Science Education

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Program Codes:
20FS5524MED

The College of Education offers course work which leads to the Master of Education in Science Education.

Admission and Degree Requirements
- MED in Science Education (http://catalog.uic.edu/gcat/colleges-schools/education/sci-ed/med)

Curriculum and Instruction

CI 400. Anthropology & Education. 3 or 4 hours.
This course uses an anthropological approach in the study of formal and informal educational processes to understand the relationship between education, culture and society as represented in ethnographic texts. Course Information: 3 undergraduate hours. 4 graduate hours. Prerequisite(s): Consent of the instructor. Recommended background: ED 100, and ED 135, and ED 205; and ANTH 100 or ANTH 101.

CI 401. Methods of Reading: Early Literacy in Urban Classrooms. 3 hours.
Exploration of literacy assessment and teaching (including decoding, early writing, spelling, oral language, and comprehension), with a focus on learning to read and write. Course Information: Previously listed as ED 257.

CI 402. Reading and Writing in the Content Areas: Intermediate Literacy in Urban Classrooms. 3 hours.
Exploration of advanced aspects of literacy instruction (e.g., comprehension, writing, literacy in the content areas), with a focus on reading and writing to learn. Course Information: Previously listed as ED 340. Prerequisite(s): CI 401 and junior standing or above and admission to the Bachelor of Arts in Elementary Education program.

CI 403. Literacy in the Disciplines: Adolescent Literacy in Urban Classrooms. 3 hours.
Exploration of using literacy in disciplinary content areas, including building prior knowledge and specialized vocabulary. Course Information: Previously listed as ED 341. Prerequisite(s): Junior standing or above and admission to the B.A. in Urban Education, Concentration in Elementary Education Program. Successful completion of CI 402.

CI 404. Teaching and Learning Mathematics in the Urban Elementary Classroom. 3 hours.
Helps prospective elementary teachers create a foundation from which they can develop an exemplary mathematics teaching practice. Course Information: Previously listed as ED 342. Prerequisite(s): Junior standing or above and admission to the Bachelor of Arts in Urban Education, Concentration in Elementary Education, and MATH 140 and MATH 141 or the equivalent courses.

CI 405. Teaching and Learning Science in the Urban Elementary Classroom. 3 hours.
Learning how to teach core scientific and engineering ideas, crosscutting concepts, and practices to advance student learning with a focus on community and societal relevance. Course Information: Previously listed as ED 343. Prerequisite(s): Junior standing or above; and consent of the instructor.

CI 406. Teaching and Learning Social Sciences in the Urban Elementary Classroom. 3 hours.
Models effective teaching of history and social sciences in urban classroom grades 1-6, in a way that is inclusive of diverse peoples, cultures, and histories. Students learn to teach core concepts, intellectual skills, and participatory dispositions. Course Information: Previously listed as ED 344. Prerequisite(s): Junior standing or above and admission to the Bachelor of Arts in Urban Education, Concentration in Elementary Education.

CI 410. Literature, Social Studies, and the Arts in the Elementary School. 4 hours.
Theory and practice in curriculum development, planning instruction, and assessing learning in elementary classrooms. Literature, social studies, and the arts content foci. Course Information: Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

CI 411. Creating Learning Environments in the Elementary School. 3 hours.
Examination of beliefs about teaching culture and learning in urban America in relation to the creation of learning environments with emphasis on application of state standards in classrooms and the development of a electronic teaching portfolio. Course Information: 30 hours of fieldwork required. Prerequisite(s): Graduate standing and CI 412. Class Schedule Information: To be properly registered, students must enroll in one Laboratory-Discussion, one Lecture-Discussion and one Practice.

CI 412. Dynamics of Learning Environments. 3 hours.
Exploration of multiculturalism and bilingualism/biculturalism in schools and families. Continued development of electronic portfolio for meeting Illinois professional teaching and technology standards. Course Information: Prerequisite(s): Graduate standing and Enrollment in M.Ed. in Elementary Education Program. Class Schedule Information: To be properly registered, students must enroll in one Laboratory-Discussion, one Lecture-Discussion and one Practice.

CI 413. Foundations of Literacy Instruction, K-8. 4 hours.
For prospective teachers, introduction to teaching literacy K-8; examining cognitive, social, developmental perspectives; relationships between language and literacy; connections to school subjects; aligning instruction, assessment, standards. Course Information: Extensive computer use required. Word processing on writing; search engines for examining literacy curriculum, professional organizations, email networks. Prerequisite(s): Graduate standing.
CI 414. Middle and High School Literacy. 3 hours.
Focuses on the teaching of reading and writing strategies appropriate for disciplinary learning and expression. Course Information: Field work required. Prerequisite(s): Junior standing or above; and consent of the instructor.

CI 428. Curriculum and Teaching in Secondary Education. 3 hours.
Introduction to the study of curriculum and teaching. Specifically designed for graduate students wanting to become middle and high school teachers, students who are newly admitted to the secondary education program. Course Information: Credit is not given for CI 428 if the student has credit for ED 430. Field work required. Prerequisite(s): Open only to Master's degree students in the Secondary Education Program; and consent of the instructor.

CI 430. Teaching Middle Grades Social Sciences: Content and Methods. 3 hours.
Models effective teaching of history and the social sciences in the urban elementary classroom grades 5-8, in a way that is inclusive of the diverse peoples, cultures, and histories that make up our society. Course Information: Prerequisite(s): Junior standing or above; or consent of the instructor. Restricted to students in the College of Education and Secondary History Education Program students in LAS.

CI 450. Societal Bases of Languages, Literacies and Learning. 4 hours.
Introduction to social and cultural processes by which languages and literacies are learned and develop in and out of school within the broader policy and ideological contexts. Course Information: Prerequisite(s): Graduate standing.

CI 451. Foundations of Writing. 3 or 4 hours.
Introduction to writing research, theory and practice, including writing development, processes, digital writing, pedagogy, assessment. Combines academic study of writing theory/research with guided inquiry into writing processes and pedagogy. Course Information: 3 undergraduate hours. 4 graduate hours. Previously listed as CI 544. Extensive computer use required. Prerequisite(s): CI 401 and CI 402. Recommended background: Admission to the M.Ed. in Instructional Leadership: Literacy, Language and Learning, or the B.A. in Urban Education program.

CI 452. Children’s and Young Adult Literature and Media. 3 or 4 hours.
Overview of trade books and media for children from preschool through adolescence. Emphasizes critically reading, selecting, evaluating materials appropriate for developmental stages, curricular connections, and students in our multicultural society. Course Information: 3 undergraduate hours. 4 graduate hours. Previously listed as CI 546.

CI 453. Digital Literacies and Learning. 4 hours.
Theoretical foundations of digital literacies and learning focusing on critical interpretation/production involving texts, tools, and technologies that are online, mobile, and/or networked. Includes methods for teaching digital literacies P-12.

CI 464. Bilingualism and Literacy in a Second Language. 4 hours.
Theoretical foundations of second language acquisition and the teaching of English as second language. Methods and materials for teaching reading and writing in bilingual/ESL settings. Course Information: Field work required. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

CI 470. Language, Culture, and Learning in Urban Classrooms. 4 hours.
An introduction to the study of multilingualism, language development, learning, and methodologies for teaching in linguistically and culturally diverse educational settings. Course Information: Previously listed as ED 346. Field work required. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

CI 472. Language Proficiency Assessment and ESL Instruction. 4 hours.
Study of and practicum in English language proficiency assessment; methods, materials, and resources for assessing oral language, reading, and writing in P-12 school settings. Course Information: Field work required. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

CI 475. Teaching and Learning of the Natural Sciences. 3 hours.
Prepares teacher candidates with the knowledge, skills and dispositions needed for teaching science in urban contexts by investigating big questions and concepts in natural sciences education. Course Information: Previously listed as CI 530. Field work required. Prerequisite(s): Graduate standing; or consent of the instructor. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

CI 477. Special Topics in Curriculum and Instruction. 1-4 hours.
Exploration of an area not covered in existing course offerings. Content varies. Course Information: May be repeated to a maximum of 12 hours. Students may register in more than one section per term. Prerequisite(s): Consent of the instructor.

CI 500. Proseminar in Curriculum and Instruction. 1 hour.
Research-oriented colloquia on issues in curriculum and instruction. Serves as introduction to faculty research interests. Provides opportunity to consider issues in research design. Course Information: Satisfactory/Unsatisfactory grading only. May be repeated. Prerequisite(s): Admission to the Ph.D. in Education program or consent of instructor.
CI 503. English Language Arts and Instruction in the Elementary School. 4 hours.
Focus on literacy instruction. Examines cultural, cognitive, linguistic, social, developmental perspectives; relationships between language and literacy; disciplinary literacies, digital literacies; aligning instruction, assessment, standards. Course Information: Prerequisite(s): CI 450.

CI 504. Secondary Literacy. 4 hours.
Focuses on the foundations of literacy and on the literacy processes of middle and secondary students and how these processes apply to reading and writing in the disciplines. Course Information: Field work required. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

CI 505. Integrated Reading and Writing Instruction. 4 hours.
Examination of the reading-writing relationship. Specific instructional strategies for teaching reading and writing together in the elementary grades. Course Information: Prerequisite(s): CI 413; or consent of the instructor.

CI 507. Teaching and Learning Mathematics in the Elementary School. 4 hours.
For prospective teachers, integrating mathematics content with teaching and learning issues, including adapting and developing curriculum, planning, classroom interactions, and assessment in K-9 classrooms. Course Information: Recommended background: Admission to M.Ed. in Instructional Leadership Concentration in Elementary Education program.

CI 508. Teaching and Learning Science in the Elementary School. 4 hours.
For prospective teachers, development of multiple frameworks for facilitating the learning of science in students of various abilities, cultures, and backgrounds. Course Information: Prerequisite(s): Admission to M.Ed. in Instructional Leadership Concentration in Elementary Education program. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

CI 509. Reading and Writing with Young Children. 4 hours.
The early writing and reading behaviors of children and how these develop during the primary grades. Observation, teaching, and assessing are emphasized. Course Information: Prerequisite(s): ED 422; and consent of the instructor.

CI 511. Student Teaching in the Elementary Grades I. 6 hours.
Culminating course in graduate elementary teacher education. Meets Illinois State Board of Education requirements for certification. Course Information: Prerequisite(s): Completion of all professional education courses and program requirements. Must enroll concurrently in CI 512. Class Schedule Information: To be properly registered, students must enroll in one Discussion/Recitation and one Practice.

CI 512. Student Teaching in the Elementary Grades II. 6 hours.
The culminating course in the graduate elementary teacher education sequence. Meets Illinois State Board of Education requirements for certification. Course Information: Prerequisite(s): Graduate standing and concurrent registration in CI 511 required. Class Schedule Information: To be properly registered, students must enroll in one Conference and one Practice.

CI 516. Research on Mathematics Teachers and Teaching. 4 hours.
Grounds students in research on mathematics teachers and teaching, while situating the literature within the broader sociopolitical context. Course Information: Prerequisite(s): Admission to the Ph.D. in Mathematics and Science Education and graduate standing; or consent of the instructor. Recommended background: Experience in STEM (science, technology, engineering, mathematics) education.

CI 517. The Sociopolitical Context of Mathematics and Science Education. 4 hours.
Examines the sociopolitical context of mathematics and science education to understand how these domains interact with local, global, sociopolitical forces and movements. Course Information: Prerequisite(s): Admission to the Ph.D. in Mathematics and Science Education; or consent of the instructor. Recommended background: Experience in STEM (science, technology, engineering, mathematics) education.

CI 518. Race, Identity, and Agency in Mathematics and Science Education. 4 hours.
Explores an emerging literature that is situated at the intersection of scholarship on race, identity, and critical mathematics and science education. Participants will analyze the theories and methods that inform these literatures. Course Information: Prerequisite(s): Admission to the Ph.D. in Mathematics and Science Education and graduate standing; or consent of the instructor. Recommended background: Experience in STEM (science, technology, engineering, mathematics) education.

CI 519. Research on the Learning of Mathematics. 4 hours.
Examines research on the learning of mathematics, including: whole number concepts and operations, rational numbers and proportional reasoning, algebra, functions, geometry, probability and statistics, problem solving, and proof. Course Information: Prerequisite(s): Admission to the Ph.D. in Mathematics and Science Education and graduate standing; or consent of the instructor. Recommended background: Experience in STEM (science, technology, engineering, mathematics) education.

CI 520. The K-12 Mathematics Curriculum: Theory, Politics and Reform. 4 hours.
A look at the K-12 curriculum from three perspectives: theoretical (epistemological, learning, teaching), political (whose interests are served) and practical (implementation issues in schools). Course Information: Prerequisite(s): Consent of the instructor.

CI 525. Assessment and Instruction for Struggling Readers, K-12, Part 1. 4 hours.
Theoretical and practical issues concerning the etiology of reading problems and clinical diagnostic techniques. Children with reading problems are diagnosed and taught in the practicum component. Course Information: Prerequisite(s): CI 450; and CI 503 or CI 504; and consent of the instructor. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

CI 526. Assessment and Instruction for Struggling Readers, K-12, Part 2. 4 hours.
Continued study of theoretical and practical issues concerning the etiology of literacy problems and clinical diagnostic and instructional techniques. Practicum involves tutoring clients in the UIC Reading Clinic. Course Information: Prerequisite(s): CI 525. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.
CI 527. Literacy Leadership. 4 hours.
Theories and practices related to the role of the literacy coach/reading specialist. Addresses data-driven strategy development; support systems for programs/personnel; curriculum design/implementation; and staff professional development in literacy.

CI 528. Assessing Language and Literacy for Instruction. 4 hours.
Study of and practicum in P-12 literacy assessment and its relation to instruction. Involves conducting and interpreting specific formal and informal literacy/language assessments and drawing implications for individualized and group instruction. Course Information: Field work required. Class Schedule Information: To be properly registered, students must enroll in one Lecture/Discussion and one Practice.

CI 529. Secondary Science Education in Urban Settings. 4 hours.
Introduction to the study of curriculum and teaching for those interested in urban education and who want to become secondary science teachers at the high school level. Course Information: 4 hours. Field work required. Recommended background: An undergraduate degree in a science field.

CI 530. Introduction to Educational Evaluation. 4 hours.
Study of and practicum in educational assessment and its relation to instruction. Focuses on evaluating teaching and learning in P-12 settings with emphasis on standards and accountability. Course Information: Field work required. Prerequisite(s): CI 523 or consent of the instructor. Class Schedule Information: To be properly registered, students must enroll in one Lecture/Discussion and one Clinical Practice.

CI 531. Curriculum, Instruction, and Assessment for Equity in Secondary Science Education. 5 hours.
Developing practices of science teaching in urban secondary contexts, including understanding students and context in order to design lesson plans, differentiate instruction, enact classroom discipline, assess learning, and reflect on practices. Course Information: Field work required. Prerequisite(s): CI 529; or consent of the instructor. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Clinical Practice.

CI 532. Literacy Leadership. 4 hours.
Theories and practices related to the role of the literacy coach/reading specialist. Addresses data-driven strategy development; support systems for programs/personnel; curriculum design/implementation; and staff professional development in literacy.

CI 533. Language and Literacy Policy. 4 hours.
Introduction to key issues and policies related to language and literacy instruction, particularly in schools and with linguistically and culturally diverse students. Examination of major historical movements and policies at the national, state, and local level.

CI 534. Languages and Literacies In and Out of School. 4 hours.
Theoretical foundations of languages, literacies, and learning within, across, and outside the boundaries of classrooms and schools. Considers contexts such as online spaces, homes, community centers, workplaces, and after-school programs.

CI 535. Studies in Literacy Research and Teacher Inquiry. 4 hours.
Analysis of methodologies and topics of reading research; decision-making processes for effective literacy instruction based on research; skills and strategies in designing teacher inquiry.

CI 536. Colloquium on Literacy. 1 hour.
Various areas of reading, writing, and literacy including research on learning, instruction, and use. Course Information: Satisfactory/Unsatisfactory grading only. May be repeated to a maximum of 12 hours. Prerequisite(s): Enrollment in a graduate specialization in reading, and consent of the instructor.

CI 537. Literacy Instruction that Raises Achievement for All Students. 4 hours.
Study of/practicum in reading and writing instructional strategies, P-12. Addresses interventions/programs for students with literacy difficulties. Children/youth with such difficulties are assessed and taught in course practicum component. Course Information: Field work required. Prerequisite(s): Consent of the instructor. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Clinical Practice.

CI 538. Assessing Language and Literacy for Instruction. 4 hours.
Study of and practicum in P-12 literacy assessment and its relation to instruction. Involves conducting and interpreting specific formal and informal literacy/language assessments and drawing implications for individualized and group instruction. Course Information: Field work required. Prerequisite(s): CI 523. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

CI 539. Internship in Instructional Leadership. 4 hours.
Conceptualization, development, implementation, analysis, and interpretation of a curriculum and/or instructional improvement in an educational setting (supervised by university faculty and leadership from the setting). Course Information: May be repeated to a maximum of 8 hours. Prerequisite(s): CI 532. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

CI 540. Linguistics for Teachers. 4 hours.
Introduction to linguistic concepts as they apply to teaching in a variety of contexts monolingual and bilingual classrooms. This course is designed to provide teachers with a meta-linguistic awareness in order to facilitate learning and instruction. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

CI 541. Oral Language: Its Development and Role in the Classroom. 4 hours.
Analysis of oral language acquisition and children's varying patterns of language use; study of language development for multilingual learners; analysis of classroom talk and instructional decision-making to assess and optimize student learning. Course Information: Restricted to graduate students in education, psychology, or English.

CI 542. Improving School/District Literacy Achievement. 4 hours.
Review of research on school/factors implicated in improvement of literacy achievement. Role of empirical evidence (best practices, scientifically based research, research synthesis, beat the odds studies) in school decision making and policy. Course Information: Prerequisite(s): CI 450 and CI 503 and CI 504.

CI 543. Language and Literacy Policy. 4 hours.
Introduction to key issues and policies related to language and literacy instruction, particularly in schools and with linguistically and culturally diverse students. Examination of major historical movements and policies at the national, state, and local level.

CI 544. Languages and Literacies In and Out of School. 4 hours.
Theoretical foundations of languages, literacies, and learning within, across, and outside the boundaries of classrooms and schools. Considers contexts such as online spaces, homes, community centers, workplaces, and after-school programs.

CI 545. Educational Evaluation. 4 hours.
Examination of theoretical and operational assumptions of alternative evaluation models; analysis and critique of evaluation case-studies. Course Information: Prerequisite(s): Admission to Ph.D. in Education program.

CI 546. Leading Improvement of Literacy Learning. 4 hours.
Leadership development to promote effective reading and writing instruction across the curriculum with particular attention paid to effective organizational and instructional strategies for PreK-12 students. Course Information: Same as EDPS 548. Prerequisite(s): Consent of the instructor.

CI 547. Critical Pedagogy: Practice and Theory. 4 hours.
Examine theory and practice of social justice teaching in schools, including: history liberatory pedagogies, culturally relevant and critical pedagogies, funds of knowledge, critical multiculturalism and anti-racist pedagogy, critical race theory. Course Information: Same as EDPS 549. Prerequisite(s): Consent of the instructor.

CI 548. Conflicts in Curriculum. 4 hours.
Analysis of theoretical models for curriculum development, special attention to alternative, and often conflicting viewpoints about the particulars of the development process. Course Information: Prerequisite(s): Admission to a graduate program in education.

CI 549. Research in Science Contexts. 4 hours.
Introduction to practitioner research as a valid form of research, a change agent process, and lifelong professional development. Students examine practitioner research literature and methodologies and conduct their own study in science education. Course Information: Recommended background: An interest in science education and science-related field context in which to do practitioner research.
CI 552. Curriculum and Cultural Context. 4 hours.
Influence of cultural, political, sociological, and economic factors on curriculum, at the instructional, institutional, societal, and ideological levels. Course Information: Prerequisite(s): CI 574 or consent of instructor.

CI 553. History of Curriculum Thought. 4 hours.
Analysis of selected documents on curriculum theory and policy from antiquity to present; secondary treatments and primary sources; interaction of theory and practice. Course Information: Prerequisite(s): CI 574 or consent of the instructor.

CI 556. Proseminar in Literacy, Language and Culture. 4 hours.
Socialization of students into field through intensive introduction to literacy, its relationship to language and culture, using the collective knowledge and research experience of faculty. Emphases on developing student inquiry in urban contexts. Course Information: Restricted to first year doctoral students with a specialization in Literacy, Language, and Culture.

CI 557. Proseminar in Literacy, Language, and Culture. 4 hours.
Socialization of students into field through intensive introduction to literacy, its relationship to language and culture, using the collective knowledge and research experience of faculty. Emphases on developing student inquiry in urban contexts. Course Information: Restricted to first year doctoral students with a specialization in Literacy, Language, and Culture.

CI 559. The Social and Cultural Contexts of Literacy and Literacy Instruction. 4 hours.
Critical examination of theoretical and methodological orientations that inform the study of socio-cultural influences on the definition and practices of literacy in classrooms, at school level, and in out of school contexts. Course Information: Prerequisite(s): Consent of the instructor.

CI 562. Design and Conduct of Literacy Research. 4 hours.
Design principles for the study of literacy development and education. Emphasis is on examining lines of literacy research from multiple design perspectives; relationship between research design and theory and epistemology. Course Information: Field work required. Computer use required. Prerequisite(s): Consent of the instructor. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

CI 563. Analysis of Research in Literacy. 4 hours.
Critical analyses of literacy-related research methods, their implications for interpreting research, the forms in which research is published; manuscript review process, and ethical considerations that inform all of the above. Course Information: Prerequisite(s): CI 581 or CI 586; and consent of the instructor.

CI 564. Design and Conduct of Literacy Research. 4 hours.
Introduction to design principles informing the study of literacy development and education. Emphasis on conducting literacy research from multiple design perspectives; and the relationship between epistemology, theory, and research design. Course Information: Prerequisite(s): ED 502 and ED 503 and CI 563. Priority in enrollment will be given to students admitted into Literacy, Language, and Culture doctoral program.

CI 566. Research on Science Curriculum. 4 hours.
Examines issues related to K-12 science curriculum in school classrooms and how they are related to teaching and learning science. Course Information: Prerequisite(s): Graduate standing and admission to the Math & Science Education concentration or consent of the instructor.

CI 567. Research on Science Teaching and Teacher Education. 4 hours.
Examines issues related to teaching science in and out of schools and to the preparation and development of teachers of science. Course Information: Prerequisite(s): Graduate standing and admission to the Math & Science Education concentration or consent of the instructor.

CI 568. Research in Children’s and Adolescent Literature. 4 hours.
Topical seminar that examines research on a specific area of children’s or adolescent literature such as multicultural literature, picture books, nonfiction texts, or the development of literacy understanding in children/adolescents. Course Information: May be repeated to a maximum of 8 hours. Prerequisite(s): Consent of the instructor and an undergraduate or master’s level survey course on children’s/adolescent literature.

CI 570. Research on Science Learning. 4 hours.
Examines science learning especially of diverse learners in formal and informal settings. Course Information: Prerequisite(s): Admission to the Math and Science Education concentration or to the M.Ed. in Instructional Leadership? Strand B or consent of the instructor.

CI 571. Integrating Mathematics, Science, and ESL. 4 hours.
Curriculum and instructional issues and practice related to the integration of mathematics, science, and English as a Second Language development. Course Information: Prerequisite(s): CI 481 or consent of the instructor.

CI 572. Contemporary Approaches to Mathematics and Science Assessment. 4 hours.
Theory, research, practice and policy related to the assessment of student learning in mathematics and science and how such assessment can be designed to support teaching and learning in these disciplines. Course Information: Prerequisite(s): Admission to the Ph.D. in Mathematics and Science Education and graduate standing; or consent of the instructor.

CI 573. Multimodality, Multiliteracies, and Science and Mathematics Education. 4 hours.
Examines how different forms of communication influence learning and teaching of science and mathematics in formal and informal settings. Course Information: Prerequisite(s): Admission to the Math and Science Education concentration or to the M.Ed. in Instructional Leadership? Strand B; or consent of the instructor.

CI 574. Foundations of Curriculum Studies. 4 hours.
Curriculum as area of inquiry; historical, philosophical, cultural, and related foundations; variations on curriculum theory and practice; alternative paradigms of curriculum inquiry. Course Information: Prerequisite(s): ED 430 or admission to the Ph.D. in Education program or the Ph.D. in Public Policy Analysis program.

CI 575. Seminar in Research Issues with English Language Learners. 4 hours.
Selected topics on research in the education of language minority students for advanced M.Ed. and Ph.D. students. Topics vary each semester. Course Information: May be repeated to a maximum of 12 hours. Prerequisite(s): CI 481.

CI 577. Literacy In and Out of School. 4 hours.
Analysis of literacy practices in formal and informal contexts. Focus on community and family contributions to literacy learning; emphasis on consequences of cultural congruity and discontinuity between in and out of school literacy practices. Course Information: Prerequisite(s): Consent of the instructor.
CI 578. Advanced Studies in Qualitative Research Methods. 4 hours.
The dynamics of data collection and analysis, the use of theory and interdisciplinary frameworks, and writing up and presenting original research. Course Information: Prerequisite(s): ED 502.

CI 579. Bi-Literacy: Theory, Research, and Practice. 4 hours.
Theoretical foundations, research paradigms, and issues focusing on bilingual and bi-literacy practices in and between home, school and community contexts. Course Information: Prerequisite(s): Consent of the instructor.

CI 581. Perspectives on Reading: Theory, Research and Practice. 4 hours.
Introduction of doctoral students to perspectives underlying theory, research, and practices related to understanding reading and reading instruction. Study of how research and practice is framed, shaped, and constrained by theoretical perspectives. Course Information: Prerequisite(s): Consent of the instructor.

CI 582. Research Perspectives on Literacy in the Disciplines. 4 hours.
Literacy is an integral part of expertise in the major fields of study. This course reviews the research in literacy and its related constructs in the disciplines of mathematics, science, history, and English. Course Information: Prerequisite(s): Consent of the instructor.

CI 583. Early Literacy: Theory Research and Practice. 4 hours.
Analysis of theories and research focusing on the initial phases of young children's acquisition of reading and writing, with emphasis on issues related to instruction. Course Information: Prerequisite(s): CI 503 and consent of the instructor.

CI 584. Semiotics, Literacy, and Learning. 4 hours.
Theory and research focusing on language and literacy as they relate to other embodied forms of meaning-making; how these varied meanings are socially and culturally mediated; the ways in which they enable and constrain processes of learning. Course Information: Prerequisite(s): CI 503 and consent of the instructor.

CI 585. Seminar in Literacy Studies. 4 hours.
Selected topics in literacy theory, research and practice for advanced Ph.D. students. Topics vary each semester. Course Information: May be repeated to a maximum of 12 hours. Prerequisite(s): CI 563 or the equivalent or consent of instructor.

CI 586. Perspectives on Writing Instruction: Theory, Research, and Practice. 4 hours.
An examination of research and theoretical perspectives on writing and multimodal text construction including critical reflection on perspectives that have contributed to changes in the ways we view texts, writing, writers, and instruction. Course Information: Prerequisite(s): CI 544; and consent of the instructor. Priority in enrollment will be given to students admitted into Literacy, Language, and Culture doctoral program.

CI 587. Literacy Assessment: Theory, Research, and Practice. 4 hours.
Theory and practice in literacy assessment. Measurement issues unique to literacy assessment, including word recognition, vocabulary, comprehension and writing. Critical consideration of how assessment both enables and constrains instruction. Course Information: Prerequisite(s): CI 503 and consent of the instructor.

CI 589. Literacy and Learning Technologies: Theory, Research and Practice. 4 hours.
Critical analyses of how technologically based, multimedia transform instruction with a focus on the design of strategies to enhance written, visual and oral literacies using linear and non linear software and online environments. Course Information: Prerequisite(s): Consent of the instructor.

CI 590. Alternative Paradigms of Qualitative Research in Education. 4 hours.
Methodology, cases, and rationale for action research, educational criticism, critical ethnography, historiography, and phenomenological hermeneutics as alternatives in qualitative research in education. Course Information: Prerequisite(s): CI 578 or consent of instructor; and admission to Ph.D. in Education program or Ph.D. in Public Policy Analysis program.

CI 592. Apprenticeship in Teacher Education. 1-4 hours.
Faculty guidance and supervision of doctoral students' teaching experience related to curriculum and instruction. Variable credit (1-4 hrs) given based upon scope of students' teaching responsibilities, and proposed reflection on them. Course Information: Prerequisite(s): Consent of the instructor and program coordinator.

CI 593. Ph.D. Research Project. 1-8 hours.
Students design, implement, and analyze results of a research problem in this area of specialization. Completed study is reviewed by faculty. Course Information: May be repeated to a maximum of 8 hours. Prerequisite(s): Admission to the Ph.D. in Education program.

CI 594. Special Topics in Curriculum and Instruction. 2-4 hours.
Seminar on a preannounced topic focusing on methodology, research and educational implications of recent models of learning, problem solving and thinking. Course Information: May be repeated to a maximum of 12 hours. Students may register in more than one section per term. Prerequisite(s): Consent of instructor.

CI 596. Independent Study. 1-4 hours.
Students design, implement and analyze the results of a research problem in this area of specialization. Course Information: May be repeated to a maximum of 12 hours. Students may register in more than one section per term. Prerequisite(s): Consent of study adviser.

CI 599. Thesis Research. 0-16 hours.
Research on the topic of the student's dissertation. Course Information: Satisfactory/Unsatisfactory grading only. May be repeated. Students may register in more than one section per term. Prerequisite(s): Consent of the dissertation advisor.

Educational Policy Studies

EDPS 412. Politics of Urban Education. 3 or 4 hours.
Relations between school governance and politics. The role of educational interest groups, school boards, professional educators, and citizens in formulation and execution of educational policy. Course Information: 3 undergraduate hours. 4 graduate hours. Prerequisite(s): Consent of the instructor.

EDPS 415. Current Controversies in Urban Higher Education. 3 or 4 hours.
Examines critical issues in urban higher education such as academic freedom, free speech, college affordability, alcohol/drugs, and student mental health, as well as the legal consequences of these and other issues. Course Information: 3 undergraduate hours. 4 graduate hours. Prerequisite(s): Junior standing or above.
EDPS 449. Early Childhood /Early Childhood Special Ed: Perspectives, Policies and History. 3 hours.
Perspectives, policies, history, and foundations of Early Childhood Education and Early Childhood Special Education. Emphasis on the effects of changing economic, political, legal, social, and views of human development. Course Information: Same as EPSY 449 and SPED 449.

EDPS 453. Topics in Educational Policy Studies. 3 or 4 hours.
Topics are announced at the time the class is scheduled. Course Information: 3 undergraduate hours. 4 graduate hours. May be repeated to a maximum of 12 hours.

EDPS 480. Youth Culture Community Organizing and Education. 4 hours.
Introduction to the tenets of community organizing in partnership with contemporary interpretations of youth culture as a means to interpret urban public education. Course Information: Prerequisite(s): Graduate standing; or consent of the instructor. Recommended background: Experience with working with youth in K-12 classrooms, community organizations, community centers, and faith-based groups.

EDPS 500. City Schools: Education in the Urban Environment. 4 hours.
Cross-disciplinary, critical analysis of relationships between public schools and school districts and their urban environments, with attention to implications for school improvement. Course Information: Prerequisite(s): Consent of the instructor.

EDPS 501. Education Finance and Budgeting. 4 hours.
Role of government, school boards, and community in funding education. Principles of school and district financial planning, management, and analysis. Equity issues in school finance. Course Information: Prerequisite(s): Consent of the instructor.

EDPS 502. Advanced Foundational Studies in Philosophy of Education. 4 hours.
Advanced investigation of historical and emergent themes in philosophy of education, with specific attention to competing perspectives on human nature and knowing, methods of philosophic inquiry, and the nexus of democratic and educational theory. Course Information: Prerequisite(s): Enrollment in a doctoral program or consent of the instructor. Recommended background: ED 402.

EDPS 503. History and Historiography in Education. 4 hours.
An advanced critical analysis of the history of education in the United States, with specific attention to competing historical perspectives, historical methods of investigation, and the educational histories of different population groups.

EDPS 505. Social Theory in Educational Foundations. 4 hours.
Investigates competing theoretical perspectives in the social foundations of education, addressing the evolution of social and educational theory. Course Information: Prerequisite(s): Enrollment in a doctoral program or consent of the instructor.

EDPS 510. Introduction to Doctoral Education in Policy Studies. 4 hours.
Required doctoral seminar taken in the first year of doctoral study. It introduces students to doctoral education, theoretical perspectives and research problems in both concentrations of the Ph.D. program, Policy Studies in Urban Education. Course Information: Satisfactory/Unsatisfactory grading only. Prerequisite(s): Admission to the Ph.D. in Policy Studies in Urban Education program or consent of the instructor.

EDPS 511. Introduction to Academic Writing in Educational Policy Studies. 2 hours.
Assesses the academic writing skills of PhD students and introduces them to the various genres of writing they will be doing while completing coursework on the way to their dissertation. Course Information: Satisfactory/Unsatisfactory grading only. Admission to the Ph.D. in Policy Studies in Urban Education program or consent of the instructor.

EDPS 512. Data and Interpretation in Educational Policy Studies. 4 hours.
Methodology course providing students with basic understanding and skills in assessing, interpreting and representing quantitative and qualitative evidence in educational policy studies research. Students study research design and critique. Course Information: Prerequisite(s): ED 500 and enrollment in the Ph.D. in Policy Studies in Urban Education program or consent of the instructor.

EDPS 515. Urban Higher Education Organization and Context. 4 hours.
Study of historical and philosophical foundations as context for contemporary urban higher education. Examination of external influences (social, political, economic, technological, legal, and international) on urban higher education organizations. Prerequisites(s): Admission to MEd in Urban Higher Education or consent of instructor.

EDPS 517. Administration and Governance of Urban Higher Education. 4 hours.
Investigation of structures of governance and administration in urban higher education. Examination of urban colleges and universities as complex organizations, and analysis of theories of leadership, advocacy, and change in urban higher education. Prerequisite(s): Admission to MEd in Urban Higher Education OR consent of instructor.

EDPS 518. Students, Diversity, Equity, and Access in Urban Higher Education. 4 hours.
Exploration of issues related to diversity in urban higher education, equity, and student access and opportunity. Attention to race and ethnicity, gender, socioeconomic class, disability & exceptionality, sexuality, sexual orientation & religion. Prerequisite(s): Admission to MEd in Urban Higher Education OR consent of instructor.

EDPS 519. Student Transitions to College. 4 hours.
Analysis of student expectations and preparation for college and an examination of how students make the transition to college, structures and initiatives that can support that transition, impediments to entering and succeeding in college. Prerequisite(s): Admission to MEd in Urban Higher Education OR consent of instructor.

EDPS 520. The City as Campus: Community Engagement and Interaction. 4 hours.
Critical analysis of relationships between urban universities and colleges and their environments and communities, with attention to implications for students, faculty, staff, and administrators. Prerequisite(s): Admission to the MEd in Urban Higher Education or consent of instructor.

EDPS 529. Internship in Urban Higher Ed. 1-4 hours.
Provides on-site coaching, mentoring and classwork to support students’ understanding of urban higher education and its challenges and opportunities. Facilities integration of coursework and understanding of leadership and change in higher education. Course Information: May be repeated for a maximum of 8 hours. Prerequisite(s): Admission to MEd in Urban Higher Education OR consent of instructor.
EDPS 530. Seminar, Urban Higher Education in the 21st Century: Ideas and Opportunities. 4 hours.
Capstone course that brings together prior coursework supporting the academic and professional objectives of each student. Students will demonstrate mastery of content and program learning objectives through a culminating project. Prerequisite(s): EDPS 515 and EDPS 517 and EPSY 516 and EDPS 518; admission to the MEd in Urban Higher Education OR consent of Instructor.

EDPS 535. Human Development for School Leaders. 4 hours.
Deepens school leaders' understanding of human development across the lifespan, from birth to adult learning in schools; includes attention to differentiated instruction, SpEd inclusion, and ELL learners in all age groups. Course Information: Same as EPSY 535. Prerequisite(s): Consent of the instructor.

EDPS 543. The Criminalization of Youth in Urban Schools. 4 hours.
Using contemporary social theory, this course investigates the disciplining, punishing, and criminalization of youth in urban schools, paying particular attention to the racialized, classed, gendered, and ableist contours of these social processes. Course Information: Prerequisite(s): Consent of the instructor.

EDPS 544. Research Design in Educational Policy Studies. 4 hours.
Alternative research design models and evaluation methodologies; quantitative and qualitative approaches: ethnography; historiography; experimentation and quasi-experimentation; institutional and practitioner research designs and methods. Course Information: Prerequisite(s): Consent of the instructor or admission to the Ph.D. in Policy Studies in Urban Education, or the Ed.D. in Urban School Leadership.

EDPS 548. Leading Improvement of Literacy Learning. 4 hours.
Leadership development to promote effective reading and writing instruction across the curriculum with particular attention paid to effective organizational and instructional strategies for PreK-12 students. Course Information: Same as CI 548. Prerequisite(s): Consent of the instructor.

EDPS 549. Critical Pedagogy: Practice and Theory. 4 hours.
Examine theory and practice of social justice teaching in schools, including: history liberatory pedagogies, culturally relevant and critical pedagogies, funds of knowledge, critical multiculturalism and anti-racist pedagogy, critical race theory. Course Information: Same as CI 549. Prerequisite(s): Consent of the instructor.

EDPS 550. Improving Education Organizations. 4 hours.
Introduction to theories, processes and leadership of organizational change in education. Particular emphasis is placed on alternative approaches to organizational change in schools, such as "turnaround" change and continuous improvement. Course Information: Prerequisite(s): Consent of the instructor.

EDPS 551. Cycles of Inquiry for Improving Schools. 4 hours.
Introduces an integrated model of school assessment practices that bridges the gap between internal and external assessment; introduces descriptive statistics, data representation and cycles of inquiry as core drivers of continuous improvement. Course Information: Extensive computer use required. Prerequisite(s): Consent of the instructor.

EDPS 552. Leading Urban Schools. 4 hours.
Describes the deep structure of conventional and transformational approaches to the principal's role in improving school leadership. Course Information: Prerequisite(s): Consent of the instructor.

EDPS 553. Leading Urban School Systems. 4 hours.
Leadership and management responsibilities of system-level administrators in urban school districts. Theory and research on system level leadership using case study analysis and field work with system administrators. Course Information: Prerequisite(s): Consent of the instructor.

EDPS 555. Political Economy of Urban Education. 4 hours.
Politics of urban school policy and practice. Interest groups, school boards, educators, citizens, and governments as political actors. Educational leadership in political context. Course Information: Prerequisite(s): Consent of the instructor.

EDPS 556. Leading Classroom Diagnostics and Interventions. 4 hours.
Instructional improvement role of educational leaders of urban schools. Human resource development, parent/community support, supportive organizational contexts. Strategic planning, implementation, and evaluation. Course Information: Prerequisite(s): Consent of the instructor.

EDPS 557. Developing Organizational and Leadership Capacity. 4 hours.
Assessment and development of organizational and leadership capacity in urban schools. Human resource development, parent/community support, supportive organizational contexts. Strategic planning, implementation, and evaluation. Course Information: Prerequisite(s): Consent of the instructor.

EDPS 558. Leading Improvement of Mathematics Learning. 4 hours.
Leadership understandings that promote high quality mathematics instruction with particular attention to student and adult learning for early childhood, intermediate, middle school and high school levels. Course Information: Prerequisite(s): Consent of the instructor.

EDPS 559. Internship in Education Leadership. 4 hours.
Provides on-site coaching, mentoring and classwork to support students' entry into Ed.D. residency, facilitates integration of coursework and leadership practices, and intensifies leadership learning throughout the year. Course Information: 4 hours. May be repeated to a maximum of 8 hours. Extensive computer use required. Prerequisite(s): Consent of the instructor. Class Schedule Information: To be properly registered, students must enroll in one Conference and one Practice.

EDPS 563. Politics of Gender, Sexuality, and Education. 4 hours.
Cross-disciplinary examination of issues related to gender, sexuality, and sexual orientation in education, with critical attention paid to educational policy and practice. Course Information: Same as GWS 563. Prerequisite(s): Consent of the instructor.

EDPS 565. Globalization and Education. 4 hours.
Examines implications of global economic, political, and cultural processes for educational policies and practices at local and national levels. Course Information: Prerequisite(s): Graduate standing; and consent of the instructor.

EDPS 566. Cultural Studies in Education. 4 hours.
Examines origins, evolution, and current frameworks of cultural studies, with a focus on educational policy and practice. Course Information: Prerequisite(s): Consent of the instructor.

EDPS 567. Economics of Education. 4 hours.
Introduction to the economics of education. Relates education and income, studies and conditions for efficient production of education, teacher markets and school finance. Course Information: Prerequisite(s): Consent of the instructor.
EDPS 568. Education and the Law. 4 hours.
Legal rights, responsibilities, and authority of students, parents, teachers, administrators, boards, and government units in relation to schools. Legal issues in education policy and practice. Course Information: Prerequisite(s): Consent of the instructor.

EDPS 570. Historical and Philosophical Analysis of Education Policy. 4 hours.
Historical and philosophical research methodology in the study of educational policy. Course Information: Prerequisite(s): Consent of the instructor.

EDPS 571. The Education Policy Process. 4 hours.
Influences on the processes of educational policy making, adoption and implementation, with a focus on the school leader's role. Course Information: Prerequisite(s): Consent of the instructor.

EDPS 572. Sociology of Education. 4 hours.
Education as a social institution in interaction with other institutions, such as the economy. Topics include the emergence of national systems of education, purposes of education, inequality and educational reform. Course Information: Same as SOC 572. Prerequisite(s): Consent of the instructor.

EDPS 573. Seminar in Education Leadership Practice. 4 hours.
Budget and finance, strategic planning and decision making, communication, use of data and technology, parent/community relations, student support services. Different sections will focus on school-level and system-level administration. Course Information: May be repeated. 4 hours is required for the Illinois Type 75 certificate. Additional hours may be needed for students to satisfy local school system administrator certification requirements (such as Chicago Public School's 1019 requirement). Prerequisite(s): Admission to the Ed.D. in Urban Educational Leadership program and consent of the instructor. Requires concurrent registration in EDPS 559.

EDPS 578. Political Theory and Education Policy. 4 hours.
Theoretical perspectives on the role of politics in the development of educational policy at the federal, state and local levels. Course Information: Prerequisite(s): Consent of the instructor.

EDPS 579. Organization Theory in Education. 4 hours.
Organizational effectiveness and organizational improvement in education. Multi-disciplinary and historical perspectives and their application to understanding the nature and function of educational organizations. Course Information: Prerequisite(s): Consent of the instructor.

EDPS 581. Collective Bargaining in Education. 4 hours.
Role of collective bargaining in governance, function, and improvement of school systems. Models and processes of negotiation, engagement, and conflict resolution. Course Information: Prerequisite(s): Consent of the instructor.

EDPS 582. Cultural Pluralism and Education Policy. 4 hours.
Social philosophical analysis of the theory of cultural pluralism, its relation to the liberal-experimentalist tradition in educational thought; selected equal educational opportunity policies; recent federal and state legislation on multicultural education. Course Information: Prerequisite(s): Consent of the instructor.

EDPS 583. Women in Education. 4 hours.
An overview of girls' and women's educational experiences and placement within the academic structure (as students, professionals and intellectuals). The impact of gender on the realization of educational, economic and social opportunities. Course Information: Same as GWS 583. Prerequisite(s): Consent of the instructor or enrollment in the Ph.D. in Policy Studies in Urban Education program.

EDPS 586. Practitioner Inquiry for School Leaders. 4 hours.
Development and application of systems and protocols that support progressive cycles of formative assessment and institutional problem-solving; leadership development strategies for taking these systems to scale. Course Information: May be repeated to a maximum of 8 hours. Extensive computer use required. Prerequisite(s): Consent of the instructor.

EDPS 587. Methods of Case Study Research. 4 hours.
Study and practice in documentary and field research methods of collecting, organizing and integrating educational data for case study. Includes attention to interviewing, observation, ethnography, and historiography. Course Information: May be repeated to a maximum of 8 hours. Students may register in more than one section per term. Prerequisite(s): Consent of the instructor. Class Schedule Information: To be properly registered, students must enroll in one Conference and one Practice.

EDPS 588. Critical Race Theory: Race and Racism in Education. 4 hours.
Examines theories of race and racism in education within the interdisciplinary construct of Critical Race Theory. Course Information: Prerequisite(s): Consent of the instructor.

EDPS 589. Administrative and Leadership Theory in Education. 4 hours.
Introduction to administrative and leadership theory, focusing particularly on issues of leadership and administration in organization context. Applies theory to understanding the effectiveness of leaders and leadership and to contemporary problems. Course Information: Prerequisite(s): Consent of the instructor.

EDPS 591. Professional Capstone Inquiry. 1-8 hours.
Students design, implement, and analyze results of a research problem in this area of specialization. Completed study is reviewed by faculty. Course Information: Satisfactory/Unsatisfactory grading only. May be repeated to a maximum of 12 hours. Prerequisite(s): Consent of student's doctoral advisor.

EDPS 592. Professional Career Training in Education Policy Studies. 1-4 hours.
Faculty supervised training through university teaching, research or field-based practice. Course Information: May be repeated to a maximum of 20 hours. Prerequisite(s): Consent of the instructor and approval of the Department Chairperson.

EDPS 593. Doctoral Research Project. 1-8 hours.
Students design, implement, and analyze results of a research problem in this area of specialization. Completed study is reviewed by faculty. Course Information: May be repeated to a maximum of 8 hours. Prerequisite(s): Consent of the instructor.

EDPS 594. Special Topics in Educational Policy. 4 hours.
Exploration of an area not covered in existing course offerings. Topics vary. Course Information: May be repeated to a maximum of 12 hours. Students may register in more than one section per term. Prerequisite(s): Consent of the instructor.
EDPS 596. Independent Study in Educational Policy Studies. 1-4 hours.
Students carry out independent study in Educational Policy Studies under the direction of a faculty member. Course Information: May be repeated to a maximum of 12 hours. Students may register in more than one section per term. Prerequisite(s): Consent of the advisor and the Department Chairperson.

Research on the topic of the student's dissertation. Course Information: Satisfactory/Unsatisfactory grading only. May be repeated. Students may register in more than one section per term. Prerequisite(s): Consent of the dissertation advisor.

Education

ED 402. Philosophy of Education and Urban School Policy. 3 hours.
Selected social and education philosophies and their impact on urban school curriculum design, school organization and control.

ED 403. Policy Issues in the History of American Education. 3 hours.
Political, economic, and cultural influences shaping the development of American education policy; emphasis on issues of education theory and practice in their historical settings.

ED 416. Practical Inquiry I: Teacher Competencies and Performance-Based Assessment. 3 hours.
Introduction to examining teaching through practitioner inquiry, including teacher performance assessment, as a way of learning to teach and beginning a lifelong process of professional development.

ED 417. Practical Inquiry II: Teacher Competencies and Performance-Based Assessment. 3 hours.
A developing examination of teaching through practitioner inquiry, including teacher performance teacher assessment, as a way of learning to teach and fostering a lifelong process of professional development.

ED 421. Advanced Educational Psychology. 3 hours.
Examines current theory and research on the teaching-learning process with particular attention to general learning and curriculum-relevant problem solving skills. Course Information: Prerequisite(s): EPSY 210; or graduate standing.

ED 422. Advanced Developmental Psychology and Educational Processes. 3 hours.
Focuses on cognitive and social development from birth to early adolescence. Examines relations between development, learning, and educational processes. Course Information: Same as PSCH 422. Prerequisite(s): PSCH 100 and any one from EPSY 210, PSCH 259, PSCH 320 and consent of the instructor; or graduate standing.

ED 424. Social and Emotional Learning: Research, Practice, and Policy. 3 or 4 hours.
Research, theory, educational practices, and federal/state policies that promote the social, emotional, and academic competence of students who are in preschool, middle school, or high school. Course Information: Same as PSCH 424. 3 undergraduate hours. 4 graduate hours. Prerequisite(s): PSCH 343 or equivalent; or consent of the instructor. Recommended background: Experience working with children or adolescents.

ED 425. Curriculum, Instruction, and Assessment in the Urban Secondary Classroom. 4 hours.
Developing professional practice that meets the diverse learning needs of students from different backgrounds and experiences. Course Information: Previously listed as ED 330. Field experience in urban schools is required. Prerequisite(s): Admission to an approved teacher licensure program in secondary education, and ED 200, ED 210 and SPED 410, and consent of the instructor and Council of Teacher Education. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

ED 430. Curriculum and Teaching. 3 hours.
Introduction to curriculum and teaching as areas of inquiry; implications of these areas of inquiry for educational practice; related contemporary problems and issues. Course Information: Credit is not given for ED 430 if the student has credit for CI 428. Prerequisite(s): Admission to graduate study in Education, or consent of the instructor.

ED 431. Improving Learning Environments. 3 hours.
Analysis of structural, normative, and social dimensions of learning environments and their relationships to student learning. Exploration of change processes to improve these environments. Course Information: Prerequisite(s): Graduate standing or consent of the instructor.

ED 432. Instruction and Assessment in the Urban Secondary Classroom. 5 hours.
Learning to teach, how to plan for diverse learners, design differentiated instruction, assess student learning and develop classroom discipline. Course Information: Field experience in urban schools is required. Prerequisite(s): Completion of education core courses in Graduate Teacher Certification Program: Ed 402 or Ed 403 and Ed 445. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

ED 445. Adolescence and the Schools. 3 hours.
Physiological, intellectual, and social development of adolescence. Relations between aspects of adolescent development and the academic and social demands of secondary schools. Course Information: Prerequisite(s): EPSY 210, or the equivalent, or graduate standing.

ED 450. Pre-Student Teaching in the Urban Elementary Classroom, Fieldwork III: Arts, Health, and Physical Ed. 1-12 hours.
This pre-student teaching experience immerses teacher candidates in classrooms in a supervised experience of learning to teach; and develop effective practices with an emphasis in arts, health and physical education. Course Information: May be repeated. Field work required. Field work: total of 180 hours, coordinated by the program director and in collaboration with field instructors. Prerequisite(s): Senior standing or above and admission to the Bachelor of Arts in Urban Education, Concentration in Elementary Education.

ED 451. Student Teaching in the Urban Elementary Classroom: Fieldwork IV. 0-12 hours.
Student teaching is a full-time experience of learning to teach in a classroom with university mentoring and supervision. Course Information: May be repeated. Field work required. Prerequisite(s): ED 450 and admission to the Bachelor of Arts in Urban Education, Concentration in Elementary Education and senior standing. Class Schedule Information: To be properly registered, students must enroll in one Discussion and one Practice.
ED 461. Political and Socio-Cultural Perspectives on Special Education. 3 hours.
Students will examine issues of access and equity through legislation, litigation, and socio-cultural perspectives and be introduced to major theoretical frameworks that influence special education programs. Course Information: Same as SPED 461. Field work required. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

ED 470. Educational Practice with Seminar I. 0-12 hours.
The first half of a two-segment sequence of practice teaching, including seminar, to meet certification requirements for teaching in grades six through twelve. Course Information: Graduate credit only with approval of the college. 1 to 12 hours. Prerequisite(s): Good academic standing in a teacher education program, completion of 100 clock hours of pre-student-teaching field experiences, and approval of the college or department of specialization. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

ED 471. Educational Practice with Seminar II. 0-12 hours.
The second half of a two-segment sequence of practice teaching, including seminar, to meet certification requirements for teaching in grades six through twelve. Course Information: Graduate credit only with approval of the college. 1 to 12 hours. Prerequisite(s): Good academic standing in a teacher education program, completion of 100 clock hours of pre-student-teaching field experiences, credit or concurrent registration in ED 470, and approval of the college or department of specialization. Class Schedule Information: To be properly registered, students must enroll in one Conference and one Practice.

ED 472. Promoting Academic and Prosocial Behavior I. 3 hours.
The importance of school-wide and classroom structure and climate in the educational process. Strategies to promote academic success and desired social behavior. Course Information: Same as SPED 472. Field work required. Prerequisite(s): SPED 461 or ED 461 or the equivalent or consent of the instructor.

ED 473. Teaching Math and Science with Adaptations. 3 hours.
Provides prospective teachers with assessment strategies and a range of adaptations, modifications, and interventions in math and science for students with disabilities. Course Information: Same as SPED 473. Field work required. Prerequisite(s): SPED 461. Course Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

ED 500. Philosophical Foundations of Educational Inquiry. 4 hours.
Philosophical foundations of various forms of educational inquiry. Epistemological and ethical dimensions of different research approaches. Course Information: Prerequisite(s): Admission to the Ph.D. in Education program or consent of the instructor.

ED 501. Data and Interpretation in Educational Inquiry. 4 hours.
Data, interpretation, reliability, validity, accuracy, stability, and generalizability from different methodological perspectives; how research design, data collection, and interpretation vary with different philosophical approaches. Course Information: Prerequisite(s): Admission to the Ph.D. in Education program or consent of the instructor.

ED 502. Essentials of Qualitative Inquiry in Education. 4 hours.
Surveys methods for conceptualizing, gathering, managing, and interpreting qualitative data. Various ethnographic, historical, and narrative forms of inquiry are reviewed, as are the corresponding methods associated with each. Course Information: Extensive computer use required. Field work required. Prerequisite(s): Admission to the Ph.D. in Education program or consent of the instructor.

ED 503. Essentials of Quantitative Inquiry in Education. 4 hours.
Introduces theory and assumptions behind parametric statistics. Also provides hands-on experience in conducting basic quantitative research (t-test, correlation, regression, analysis of variance). Course Information: Same as EPSY 503. Prerequisite(s): Admission to the Ph.D. in Education program or consent of the instructor.

ED 504. Urban Contexts and Educational Research. 4 hours.
A multidisciplinary approach for understanding research on learners and learning, schools and schooling, families, and communities in urban contexts. Course Information: Extensive computer use required. Prerequisite(s): Admission to one of the PhD programs in the College of Education or consent of the instructor.

ED 505. Introduction to Educational Research: Paradigms and Processes. 4 hours.
Offers a survey introduction to the history, contexts, paradigms and orientations, ethics, and processes of educational research. Course Information: Extensive computer use required. Prerequisite(s): ED 505 and admission to one of the PhD programs in the College of Education or consent of the instructor.

ED 506. Introduction to Educational Research: Designs and Analyses. 4 hours.
Offers researchers an introduction to research in the field of education. It is the second of a two-course sequence and will introduce students to different types of research designs and analyses in the field of education. Course Information: Extensive computer use required. Prerequisite(s): ED 505 and admission to one of the PhD programs in the College of Education or consent of the instructor.

ED 543. Research on Teaching. 4 hours.
Review and analysis of history, paradigms, methods, and findings of research on teaching. Focus on the development of research questions and strategy. Course Information: Prerequisite(s): ED 490 or ED 503 or CIE 578; and consent of the instructor.

ED 580. Colloquium on Diversity in Secondary Education. 2 hours.
Designed to provide candidates with opportunities to interact with experts who deal with various issues of diversity in education, to discuss those issues with their cohorts, and to explore ways of meeting students' diverse needs. Course Information: Satisfactory/Unsatisfactory grading only.

ED 593. Special Topics in Education. 1-4 hours.
Exploration of a topic not covered in existing course offerings. Course Information: May be repeated if topics vary. Students may register in more than one section per term. Prerequisite(s): Consent of the instructor.

ED 596. Independent Study. 1-4 hours.
Students independently study related topics not covered by course, under faculty supervision. Course Information: May be repeated. Students may register in more than one section per term. Prerequisite(s): Consent of the advisor.

Special Education

SPED 410. Exceptional Learners. 3 hours.
Addresses the psychology of, identification of, and methods of instruction for exceptional learners served under all categories recognized by federal law. Course Information: Field work required. 20 hours of field work is required.
SPED 416. Methods of Instruction for Exceptional Learners. 3 hours.
The purpose of this course is to address issues of instruction for individuals with special needs. Topics include effective instructional and accommodative practices and strategies in multiple areas (math, literacy, science, social studies, art). Course Information: Prerequisite(s): Junior standing or above and admission to the Bachelor of Arts in Elementary Education program.

SPED 423. Assessment of Monolingual and LEP Children with Disabilities. 3 hours.
To prepare students in use of formal and informal assessments to inform placement, instructional planning, and evaluation of English Language Learners with disabilities. Course Information: Prerequisite(s): Restricted to students seeking LBSII or admission as a doctoral student or consent of the instructor.

SPED 424. Assessment of Students with Special Needs. 3 or 4 hours.
Theoretical basis and practical application of standardized and alternative testing of children with learning and behavior difficulties. Course Information: 3 undergraduate hours. 4 graduate hours. Prerequisite(s): SPED 410.

SPED 426. Curricular/Behavioral Considerations for Learners with Special Needs. 3 or 4 hours.
Instructional practices related to academics, classroom management, individualized and group instruction for students with special needs. Course Information: 3 undergraduate hours. 4 graduate hours. Prerequisite(s): SPED 424 or the equivalent or consent of the instructor.

SPED 427. Instructional and Behavioral Methods for English Language Learners with Disabilities. 3 hours.
To prepare students in the use of best practice instruction and the promotion of prosocial behavior within the context of teaching English Language Learners with disabilities. Course Information: Prerequisite(s): Open only to Master’s degree students; and consent of the instructor and successful completion of SPED 423 or equivalent. Assumes previous instructional planning for students with disabilities and practices that is part of the certification requirements for the Learning Behavior Specialist I certification; and minimum one year teaching experience or providing direct services to students with disabilities. Recommended background: Illinois State Board of Education certification: Learning Behavior Specialist I; minimum one year teaching experience.

SPED 442. Language Development and Disorders. 3 or 4 hours.
Theory and research on the acquisition of phonology, syntax, semantics and pragmatics in children with and without disabilities. Models for language assessment and intervention. Course Information: 3 undergraduate hours. 4 graduate hours. Prerequisite(s): SPED 410.

SPED 444. Assistive Technology for Literacy, Learning and Participation in Pre-K through High School. 3 hours.
Use of communication systems, computers, adapted equipment and strategies to foster participation and inclusion of students in grades preschool through high school. Course Information: Same as DHD 444.

SPED 448. Topics in Special Education. 1-4 hours.
Course or workshop on preannounced topic on the education of handicapped children, adolescents, or adults. Course Information: May be repeated. Students may register in more than one section per term. Prerequisite(s): SPED 410 and consent of the instructor.

SPED 449. Early Childhood/Early Childhood Special Education: Perspectives, Policies and History. 3 hours.
Perspectives, policies, history, and foundations of Early Childhood Education and Early Childhood Special Education. Emphasis on the effects of changing economic, political, legal, social, and views of human development. Course Information: Same as EPSY 449 and EDPS 449.

SPED 461. Political and Socio-Cultural Perspectives on Special Education. 3 hours.
Students will examine issues of access and equity through legislation, litigation, and socio-cultural perspectives and be introduced to major theoretical frameworks that influence special education programs. Course Information: Same as ED 461. Field work required. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

SPED 462. Assessment of Individuals with Disabilities. 3 hours.
To prepare students in use of standardized and formative assessment to understand student learning, inform decisions regarding placement, instructional planning, and evaluation of students with disabilities.

SPED 463. Literacy Instruction for Diverse Learners in School. 3 hours.
Emphasizes the components of designing, implementing, and assessing reading and writing instruction for diverse students at the early childhood/elementary level. Course Information: Field work required. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

SPED 465. Understanding Students with High Incidence Disabilities. 3 hours.
Uses major theoretical frameworks of human development to examine the characteristics and development of students with high incidence disabilities, ages 3-21. Course Information: Same as EPSY 465. Field work required. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

SPED 466. Language Development, Diversity, and Disabilities. 3 hours.

SPED 467. Understanding Students With Low Incidence Disabilities. 3 hours.
Explores characteristics and development of children and youth with low incidence disabilities, ages 3-21, as well as how schools address their instructional needs. Course Information: Same as EPSY 467.

SPED 471. Curricular Adaptations for Learners with Significant Disabilities. 3 hours.
Provides information on the nature and needs of individuals with severe/profound disabilities and the roles of federal, state, and local education agencies play in providing services to this population. Course Information: Field work required. Prerequisite(s): SPED 461 and SPED 465 and SPED 467. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

SPED 472. Academic and Prosocial Interventions. 3 hours.
Introduces students to the principles and concepts of data-based decision making and individualization with an emphasis on addressing the social, emotional, and behavioral needs of students with disabilities. Course Information: Same as ED 472. Field work required.
SPED 473. Teaching Math and Science with Adaptations. 3 hours.
Provides prospective teachers with assessment strategies and a range of adaptations, modifications, and interventions in math and science for students with disabilities. Course Information: Same as ED 473. Field work required. Prerequisite(s): SPED 461. Course Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

SPED 481. Theoretical Foundations and Issues of Bilingual Special Education. 3 hours.
Theoretical, pedagogical foundations of Bilingual Special Education to provide experienced special educators with research-based knowledge and practices to serve English Language Learners with disabilities. Course Information: Prerequisite(s): Restricted to students seeking LBSII or admission as a doctoral student or consent of the instructor.

SPED 482. Collaborating with Families, Community, and Professionals. 3 hours.
Explores the dynamics of professional collaboration with families, addressing characteristics, structures, and processes of collaboration for children and youth with and without disabilities. Course Information: Same as EPSY 482. Previously listed as SPED 582. Field work required. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

SPED 506. Characteristics and Assessment of Young Children with Disabilities. 4 hours.
Biological and environmental factors in infancy may cause developmental disabilities. Impact of such factors on child development will be reviewed. Appropriate assessment techniques reviewed. Course Information: Field work required.

SPED 508. Methods of Instruction & Assessment of Young Children with Disabilities. 4 hours.
Intervention and assessment methods for infants and young children at-risk for or showing developmental delays. Systems perspective on utilizing family and community to support intervention. Course Information: Field work required. Prerequisite(s): Grade of B or better in SPED 506; or consent of the instructor. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

SPED 509. Educational Implications of Learners with Low-Incidence and Multiple Disabilities. 3 hours.
Development of knowledge and skills to research, synthesize and apply psychological, sociological, and educational issues for students with multiple and low incidence disabilities. Course Information: Previously listed as SPED 513. Prerequisite(s): Restricted to students seeking LBSII or admission as a doctoral student or consent of the instructor.

SPED 510. Advanced Curricular Adaptations for Learners with Significant and Multiple Disabilities. 3 hours.
Development of knowledge and skills to plan and create curriculum, teach and assess instructional delivery for students with significant disabilities. Course Information: Previously listed as SPED 511. In partial fulfillment of LBSII programs for Curriculum Adaptation Specialist, Behavior Intervention Specialist and Multiple Disabilities Specialist. Prerequisite(s): Admission to the LBSII Program or admission as a doctoral student or consent of the instructor.

SPED 512. Curricular and Social Adaptations for Working with Learners with High Incidence Disabilities. 3 hours.
Development and evaluation of differentiated instruction and learning opportunities for students with mild disabilities, including collaborative approaches and attention to families. Course Information: Prerequisite(s): Students seeking LBSII or admission as a doctoral student or consent of the instructor.

SPED 514. Principles of ABA and Experimental Analysis of Behavior. 3 hours.
Development of knowledge and skills to conduct behavioral assessments in school, home, and clinical settings, and to create behavior plans for school and community inclusion. Course Information: Prerequisite(s): For students seeking the LBS II or admission as a doctorate student or consent of the instructor.

SPED 515. Transition Planning and Vocational Programming for Students with Disabilities, Part 1. 3 hours.
Development of knowledge and skills to provide individuals with disabilities-specific skills to enhance successful transitions especially for adolescents and young adults with disabilities. Course Information: Prerequisite(s): For students seeking the LBS II or admission as a doctorate student or consent of the instructor.

SPED 516. Transition Planning and Vocational Programming for Students with Disabilities, Part 2. 3 hours.
Provides teachers of individuals with disabilities with skills to enhance opportunities for successful transitions. Required course for LBSII. Course Information: Prerequisite(s): SPED 515 or consent of the instructor.

SPED 517. Analysis of Behavior in Applied Contexts. 3 hours.
Development of knowledge and skills to create curriculum and instruction for students with serious emotional and behavioral disorders and study school-wide support systems. Course Information: Prerequisite(s): SPED 516 and Admission to the LBSII Program or admission as a doctorate student or consent of the instructor.

SPED 522. Advanced Procedures in Special Educator as Consultant. 3 hours.
Development of knowledge and skills to collaborate and show leadership in educational settings through use of consultation models and current school-wide support models. Course Information: Prerequisite(s): Restricted to students seeking LBSII or admission as a doctoral student or consent of the instructor.

SPED 538. Internship in University Teaching. 4 hours.
Field-based internship in teaching at the university level for students in the PhD Program in Special Education. Course Information: 4 hours. Satisfactory/Unsatisfactory grading only. May be repeated. Students may register in more than one section per term. Field work required. Prerequisite(s): SPED 564 and consent of the instructor. Coursework and experience in special education, as determined by the instructor and enrollment in the PhD in Special Education. Class Schedule Information: To be properly registered, students must enroll in one Lecture and one Practice.

SPED 563. Adolescent Literacy for Diverse Learners. 3 hours.
Emphasizes the components of planning, instructing, and monitoring reading and writing instruction for adolescents with disabilities at the secondary level, as well as preparing adolescents to meet the literacy requirements in the content areas. Course Information: Field work required. Previously listed as SPED 583. Prerequisite(s): SPED 462. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.
SPED 564. Proseminar in Special Education. 4 hours.
Various areas of special education research are reviewed. Topics include areas of faculty research. Course Information: Prerequisite(s): Admission to the Ph.D. in SPED program and consent of the instructor.

SPED 570. Field Internship for Student Teaching. 4 hours.
Field internship that emphasizes the components of planning, differentiating instruction, and assessing students in school-based settings areas. Attention to diverse learners and collaboration with multiple stakeholders is infused. Course Information: Field work required. Previously listed as SPED 577. Prerequisite(s): Approval of the program faculty. Class Schedule Information: To be properly registered, students must enroll in one Discussion and one Practice.

SPED 572. Curriculum and Teaching for Students with Disabilities. 3 hours.
Provides an in-depth examination of academic and socio-behavioral problem behavior and the skills to develop individualized programs to address the academic and social needs of challenging students. Course Information: Prerequisite(s): Grade of B or better in SPED 570 and approval of program faculty.

SPED 573. Understanding Research in Special Education. 3 hours.
Introduces students to the principles and concepts of research and assists them to understand how this information can be used to inform the development and selection of policies and interventions for students with special needs. Course Information: Field work required. Course Information: To be properly registered, students must enroll in one Lecture-Discussion and one Practice.

SPED 576. Internship in Assessment. 3 hours.
Internship experiences in an assessment clinic or school for special education majors. Course Information: Twenty-five hours of field work required. Prerequisite(s): SPED 462. Class Schedule Information: To be properly registered, students must enroll in one Lecture and one Practice.

SPED 578. School and Community-Based Inquiry Internship. 3 hours.
Field-based internship experiences with youth with disabilities, educators, families and/or community. Course Information: Field work required. Prerequisite(s): Approval of the program faculty. Class Schedule Information: To be properly registered, students must enroll in one Conference and one Practice.

SPED 579. Research Internship. 3 hours.
Students work on a specific research project under the direction of a faculty member. Course Information: Field work required. Prerequisite(s): SPED 573 or the equivalent and consent of the instructor.

SPED 580. Student Teaching in Special Education. 1-12 hours.
Practice teaching in the field of special education. Course Information: Field work required. Prerequisite(s): Grade of B or better in SPED 570 and approval of the program faculty.

SPED 592. Seminar on Theory and Research in Special Education. 4 hours.
Systematic in depth review of theory and research on selected topics in special education. Course Information: May be repeated to a maximum of 16 hours. Students may register in more than one section per term. Prerequisite(s): Admission to the Ph.D. in SPED program or consent of instructor.

SPED 593. Ph.D. Research Project. 1-8 hours.
Students design, implement, and analyze results of a research problem in this area of specialization. Completed study is reviewed by faculty. Course Information: May be repeated to a maximum of 8 hours. Prerequisite(s): Admission to the Ph.D. in Education program.

SPED 596. Independent Study. 1-4 hours.
Students independently study related topics not covered by courses, under faculty supervision. Course Information: May be repeated to a maximum of 12 hours. Students may register in more than one section per term. Prerequisite(s): SPED 500 or the equivalent, and consent of advisor and instructor.

SPED 599. Thesis Research. 0-16 hours.
Research on the topic of the student's dissertation. Course Information: Satisfactory/Unsatisfactory grading only. May be repeated. Students may register in more than one section per term. Prerequisite(s): Consent of the dissertation advisor.