultation; individual, group and parent consulting. Study of research on the consultation process. *Students must also register for one credit of SchP 431.*

SchP 422. Assessment of Intelligence (3)

Administration and interpretation of individual tests of intelligence used in school evaluation and preparation of psychological reports. *Prerequisite: permission of instructor.*

SchP 423. Behavioral Assessment (3)

Techniques of behavioral assessment including direct observation, interviews, checklists, rating scales, self-monitoring and role-play tests. *Prerequisite: permission of instructor.*

SchP 425. Assessment and Intervention in Educational Consultation (3)

Collection and use of data in designing classroom interventions. Curriculum based assessment, direct behavioral assessment, and structured interviews, and the interrelationship with diagnoses are emphasized within the behavioral consultation model. Utilization of data from actual case studies. *Prerequisites: SchP 402, SchP 423.*

SchP 426. Advanced School and Family Interventions (3)

Overview of school-based and family-based intervention strategies for children and adolescents presenting interpersonal, emotional, developmental or behavioral challenges. Examples of topics covered include crisis intervention, peer-mediated interventions, self-management interventions, behavioral parent training, interventions for child abuse/neglect and computer-assisted instruction. *Prerequisite: SchP 402 or permission of instructor.*

***SchP 427 (CPsy 427). Assessment and Appraisal in Counseling (3)**

Principles of psychological measurement (e.g., tests construction, technology, validity, reliability, functional utility). Ethical, legal, and cultural issues in the administration and interpretation of psychological tests. Case conceptualization, reporting and presentation.

**Open to non-degree students in spring only.*

SchP 429. Special Topics in School Psychology (with subtitle) (1-3)**SchP 431. Practicum in Consultation Procedures (1-3)**

Supervised experience in conducting school-based consultations. *Co-requisite: SchP 412.*

SchP 432. Practicum in Assessment of Intelligence (1-3)

Supervised experience in the administration and interpretation of intelligence tests. *Co-requisite: SchP 422.*

SchP 433. Practicum in Behavioral Assessment (1-3)

Supervised experience in conducting behavioral assessments in school settings. *Co-requisite: SchP 423.*

SchP434. Applied Research Practicum (1-3)

Designing and conducting research projects in applied settings.

SchP 435. Practicum in Assessment & Intervention in Educational Consultation (1-3)

Supervised experience in conducting curriculum-based assessments and designing intervention strategies for educational problems. *Co-requisite: SchP 425.*

SchP 436. Specialized Practicum in School Psychology (with subtitle) (1-3)

Supervised field experience in school psychology with a specific population or setting. *May be repeated for credit. Permission of instructor required.*

SchP 437. Advanced Child Psychopathology (3)

Advanced training in the definition, classification, etiology, long-term outcome, and treatment of children and adolescents with various psychopathological disorders. Emphasis is placed upon the assessment and treatment of child and adolescent psychopathology in school settings. *Prerequisites: admission to doctoral program or by permission of instructor.*

SchP 438. Health/Pediatric Psychology (3)

Introduction to training in the definition, etiology and behavioral/academic characteristics of children and adolescents with medical disorders. Emphasis is placed on the assessment and treatment of educational and behavioral sequelae of medical disorders in both school and health settings. *Prerequisites: admission to doctoral program in school psychology or permission of instructor.*

SchP 439. Comprehensive School Health Programs (3)

Examination of school-wide programs designed to address health care needs of children and adolescents in school settings. Focus is on development of primary prevention and integration of educational, medical, social and community resources. *Permission of instructor required.*

SchP 440. Applications of Pediatric School Psychology (3)

Focus on further development of students' knowledge and application of pediatric school psychology. The etiology and developmental course of pediatric medical conditions will be examined, emphasizing the impact on school, family and community environments. *Prerequisite: SchP 438 or SchP 439 or permission of instructor.*

SchP 442. Doctoral Practicum in School Psychology (1-6)

Field-based experience in providing psychological services in school and/or clinical settings. *May be repeated for credit. Prerequisite: admission to doctoral program.*

SchP 443. Certification Internship (1-6)

Full-time experience in clinical/ educational settings. Student must complete a minimum of 1,200 clock hours under joint supervision of faculty and field supervisor. *May be repeated for credit.*

SchP 444. Doctoral Internship (1-6)

Full-time experience in clinical/ educational settings. Student must complete a minimum of 1,500 clock hours under joint supervision of faculty and field supervisor. *May be repeated for credit.*

SchP 473 (CPsy 473). Advanced Research Methods in Applied Psychology (3)

For doctoral students in applied psychology. Issues and methods of research design, data collection and data analysis. Advanced discussion of quantitative, qualitative and single-case research design. *Admission to the Ph.D. program in counseling psychology or school psychology or permission of the instructor.*

SchP 482. Practicum in University Teaching: School Psychology (1-4)

Mentored and guided co-teaching focused on the design, organization, pedagogy and assessment of university courses in School Psychology. Students in this course will work with a faculty member to apply best practices in university teaching with feedback while co-teaching students in a course in the College of Education. Students taking the course must meet the college standards for participation and be approved by the program director and department chair. *May be repeated for credit.*

***SchP 484 (CPsy 484). History and Systems of Psychology (3)**

This doctoral level course is designed as an overview of the history of psychology in the Western world. The historical approaches to this task will include a historical developmental approach to the origins and changes of ideas over time, the study of great persons and schools of thought, and a look at the Zeitgeist of each. This course will examine the nature of psychology as a whole, and the influence of philosophical worldviews in areas such as epistemology, ontology, teleology, and axiology. Part of this study regards the nature of science, and its power and limitations as applied to the understanding of human beings.

**Open to non-degree students only after consultation with and permission of the instructor.*

SchP 496. Doctoral Seminar in School Psychology (with subtitle) (3)

Selected topics in school psychology (titles will vary) including professional issues, assessment and intervention in school settings, and supervision of school psychology services. *May be repeated for credit. Prerequisite: admission to doctoral program.*

Special Education**SpEd 330. Special Topics in Special Education: (with subtitle)(1-3)**

Current issues in the education of individuals with special needs. Titles vary. *May be repeated for credit as title varies.*

SpEd 332. Education and Inclusion of Individuals with Special Needs in K-12 (3)

Overview of social, developmental, legal, and educational issues and practices related to the special education of individuals with disabilities. Covers social, environmental, and physiological etiology; development; identification; learning characteristics; and needs of individuals identified for special education. Emphasizes meeting diverse needs of students in general education classrooms through evidence-based practices and adaptations matched to learner needs. Addresses legal rights of students and their families, as well as legal responsibilities of teachers as required by IDEIA and other related special legislation.

Open to non-degree students in spring (with program director permission) & summer only.

SpEd 338. Emotional and Behavioral Disorders of Children (3)

Definition, classification, etiology, treatment, and historical perspective of children and adolescent disorders.

SpEd 402 (SchP 402). Applied Behavior Analysis (3)

Theory and application of behavior modification methods in classroom and clinical settings. Topics include behavior analysis, outcome research, task utilization, and single case research.

SpEd 404 (TLT 404). Diversity, Families, and School Collaborations in K-12 (3)

Cultural and linguistic diversity as critical variables in educational equity for all learners, including ELL. Explores home-school partnerships, family and professional collaboration, and teacher self-awareness. Implementing culturally sensitive and responsive classroom practices as well as forming collaborative relationships with families that respect diversity of family contexts. Collaborative, multidisciplinary teaming to support, optimize, and advocate for student's educational needs and connect to community services and resources available to individuals and families. Addresses family mental health issues and wraparound services.

SpEd 405 (TLT 405). Principles and Applications of K-12 Assessment (3)

Assessment applied to learning in classroom learning environments, including universal screening and progress monitoring. Discusses assessment approaches, ways to implement assessment, and use of assessment tools to monitor all students, including ELL and students with disabilities. Use of data-management and grading systems. Addresses diagnostic assessments for student placement and analysis of assessment data to tailor instruction to diverse student needs. Emphasis on research-based practices of assessment to inform instructional decision-making consistent with the RtII framework.

***SpEd 409 (TLT 409). K-12 Classroom Environment and Management (3)**

Designing inclusive classroom environments that maximize learning. Emphasis on fostering a community of learners using connections among classroom arrangement, classroom management, and cognitive development to create positive learning outcomes for all students, including ELL learners and students with disabilities. Addresses the tiered model of prevention and positive behavior support, including the role of functional assessment and individual positive behavior support plans in classroom management. Highlights the ways a positive climate for learning involves establishing and maintaining partnerships with families.

**Open to non-degree students only with program director permission.*

***SpEd 411 (TLT 411). Early Childhood Education (3)**

Introduction to development of early childhood education in the U.S. Emphasizes evidence-based methods and materials to assist young children in the learning process, including arrangement of indoor / outdoor space, developmentally appropriate practices, and the design of instruction to foster young children's emotional, social, language, cognitive, physical, and creative development. Includes embedded instruction and adaptations for students with identified disabilities, children at risk for developing disabilities, and children with culturally and linguistically diverse backgrounds, and family collaboration within the instructional planning process.

**Open to non-degree students only with program director permission.*

***SpEd 418. Alternative Curricular Approaches (3)**

Curricular and instructional methods for students with pervasive support needs (e.g., intellectual disabilities, autism) who follow an alternative or modified curriculum. Methods for developing an individualized curriculum, embedding instruction and accessing the general education curriculum, systematic instruction, and instruction for full participation in school, home, and community settings are covered. Strategies for facilitating emergent social and communication skills, teaching augmentative and alternative communication, and use of assistive technologies to enhance self-directed learning are included.

**Open to non-degree students only in summer and with program director permission. Field experience required.*

SpEd 419. Academic Interventions: PreK-8 (3)

Methods course designed to address the needs of students with disabilities to increase knowledge of instruction of comprehensive pre-literacy and literacy skills and their components. Additionally, pre-reading, reading, language arts, mathematics, and content area reading literacy skills in primary and elementary settings will be addressed. Emphasis on instructional planning, differentiated instructional strategies, appropriate assessments modifications, and adaptations needed for use with individuals with disabilities through a conceptual foundation in the components of reading and the integration of research validated interventions.

SpEd 420. Field Experience: Special Education Certification (1-3)

Intensive practice in the application of principles of teaching in a supervised experience in the schools for students who already hold another content area certification (e.g., elementary, middle school, secondary). *Prerequisite: Consent of the program.*

SpEd 421. Academic Interventions: Secondary Level (3)

Methods course designed to increase knowledge of core components of reading in secondary settings, language arts, mathematics, and content area literacy skills for students with disabilities and those who are culturally and / or linguistically diverse. Emphasis on instructional planning, differentiated instructional strategies, appropriate assessments, modifications, and adaptations needed for use with individuals with disabilities through a conceptual foundation in the components of reading and the integration of research validated interventions.

SpEd 423. Transition to Post-school Life (3)

Best instructional practices for preparing students for post-school adult life: employment, post-secondary education, and community participation in inclusive settings. Topics include transition planning, person centered and work-based assessments, family and interagency collaboration, innovative post-school and inschool transition services, and self-determination. Evidence-based practices to promote positive student outcomes are emphasized.

SpEd 429. Professional Seminar (3)

Master's seminar on current issues in the area of special education and research design. *Prerequisite is 18 graduate credits in special education.*

SpEd 430. Advanced Seminar in Special Education (3)

Advanced issues relating to the field of special education. Titles will vary.

***SpEd 432. Positive Behavior Support (3)**

Design of comprehensive, multi-component behavior support plans for individuals with a variety of disabilities who engage in problem behavior. Topics include functional assessment, antecedent and setting event interventions, replacement behaviors, consequence and crisis procedures, lifestyle interventions, and teaming strategies. Assessment focuses on the link between curriculum, academic performance, and behavior problems. Promotes consideration of diverse populations for understanding behavioral differences. Describes strategies for ongoing monitoring and maintenance of behavior reductions.

**Open to non-degree students only in summer and with program director permission. Field experience required.*

SpEd 434. Applied Research Practicum (1-3)

Designing and conducting research projects in applied settings.

SpEd 440. Early Academic Intervention (3)

Explores the potential effectiveness of interventions to prevent academic failure of children at risk for learning difficulties. Emphasis on research-based interventions in the areas of beginning reading, language and vocabulary, writing and spelling, awareness of print and exposure to print, and mathematics (number sense).

SpEd 442 (TLT 442). General Education and Special Education Student Teaching and Seminar (1-6)

Intensive practice in the application of principles of teaching for both general and special education settings in a supervised internship in the schools (for dual certification). Regular meetings among student teachers for critical analysis and discussion of classroom instructional practices, as illustrated by the student teachers' experiences in the schools. Practical mentoring on professionalism, applying differentiated instructional models in real-world setting, and aligning instruction with standards. *Prerequisite: consent of the program director.*

SpEd 446. Practicum/Seminar in Academic Interventions (3)

Supervised field work with emphasis on designing and implementing academic interventions. Emphasis on collaboration with general education teachers and parents. Requires one-hour monthly seminar meetings. *This course is restricted to students enrolled in the Academic Intervention Specialist program.*

SpEd 448. Practicum/Seminar in Positive Behavior Specialist 1 (3)

Introductory supervised field work with emphasis on conducting functional assessments, designing positive behavior support plans, and teaming with families and professionals. Requires one-hour weekly meetings with faculty and other practicum students. *This course is restricted to students enrolled in the Positive Behavior Specialist program.*

SpEd 450. Practicum/Seminar in Positive Behavior Specialist 2 (3)

Advanced field work with emphasis on resolving difficult case problems in positive behavior support. Requires one-hour weekly meetings with faculty and other practicum students. *This course is restricted to students enrolled in the Positive Behavior Specialist program.*

SpEd 452. Assessment in Special Education (3)

Identification, administration and interpretation of a variety of assessments used for planning and to determine special education eligibility and to assess social, emotional, behavioral, and academic functioning. Discusses strengths and limitations of various models and assessment, both formal and informal, instruments used to evaluate the need for special education. Describes strategies to enhance the relationship between assessment and service delivery. Addresses assessment practices to identify curricular needs consistent with the RtII framework.

SpEd 465. Advanced Inclusionary Practices in K-12 (3)

Advanced techniques grounded in current research-based methods and best practice for educating and assessing students with disabilities, students from diverse backgrounds, and English language learners using a standards-aligned system. Accommodations, modifications, planning for physical and instructional inclusion through embedded strategic instruction, adaptations, and curriculum overlapping. Addresses decision hierarchies for level of instructional adaptation and social inclusion methods through social facilitation techniques. Explores critical factors in developing, implementing, and modifying curriculum using evidence-based practices. Explores collaborative co-planning and co-teaching models.

SpEd 482. Practicum in University Teaching: Special Education (1-4)

Mentored and guided co-teaching focused on the design, organization, pedagogy and assessment of university courses in Special Education. Students in this course will work with a faculty member to apply best practices in university teaching with feedback while co-teaching students in a course in the College of Education. Students taking the course must meet the college standards for participation and be approved by the program director and department chair. May be repeated for credit.

SpEd 490. Doctoral Seminar in Special Education (3)

Advanced knowledge of issues and research in the education of individuals with special needs. Topics will vary. *May be repeated for credit. Prerequisite: admitted for doctoral studies.*

Teaching, Learning and Technology

TLT 367 (ES 367). Environmental Education (3)

Introductory environmental education course designed to prepare students to implement environmental education opportunities in formal and non-formal education settings. Topics include history and philosophy of environmental education, environmental laws and regulations, GIS, environmental issues and decision-making, curriculum integration and environmental education teaching methodologies. This is a Web-enhanced course containing both online and fieldwork components.

TLT 368. Teaching & Learning with Geospatial Tools (3)

Exploration of geospatial tools, including but not limited to global positioning systems (GPS), geographic information systems (GIS), and related visualization tools (e.g., Google Earth). Application of these tools and techniques to instructional settings, including appropriate pedagogy and assessment.

TLT 380. Child Development and Cognition (3)

Introduction to physical, motor, perceptual, cognitive, language, emotional, social, and gender development of young children and adolescents. Developmental history, theories, and research, as well as the effect of culture, family, peers, media, and schooling on the individual and groups. Students investigate typical and atypical development and explore the implications of individual differences for teaching and learning, with an emphasis on evidence-based instructional practices designed to optimize the growth and development of all learners. Explores mental health issues and at-risk students.

TLT 391. Workshops (1-3)

Cooperative study of current educational problems. Provides elementary, secondary, and special education teachers an opportunity to work at their own teaching levels and in their own fields. Limited to six credits during a summer session but the student may register for more than one workshop provided there is no duplication in subject matter.

TLT 394. Special Topics in Education: (with subtitle) (1-3)

Examination of a topic of research or professional interest in education. Subtitle will vary. *May be repeated for credit as subtitle varies.*

TLT 401. Overview of Teaching and Learning (3)

Foundations and key concepts in learning and instructional theory. Cognition and brain-based research with a focus on innovations in teaching and learning.

TLT 402. Critical Reading and Writing (3)

Using literature to build persuasive written arguments. Searching and identifying promising sources, distilling research findings, synthesizing literature to support an argument, and organizing written materials to enhance persuasiveness. Suited to those writing qualifying projects, dissertation proposals, dissertations, funding proposals, conference proposals, and journal articles.

TLT 403. Instructional Design

Social, cognitive, and environmental factors in designing for teaching and learning. Systems theory applied to learning settings. Special emphasis on motivational theories and technological affordances. *Prerequisite or co-requisite TLT 401 or POI.*

TLT 404 (SpEd 404). Diversity, Families, and School Collaborations in K-12 (3)

Cultural and linguistic diversity as critical variables in educational equity for all learners, including ELL. Explores home-school partnerships, family and professional collaboration, and teacher self-awareness. Implementing culturally sensitive and responsive classroom practices as well as forming collaborative relationships with families that respect diversity of family contexts. Collaborative, multidisciplinary teaming to support, optimize, and advocate for student's educational needs and connect to community services and resources available to individuals and families. Addresses family mental health issues and wraparound services.

TLT 405 (SpEd 405). Principles and Applications of K-12 Assessment (3)

Assessment applied to learning in classroom learning environments, including universal screening and progress monitoring. Discusses assessment approaches, ways to implement assessment, and use of assessment tools to monitor all students, including ELL and students with disabilities. Use of data-management and grading systems. Addresses diagnostic assessments for student placement and analysis of assessment data to tailor instruction to diverse student needs. Emphasis on research-based practices of assessment to inform instructional decision-making consistent with the RtII framework.

***TLT 407. Instructional Design for K-12 Classrooms (3)**

Introduces the systematic design of instruction following the Response to Instruction and Intervention (RtII) and Universal Design for Learning models. Explores theories of learning and instructional applications as a part of technology-based and standards-aligned classroom education grounded in the use of a quality, research-based core curriculum and effective instructional practices to meet the needs of all learners. Addresses appropriate use of instructional technologies for universal learning. Students will plan, design, and develop student-centered, standards-aligned, technology-supported instruction and appropriate learner assessments.

**Open to non-degree students only with program director permission.*

***TLT 409 (SpEd 409). K-12 Classroom Environment and Management (3)**

Designing inclusive classroom environments that maximize learning. Emphasis on fostering a community of learners using connections among classroom arrangement, classroom management, and cognitive development to create positive learning outcomes for all students, including ELL learners and students with disabilities. Addresses the tiered model of prevention and positive behavior support, including the role of functional assessment and individual positive behavior support plans in classroom management. Highlights the ways a positive climate for learning involves establishing and maintaining partnerships with families.

**Open to non-degree students only with program director permission.*

TLT 410. The Writing Process (3)

Developmental characteristics of children's writing and relationships among writing, spelling and reading. Predictors of writing achievement, teaching strategies and activities, and evaluation schemes will be emphasized, K-12.

***TLT 411 (SpEd 411). Early Childhood Education (3)**

Introduction to development of early childhood education in the U.S. Emphasizes evidence-based methods and materials to assist young children in the learning process, including arrangement of indoor/outdoor space, developmentally appropriate practices, and the design of instruction to foster young children's emotional, social, language, cognitive, physical, and creative development. Includes embedded instruction and adaptations for students with identified disabilities, children at risk for developing disabilities, and children with culturally and linguistically diverse backgrounds, and family collaboration within the instructional planning process.

**Open to non-degree students only with program director permission.*

TLT 412. Social Studies in PreK through 4th Grade (3)

Overview of Pennsylvania's PreK-4 Standards for social studies, including: Pennsylvania history, United States history, economics, civics and government, citizenship, political science/government, and geography. Development, implementation and evidence-based assessment of preK-grade 4 social studies curricula. Effective teaching techniques such as lesson planning, inclusive practices, integrating instructional technologies into instruction, reflecting on teaching, and the latest research-based teaching and assessment methods. Emphasis on alignment of instruction with standards.

TLT 420. Reading and Literacy in PreK through 4th Grade (3)

Methods of teaching reading and literacy in preK-4, including critical components of early literacy. Selection of appropriate materials, instructional strategies, techniques, and formative and summative assessments. Best practices in reading instruction in a standards-aligned curriculum, explicit strategies for teaching vocabulary and comprehension, and using evidence-based practices to teach reading to learners at all levels of proficiency. Helping learners make the transition from learning to read to reading to learn. Working with families and non-school support services to enhance reading development.

TLT 422. Language Arts in PreK through 4th Grade (3)

Principles of language learning and the development of communication skills from preK-4. Implications of developmental differences and experiences in non-school settings on student readiness and skills. Helping parents support their children's language skills development. Methods of teaching listening, speaking, and writing, including spelling, punctuation, grammar, and handwriting. Selection of appropriate standards-aligned materials, textbooks, assessments, and evidence-based approaches to teach the language arts to learners from a variety of backgrounds and across a range of abilities.

TLT 424. Children's Literature in Elementary Education (3)

Role of literature in the instructional program of the elementary schools. Use of trade books for individualized instruction in reading, language arts, mathematics, science, and social studies.

TLT 426. Science in PreK through 4th Grade (3)

Overview of inquiry-based activities and investigations to promote science learning in preK-grade 4 classrooms. Emphasis on Pennsylvania's PreK-4 Standards for Science and Technology and Environment and Ecology standards and aligning instruction with standards. Course activities include planning effective lessons, trying out new methods of teaching, reflective practice, inclusionary methods, and integrating instructional technologies into science learning. Evidence-based assessment types are highlighted within instructional contexts.

TLT 428. Mathematics and Numeracy in PreK through 4th Grade (3)

Trends, theories, activities and manipulative materials for teaching early numeracy and elementary mathematics. Pre-school development and in-school skills and concepts, including sets, systems of numeration, experience with numbers, number operations and concepts, numerals, measurement, early algebra, and elements of geometry. Implications of developmental differences and early non-school experiences on learner readiness and skills. Helping parents support their children's mathematics conceptual development. Research-based practices and inclusionary approaches to teach mathematics to learners from a variety of backgrounds and across ability levels.

TLT 431. Social Studies in Middle Level and High School Education (3)

Middle and high school curriculum, content, teaching strategies, and instructional materials for the social studies. Emphasis on organizing content, using appropriate methods, testing and evaluation, and appropriate integration of technology. Overview of Pennsylvania's 4-8 and 8-12 standards for social studies and related standards from the National Council for the Social Studies and other national organizations. Explores relevant research, courses of study, textbooks, and teacher-made materials. Addresses inclusive evidence-based and standards-aligned instructional approaches and techniques, including co-teaching.

TLT 432. Reading and Critical Thinking in Middle Level and High School Education (3)

Development of reading in the secondary content areas (English/language arts, mathematics, science, social studies). Highlights effective teaching strategies in critical areas, such as higher order reading and study skills. Addresses analysis of evidence based methods and current research for improving the reading development and analytical skills of all students.

TLT 434. English in Middle Level and High School Education (3)

Curricula, philosophy, methods, strategies, and materials for the teaching of middle and high school English. Literature, genres, and the nature of text and text differences. Critical analysis and drawing inferences from narrative text and poetry. Techniques for teaching and enhancing writing in various styles. Applications of technology and assessment principles. Addresses inclusive evidence-based and standards-aligned instructional approaches and techniques, including co-teaching.

TLT 436. Science in Middle Level and High School Education (3)

Overview of inquiry-based activities and investigations to promote science learning in secondary science classrooms. Emphasis on aligning instruction with Pennsylvania's Standards for Science and Technology and Environment and Ecology standards. Course activities include planning effective lessons, trying out new methods of teaching, inclusionary methods, reflective practice, and integrating instructional technologies into science learning. Evidence-based assessment types highlighted within instructional contexts.

TLT 438. Mathematics in Middle Level and High School Education (3)

Standards-based and technology-intensive curricula, instructional activities, and manipulative aids for mathematics in middle level and high schools. This course models and explores an investigative and hands-on approach to secondary mathematics instruction. Particular attention given to learning theories, curriculum issues, and recommendations arising from state, national, and international assessments. Research-based practices and inclusionary approaches to teach mathematics to learners from a variety of backgrounds and across a range of abilities. Addresses standards-aligned instructional approaches and techniques, including co-teaching.

TLT 440. Pre-professional Seminar (3)

Study, directed observation of, and initial practice in the various phases of teaching in secondary schools. Guided opportunities to try out strategies to facilitate the inclusion of special education students, differentiated instructional practices, and standards-aligned and evidence-based instructional approaches in actual school settings. *Prerequisite: consent of the program coordinator.*

TLT 442 (SpEd 442). General Education and Special Education Student Teaching and Seminar (1-6)

Intensive practice in the application of principles of teaching for both general and special education settings in a supervised internship in the schools (for dual certification). Regular meetings among student teachers for critical analysis and discussion of classroom instructional practices, as illustrated by the student teachers' experiences in the schools. Practical mentoring on professionalism, applying differentiated instructional models in real-world setting, and aligning instruction with standards. *Prerequisite: consent of the program director.*

TLT 444. General Education Student Teaching and Seminar (1-6)

Intensive practice in the application of principles of teaching for general education settings in a supervised internship in the schools. Regular meetings among student teachers for critical analysis and discussion of classroom instructional practices, as illustrated by the student teachers' experiences in the schools. Practical mentoring on professionalism, applying differentiated instructional models in real-world setting, and aligning instruction with standards. *Prerequisite: consent of the program director.*

TLT 454. Applied Instructional and Interface Design Principles (3)

Exploration and application of design models for learning. Special emphasis on the application of perception theory, communication theory, and learning theory to the design of media for teaching and learning. *Prerequisite: TLT 403 or POI.*

TLT 456. Instructional Design and Development Studio (3)

Studio-based, authentic and collaborative design experiences led by a faculty mentor. Students work in teams to complete substantial multimedia design and development projects. Prerequisites: TLT 454 and TLT 460 or POI.

TLT 458. Introduction to Multimedia Programming and Resource Development for Learning (3)

Introduction to programming and resource development tools used in the creation of interactive multimedia teaching and learning materials.

TLT 460. Advanced Multimedia Programming and Resource Development for Learning (3)

Advanced exploration of programming and resource development tools used in the creation of interactive teaching and learning materials. *Prerequisite: TLT 458 or POI.*

TLT 462. Special Topics in Development of Instructional Resources and Technologies for Learning (subtitle) (1-3)

Focus on using advanced Website and digital resource development-and-manipulation tools to create multimedia learning materials. Topics will vary (for example, Database-Driven Web Development; Assistive Devices for Special Populations; Programming Handheld Devices; Multimedia Resource Development; Media Production for Instructional Programming). May be repeated for credit under different subtitles.

TLT 466. Field Experience: General Education Certification (1-3)

Intensive practice in the application of principles of teaching in general education in a supervised experience in the schools for students who already hold special education certification. Practical mentoring on professionalism, applying differentiated instructional models in real-world setting, and aligning instruction with standards. *Prerequisite: Consent of the program director.*

TLT 470. Technology for Teaching and Learning (3)

Analysis of available technologies (hardware, software, and Web resources), and identification of technologies matched to learner needs in traditional and/or non-traditional settings.

TLT 472. Online Teaching and Learning (3)

Examination of contemporary research on online learning and recognized best practices on the design and delivery of online, hybrid, and/or flipped courses or course modules. Emphasis on online activities to experience ways to maximize instructor presence and student engagement, collaboration, and achievement.

TLT 474. Large-scale Planning and Implementation of Educational Technology (3)

Addresses topics such as planning, maintaining, funding, networking, staffing, staff development, and monitoring of educational technology implementations.

TLT 476. Assessment of Instructional Technologies (3)

Techniques for evaluating technology implementations for teaching and learning. Focus on topics such as instrumentation, data collection and analysis, drawing conclusions from data sets, and preparing reports for stakeholders.

TLT 480. Curriculum Theory and Design (3)

Curricular models and their features, with a focus on curriculum development and enactment. Special emphasis on design principles, curriculum's role in K-12 settings, and technology-enhanced curriculum.

TLT 482. Practicum in University Teaching: Teaching, Learning & Technology (1-4)

Mentored and guided co-teaching focused on the design, organization, pedagogy and assessment of university courses in Teaching, Learning and Technology. Students in this course will work with a faculty member to apply best practices in university teaching with feedback while co-teaching students in a course in the College of Education. Students taking the course must meet the college standards for participation and be approved by the program director and department chair. May be repeated for credit.

TLT 486. Doctoral Research Project (3)

This course provides students with the opportunity to design and conduct research studies under the supervision of specific faculty.

TLT 492. Classroom Research Methods (3)

Introduces students to classroom research design paradigms and the assumptions behind them, use of the literature, developing research questions, qualitative and quantitative procedures, research design, sampling design, data collection, data analysis, and reporting research results using educational applications.

TLT 494. Culminating Research Project (3)

Designing and conducting research projects in classroom settings.