ED.855 (RESEARCH AND DOCTORAL PROGRAMS)

ED.855.613. Entrepreneurship in Education. 3 Credits.
In this course, students will examine theoretical perspectives and research related to the field of entrepreneurial leadership in education. The education sector, despite the many transformative changes in the last 20 years, remains culturally traditional. Therefore, 21st century education leaders must learn to utilize entrepreneurial thinking, a sub-discipline of management as well as organizational theory, as another tool for innovation and organizational change. Students will study theories of entrepreneurship found in business, education, and other social sciences. They will also research entrepreneurial concepts and leadership traits through the disciplines of sociology, economics, and organizational management. Specific entrepreneurial research theories and practices, such as intra-preneurship and embedding of entrepreneurial leaders into educational institutions, will also be studied as means for promoting social justice, access, and equity for all learners.

ED.855.621. Instructional Theory in Online Teaching and Learning. 3 Credits.
This course will provide an empirical and theoretical foundation for effective online teaching and learning. Participants will explore cutting-edge research, theory, and practice of online instruction and engage in collaborative inquiry to address common assumptions about online and blended learning including cultural competence and ethical issues. Participants will draw upon relevant instructional theories, conceptual frameworks, and effective best practices as criteria for selection, implementation, and integration of online learning environments, and apply these theories and frameworks.

ED.855.622. Instructional Design Theories and Models. 3 Credits.
In this course, participants will examine theory and research in instructional design (ID), evaluate the various ID models, and learn to evaluate and apply effective ID to enhance interdisciplinary learning experiences in online and blended educational environments. ID theories and approaches will be discussed and contrasting views and perspectives of ID will be presented. A user-centered, iterative approach to design will be examined and applied to online and blended learning environments. Contemporary issues and trends in ID and a systems approach to design will be presented. The basic philosophical premise of the course is that there is not one method for design but rather an approach that considers the content, context, audience, and method of delivery in design. Participants will learn to effectively integrate and apply technology into instruction. (3 credits)

ED.855.623. Instructional Message Design in Online Learning Environments. 3 Credits.
This course will explore theory and research as it relates to instructional message design and its effectiveness in enhancing student learning outcomes, satisfaction, message readability, and better presentation in traditional and digital media learning environments. Message design is the study of manipulating visual symbols and presentation in order to enhance learning. It presupposes that the effective manipulation of symbols modifies the cognitive, psychomotor, or affective behavior. The concepts of message design are grounded in what Dewey (1900) referred to as "linking science" between learning theory and educational practice (Fleming & Levie, 1993). The course will discuss the application of perception theory, communication theory, and systems theory to design and effectively present digital media. Participants will learn message design principles for promoting learner engagement and motivation. They will explore instructional implications, best practices, and learning activities and objectives that benefit their students in the classroom as well as inform their personal and professional development.

ED.855.624. Trends and Issues in Instructional Design, Message Design, and Online Learning. 3 Credits.
This course explores trends and issues of current and historical significance to instructional design, message design, and online learning. The course prepares participants to make and defend policy decisions and become conversant with current trends and issues in the field. Readings will include contributions of key scholars, past and present, and topics covered include the history of instructional design, message design, and distance education. Critical issues, current trends and future prospects for the field are addressed as well as, research, theories, and approaches and their impact on present and future applications of instructional design, message design, and distance education.

ED.855.640. Building Strategic School, Educational Organization, and Community Partnerships. 3 Credits.
This course provides opportunities for students to engage in reflective practice as an educational or organizational leader, while building organizational and community partnerships to leverage multiple resources for addressing a specific organizational systems issue. Students are expected to: 1) become familiar with pertinent theoretical literature; 2) understand the internal and external organizational environment and the pressures of those institutional relationships; 3) understand the roles and responsibilities of creating and sustaining dynamic partnerships, including acting as an informal project manager and community advisor; and 4) anticipate the challenges of navigating through politics, policy, fundraising, marketing, social networking, and possible media involvement.

ED.855.641. Strategic Systems Change and Action Planning. 3 Credits.
Education leaders, public and private, need to understand the structures for managing the school and/or organizational environment. These structures include organizational visioning and action planning, budgeting and finance, and the leadership skills that incorporate instructional design, curriculum integration with standards, and logistics of technology implementation, professional development, and evaluation. This course is designed to introduce knowledge management concepts into an organizational or educational context and to provide an in-depth focus on data-driven decision making in organizational and educational institutions. Participants will develop an understanding of how to create and support change through a systems approach.

ED.855.642. Talent Management & Organizational Finance for Entrepreneurial Leaders. 3 Credits.

This course promotes knowledge and application of best practices in the development of primary organizational resources – its talent and financial resources. Students will engage in: 1) discovering best practices in the educational and/or organizational theoretical literature; 2) exploring talent management and development (TM) concepts, applications, and solutions through analysis of current case studies from the organizational and educational environments; and 3) actively learning to apply current TM theories, principles, and practices to the student's organization by appropriately applying these perspectives as they relate to the student's Problem of Practice. Students will also learn to identify and manage financial resources including grants, philanthropy, and program and product revenues. Students will identify the strategic challenges within talent and financial management and the application of appropriate, yet innovative, solutions to these challenges. Students will provide evidence of a deep and comprehensive understanding of how organizations could better invest in a particular aspect of talent and financial management to achieve greater educational and organizational outcomes.

ED.855.643. Turnaround Leadership in Schools and Educational Organizations. 3 Credits.

This course will provide participants with a deep knowledge of the educational challenges school and other educational organization leaders face in turnaround situations as well as what is known about effective instructional, human capital, and change management strategies for turning organizations around. It will combine research from multiple fields with practice examples drawn from existing turnaround schools and organizations. The focus will be on what is needed to design an organization such as a high poverty school for success through effectively implementing high leverage change strategies including distributed leadership, recruitment, training, and evaluation; using data to guide and monitor interventions; and effectively integrating external partners to address critical capacity needs. Attention will also be paid to utilizing these turnaround strategies in educational organizations broadly.

ED.855.701. An Introduction to Causal Inference. 3 Credits.

This course introduces strategies for estimating causal effects from a counterfactual perspective, uniting the potential outcome model with causal graph methodology. After an examination of the primary features of the counterfactual perspective and criteria for causal effect identification, the course focuses on developing a deep understanding of data analysis techniques that can work in favorable circumstances, such as matching, regression from a potential outcome perspective, and inverse probability of treatment weighting. The course concludes with the vexing challenges posed by unobserved determinants of both the cause and outcome of interest, and it provides a review of specialized designs that can salvage a research project in these situations.

ED.855.702. Causal Inference When Regression Fails. 3 Credits.

This course introduces strategies for estimating causal effects from a counterfactual perspective when conditioning techniques, such as matching and regression, do not identify the parameter of interest. After a review of scenarios when such conditioning will fail, the course then presents intervention designs, explaining randomization from both a potential outcome and causal graph perspective. The challenges to implementation of these designs are then discussed, with a special focus on large-scale randomized trials in education research. The course then considers the most prominent designs for causal inference in observational research in the presence of troubling unobservables: instrumental variable estimators, pre-post longitudinal designs, regression discontinuity, and estimation via exhaustive mechanisms. The course concludes with a consideration of credible avenues for investigation when point identification cannot be achieved, including an analysis of bounds and the estimation of a provisional estimate followed by a sensitivity analysis.

ED.855.708. Mind, Brain Science and Learning. 3 Credits.

Building on ED.855.712 Multiple Perspectives on Learning and Teaching, this course will survey theoretical and empirical research in the study of cognitive development focusing on recent and ongoing studies of memory, attention, language, and social/emotional development. Participants will examine research literature from multiple fields in the brain sciences, including cognitive science, experimental psychology, and neuroscience. General topics include an overview of brain structure and function, imaging technology, normal brain development, and how differences in development may affect learning. They will explore recent findings on topics such as the effects of stress, sleep, and multi-tasking on brain development and learning. Students will consider how research findings inform practice and policies in education and related fields. (3 credits)

Prerequisite(s): ED.855.712[C]

ED.855.710. Multicultural Education. 3 Credits.

The rapid and explosive demographic shifts in this country among culturally and linguistically diverse students, the fact that these students are projected to comprise the majority of school age students by the year 2020, and the current educational trajectory of students from marginalized groups provide a compelling rationale for identifying strategies and interventions for facilitating transformative multicultural approaches to education. Using Pedersen's tripartite model of multiculturalism, students will address the requisite awareness, knowledge, and skills for enhancing their multicultural competencies.

ED.855.712. Multiple Perspectives on Learning and Teaching. 3 Credits.

This course will survey classical theoretical perspectives on learning and teaching including behaviorism, cognitive, constructivist, sociocultural, social cognitive, and situative perspectives. Students will examine the research literature to identify the strengths and limitations of these perspectives in relation to understanding issues within their organizations. They will create a conceptual framework to organize these research approaches.

ED.855.714. Power, Politics, and Policy in Education. 3 Credits.
Government entities have increasingly molded public education. In the United States, federal laws and mandates have enormous influence on local schools; state governments have endorsed and implemented national Common Core curriculum standards; and funding is based on top-down distribution while mayors, school boards, parents, students, and other local stakeholders bid for local control of their schools. In this vein, other political groups press for reductions or the elimination of federal involvement in schooling. These transactions involve power relations and concepts of democracy and freedom. Through this course, students will examine various theories, concepts, principles, and dynamics of power, politics, and policy and how these ideas apply to education, organizations, and leadership.

ED.855.716. Contemporary Approaches to Educational Problems. 3 Credits.
In Contemporary Approaches to Educational Problems, students critically investigate methods professionals use to theoretically and empirically examine contemporary issues in education. We introduce improvement sciences as a frame for understanding and intervening in educational problems. Students will investigate research within their area of specialization and build the knowledge and skills to critically analyze existing research literature.

ED.855.718. Disciplinary Approaches to Education. 3 Credits.
Educators use theories, concepts and approaches from sociology, economics, history, anthropology, and other disciplines to make sense of problems in their field. This course introduces the concepts central to these approaches. Students will learn about these theoretical perspectives through reading central texts related to these disciplines of educational theory.

ED.855.720. Leadership in Educational Organizations. 3 Credits.
Through this course, students will examine contemporary educational practices and their relationship to leadership theories, models, and strategies. This course will focus on new and historical perspectives related to leadership development, group dynamics, and effective individual and organizational behaviors, visioning, and transformation. This course navigates the complexities of human behavior and organizational outcomes from psychological and behavioral perspectives and includes empirical findings drawn from neuroscience focused on resilience and the emerging field of neuroleadership.

ED.855.723. Education Policy Practicum. 3 Credits.
In this course students will learn how national and state education policy is made, examine the impact it has, and learn how research findings can influence its formation.

ED.855.725. Research Landscape. 3 Credits.
This course is designed to teach students the skills necessary to understand differentparadigms and methods of research. Students will have the opportunity to evaluate quantitative and qualitative research. Further, students develop an understanding of the principles, processes, and purposes of different types of educational research. Types of research methodology that will be discussed include: experimental research, quasi-experimental research, correlational research, single-subject research, and qualitative research. Students will develop an understanding of the quality indicators and high standards necessary to conduct educational research within their areas of interest. Further, students will have the opportunity to develop the skills to critique quantitative and qualitative research studies published in peer review journals. (3 credits)

ED.855.744. Policy Issues Affecting General and Special Education Relationships. 3 Credits.
In this course, issues affecting general and special education relationships will be examined at the federal, state and local levels. Students will become familiar with the major structures and individuals that influence policy development and implementation, with a particular emphasis on special education service delivery. Students will be exposed to policy analyses and will gain an understanding of some of the current tensions and debates within the special and general education domains and the federal policies dealing with both. In addition, this seminar will address current issues such as assessment, Common Core standards, RTI (Response to Intervention) and the blurring of special education roles in the new ways general education proposes to address the needs of students with disabilities during the time of new federal policies being proposed for teacher training.

ED.855.746. Studying Special Education Teacher Prep. 3 Credits.
This course focuses on the research literature pertaining to what we know, what we need to know, and the challenges in designing research on and in understanding special education teacher preparation. Students will review papers developed as part of two OSEP funded projects: COPSSE (whose goal is to enhance classroom practice and improve outcomes for students with disabilities by undertaking a rigorous research agenda that addresses special education personnel issues) and NCIPP (whose aim is to improve teacher quality and increase commitment to teaching students with disabilities). The understanding of these projects will provide a solid foundation to more recent work (e.g., Feng & Sass, 2010). Students will discuss the efficacy of special education preparation.

ED.855.751. Diffusion of Technology Innovations. 3 Credits.
This course explores theories, research, and strategies related to the diffusion and adoption of scalable and sustainable instructional technology innovations in education. It targets the diffusion of technologies and the transition from experimentation and research to adoption and implementation. Participants review contemporary theoretical developments in the science of implementation through evidence-based educational examples and are introduced to current technologies and anticipated future trends and ubiquitous practices in the field.

ED.855.752. Trends, Principles, and Practices of 21st Century Learning. 3 Credits.
This course explores pedagogical shifts in education that have arisen as a result of the integration of advanced digital tools and considers how these shifts and tools impact leadership, organization, instructional delivery, and student learning in today's schools. Participants learn essential principles and practices for building 21st century content and technology-rich learning environments for all students including those with disabilities and other special needs.

ED.855.753. Digital Age Technology and Instruction. 3 Credits.
This course provides opportunities for participants to explore integration of technology within the K-16 classroom environment. First, students will examine barriers to technology integration in the K-16 context with implications for professional development. Students will examine theoretical perspectives and research to investigate the advantages and challenges of effectively integrating technology to support learning. Specifically, students will be engaged in critically examining "evaluation practices" related to effective application of digital technology in the classroom from an informed theoretical, empirical, and pedagogical perspectives. Examples from research that examines evaluation practices can be related to classroom connectivity technology, mobile technologies, one-to-one computing, and video use. Participants will also be engaged in considering measurement to examine the effectiveness of the technology integration in instruction and gauge the capacity of their school organization in implementing digital age technology successfully. Participants draw upon relevant instructional theories, conceptual frameworks, and effective best practices as criteria for selection, implementation, and integration of technology.

ED.855.754. Evaluation of Digital Age Learning Environments. 3 Credits.
This course provides participants the opportunity to critically consider how digital-age technologies may affect critical thinking and achievement in the k-18 classroom. Topics include evaluating the effectiveness and application of learning technologies to improve student-learning outcomes, using data to determine instruction effectiveness, online and computer-assisted testing and strategies to maximize results, federal and state reporting practices, as well as formative and summative program and performance evaluation. Participants in this course analyze technology mediated education and learning environments as they relate to instruction and learning.

ED.855.755. How Schools Work. 3 Credits.
This course analyzes educational systems as social organizations. It gives particular attention to the often taken-for-granted ways that we structure learning in schools and classrooms and their consequences for social inequality. To these ends, the course will examine classical institutional and organizational theory and evaluate these theories in their application to historical process of educational formation and the contemporary organization of K-12 schooling in the US.

ED.855.756. Higher Education Teaching Skills for Doctoral Students. 3 Credits.
This course will provide a mechanism for students in the PhD program to obtain credits as a teaching assistant.

ED.855.760. Advanced Counseling Theories. 3 Credits.
The purpose of this course is to provide a critical analysis of both postmodern and traditional counseling theories. Traditional approaches include person-centered theory which includes concepts and constructs foundational to most counseling theories and cognitive-behavioral theory which is evidence-based. Postmodern approaches will include systems, ecological, feminist and multicultural theories.Attention will be given to the application of theory in various contexts and from diverse perspectives and worldviews, understanding behavior change in context, the counselor-client relationship, conceptualization and development of interventions for constructive, relevant and culturally appropriate change with diverse client populations and the implications for research.

ED.855.763. Theory and Practice of Clinical Supervision. 3 Credits.
This course is a didactic and clinical study of supervision. The didactic component involves an orientation to the different conceptual frameworks and models of supervision; the context of the supervision relationship, including variables such as gender, race, culture, socioeconomic status, sexual orientation, and religion; and the ethical, legal, and professional regulatory responsibilities of clinical supervisors. The clinical component includes the development of a supervisory contract, informed consent, documentation procedures, evaluation approaches, and structure for supervision sessions. Students practice supervision skills and strategies and techniques for doing individual and group supervision.

ED.855.764. Schools in Society. 3 Credits.
After a consideration of the historical development of modern educational systems as institutions that socialize, select, and allocate children to positions in the adult society, the course examines the origins of alternative explanations for why individuals obtain different amounts and types of educational training, considering how family background, race, and nativity shape modal trajectories through the educational system. The course also considers the particularities of the urban schooling in America since the 1960s, including the foundational literature on the effects of school and community resources on student achievement as well as the development and subsequent evaluation of school desegregation efforts. Debates over the meaning and pursuit of equality of opportunity are considered throughout the course, as they arise from broader concerns about the fairness of society, the prospects for upward social mobility, and the role that educational institutions have played in the production of socioeconomic inequalities across generations.

ED.855.771. Approaches to Urban Education. 3 Credits.
Approaches to Urban Education introduces students to urban studies, including an examination of the nature of cities in the 21st century and theoretical approaches to understanding urban life. Students explore both the diversity that characterizes many cities and the concentrated poverty and segregation along racial and ethnic lines that are found in many urban school districts. The course examines the question of how urban education is both similar to and different from education in other geographical contexts.

ED.855.772. Individuals in Urban Contexts. 3 Credits.
Individuals in Urban Contexts examines urban residents, with a specific focus on those populations most likely to attend public schools. Students also explore their own position relative to these populations. The course begins with a look at the expression of diversity in urban public school systems, especially around characteristics such as race, class, culture and linguistic status. Students undertake an ethnographically-informed study of the populations with which their Problem of Practice is most concerned, focused on an assets-based understanding of their context. Finally, the course helps students to examine and reflect upon their own position with respect to the identity of these populations and the categories examined in the first part of the course.

ED.855.773. Organizations and Institutions. 3 Credits.
Organizations and Institutions takes as its object of study the school, the school system, and those governmental and non-governmental organizations most central to the educational process. How are schools and school systems best organized, and what has recent research shown about how to reorganize them to improve outcomes for urban students? What other social institutions play an important role in determining outcomes for these students? This course helps students to make sense of and to improve the organizational context impacting urban students.

ED.855.774. Partnerships and Community Organizing. 3 Credits.
Partnerships and Community Organizing begins from the premise that schools alone are not going to solve the educational crises facing urban students, whether at the K12 level or settings such as community colleges. Building from the Organizations and Institutions course, this course examines how best to build partnerships with families, communities and other institutions to improve outcomes for urban students. What partnership models have demonstrated success in the past? What strategies have demonstrated success in involving students' families? This course examines partnerships at the level of the school and the school district.
Prerequisite(s): ED.855.773[C]

ED.855.806. Academic Writing. 3 Credits.
Doctoral students face a variety of writing tasks at all levels as they work toward their academic goals. It is critical for graduate students to have writing skills to effectively convey their ideas to different types of audience and to achieve their goals as a researcher. This course will offer an introduction to a wide range of scientific writing and will provide an overview of important features of academic writing. We will primarily focus on academic writing tasks that may be required in the earlier stages of an academic career.

ED.855.807. Career Development and Academic Writing. 1 Credit.
What is the next step? Doctoral students face a variety of career development stages as they work toward their professional goals. This course will cover a wide range of topics related to Ph.D. students' career development, including the university and non-university job market, research and teaching portfolios, CV and resume, job interview skills, networking, and negotiating tips. Furthermore, it is critical for graduate students to have writing skills to effectively convey their ideas to different types of audiences and to achieve their goals as a researcher. This course will also offer an introduction to scientific writing and will provide an overview of important features of academic writing. We will primarily focus on academic writing tasks that may be required in the earlier stages of an academic career. This course will help students to feel prepared for their career and to accomplish their professional goals.

ED.855.815. Science of Learning. 3 Credits.
The science of learning spans many disciplines (neuroscience, cognitive psychology, sociology, education, etc.) and can be investigated at all levels of analysis from the cellular and molecular bases to the application of principles in formal and informal learning environments. This course will offer an introduction to the fundamental issues in this area as they relate to educational research and practice, broadly defined. We will read primary and secondary sources that offer insights into how people learn, how we study learning, and how to take this information from the laboratory to the classroom.

ED.855.825. Human Development from Educational Psychology Perspectives. 3 Credits.
This course will provide an overview of major concepts, theories, and psychological research related to human development, primarily from birth to the transition to adulthood. This will include discussions of developmental milestones, individual functioning, human learning, motivation, cognitive and social-emotional development, and environmental influences. In addition, we will discuss the application of psychological principles to educational research and practice.

ED.855.830. Interdisciplinary Seminar I: Seminar in School Improvement. 3 Credits.
Students explore current research and scholarly perspectives on school improvement, school reform, urban education, and the science of learning. Students will be exposed to SOE faculty conducting research in these areas. Participants will develop and articulate their own broad research interests and will have an opportunity to explore the alignment of those interests with different faculty members. Participants will develop perspective papers and make brief presentations to their peers. Peers will be asked to provide feedback.

ED.855.835. Interdisciplinary Seminar II: Socio-Cultural Perspectives. 3 Credits.
This seminar will provide candidates the opportunity to examine race, ethnicity, and culture within the context of pre-K-12 and higher educational settings. Students will become familiar with the major racial, ethnic, and cultural groups in the United States. Through self-disclosure, experiential exercises, student presentations, readings, and lectures, students will gain a better knowledge of themselves, culturally distinct groups, multiculturalism, and implications for education.

ED.855.840. Doctoral Research. 1 - 9 Credits.
Doctoral students apply theories and concepts related to their areas of study.

ED.855.851. Research on Effective Professional Development. 3 Credits.
This course is designed to provide students with an overview of theoretical perspectives and research that provides evidence for the development of effective professional development that fosters instructional change on the preK-16 levels. Foundational to this work are sociocultural, situated learning, and adult learning theories, which will serve as the theoretical frame for course topics. Students will explore evidence-based professional development practices that support instructional change and student learning as well as contextual factors that impede or support educator learning with professional development programs. Finally, students will consider methods for evaluating the effectiveness of professional development programs.

ED.855.853. Savvy Surveys: A Questionnaire Design Process for Social Scientists. 3 Credits.
Many courses on questionnaire design focus on statistical techniques used to analyze surveys after the data are collected. In contrast, this course prioritizes the "front-end" survey design process that enables researchers to collect high quality data in the first place. Through this survey experiential learning course, students will enact seven steps en route to designing a survey scale on a research topic of interest to them that will have strong evidence of validity and minimize common sources of measurement error. The course is oriented with the assumption that the surveys will be used to produce quantitative data. However, the principles generalize to all types of survey questions and there are no statistical pre-requisites (though an understanding of descriptive statistics and correlations is useful).

ED.855.854. Practice Proseminar. 1 Credit.
Students will be exposed to current educational practice and perspectives on school improvement, school reform, urban education, and the science of learning through weekly sessions with educational professionals. Participants will develop and articulate their own broad research interests and will have an opportunity to explore the alignment of those interests with current educational practice.

ED.855.855. Research Proseminar. 1 Credit.
Students will be exposed to current research and scholarly perspectives on school improvement, school reform, urban education, and the science of learning through weekly sessions with current SOE faculty conducting research in these areas. Participants will develop and articulate their own broad research interests and will have an opportunity to explore the alignment of those interests with different faculty members.

ED.883.850. Dissertation Research. 1 - 9 Credits.
Doctoral students prepare the dissertation proposal and conduct research under the direction of the appropriate research committee in the School of Education. Written approval of the proposal must be received from the major adviser prior to registration.

ED.900.895. Graduate Research.
Fulltime Equivalency

ED.910.600. Non Resident Status.
The purpose of this course is for Doctoral Students who have been granted non resident status to maintain their matriculation status. While on non resident status, students are required to enroll in this course continuously, including summer semester.