ED.813 (TEACHER DEVELOPMENT/LEADERSHIP)

ED.813.651. Introduction to Education Budgeting. 3 Credits.
Educational leaders must be equipped to analyze and create budgets and other financial tools in order to fully realize their vision of high quality instruction in high performing schools. This course will introduce students to the fundamental principles of budgeting for educational institutions and provide them with a set of basic skills to create and analyze budgets in their specific professional context.

ED.813.652. Introduction to Global Education Policy and Analysis. 3 Credits.
The course provides an introduction to international comparisons of education systems as it reviews the history, comparisons and the educational systems in Europe, Asia and the OECD countries. International education systems and policies are examined on the local and national levels. Methodologies for comparison are explored. Education leaders will become knowledgeable of the systems in competitor countries in order to make their schools academically competitive in the global economy.

ED.813.654. Race, Power and Policy in Education. 3 Credits.
This course examines the intersections of race, power and policy and their impact on education. The course is designed to review historical and systematic drivers of racial and social class inequality in American education. Through this course, students will examine various theories, concepts, principles, and dynamics of race, power, and policy and how these ideas apply to and impact education, organizations, and communities with the intent of acting as advocates and change agents to eradicate racial inequalities to a solutions based orientation.

ED.840.600. Instructional STEM Leadership and Professional Development in the Elementary School. 3 Credits.
This course is designed to provide students with an overview of theoretical perspectives and research influencing STEM instructional leadership in elementary schools. Students will consider curriculum development, supervision and evaluation of teaching, assessment of student learning, and the design and implementation of school improvement programs. Strategies for developing a constructive, collaborative approach to supporting STEM teachers to improve student learning outcomes will be emphasized.

ED.840.601. Mathematical Foundations in the Pre-K-6 Classroom. 3 Credits.
The goal of this course is to support Pre-K-6 content knowledge for teaching related to the following topics: patterns; number and operation; measurement and data. Connections of these topics to an integrated approach to curriculum and instruction will be emphasized.

ED.840.650. Physical Science in an Integrated Pre-K-6 Classroom. 3 Credits.
The goal of this course is to provide Pre-K-6 teachers a rich understanding of foundational physical science concepts and their applications in an integrated science, technology, engineering, and mathematical world. Topics will include; structure, properties, and interactions of matter; physical and chemical properties of materials; mechanicsforce, and motion; gravity, energy transformation, energy sources, electricity, magnetism, light, sound, and wave interactions. Problem-based inquires will be organized to engage the participants in planning investigations, gathering and analyzing data, offering plausible explanations, and developing a deeper knowledge base in the physical sciences. The engineering design process will be integrated throughout the course.

ED.840.651. Earth and Space Science in an Integrated Pre-K-6 Classroom. 3 Credits.
The goal of this course is to provide Pre-K-6 teachers a rich understanding of Earth and space science content and pedagogy. Topics will include: chemical and physical interactions of the environment, Earth, and the universe; weathering and erosion; processes and events causing changes in Earth's surface; Earth history; plate tectonics; and astronomy. Problem-based inquiries will be organized to engage participants in planning investigations; gathering and analyzing data; offering plausible explanations, and developing a deeper knowledge base of Earth and space science. The engineering design process will be integrated throughout the course.

ED.840.652. Life Science in an Integrated Pre-K-6 Classroom. 3 Credits.
The goal of this course is to provide Pre-K-6 teachers a rich understanding of life science content and pedagogy. Topics will include: living organisms and their interactions, diversity of life, genetics, evolution, flow of matter and energy, and ecology. The applications and impact of technology on human life will be an important feature of the course. Problem-based inquiries will be organized to engage the participants in planning investigations, gathering and analyzing data, offering plausible explanations, and developing a deeper knowledge base of life science. The engineering design process will be integrated throughout the course.

ED.840.670. Advanced Methods in the Elementary STEM Classroom. 3 Credits.
This course will engage students in technology-enhanced, problem-based, and student-centered instructional strategies. Participants will learn to create an integrated, inclusive, and equitable STEM approach to support Pre-K-6 student learning and positive affect toward STEM. The course will include skills essential to the STEM learning environment.

ED.840.671. Algebraic and Geometric Thinking in the Pre-K-6 Classroom. 3 Credits.
This course will model the process standards of problem-solving, reasoning and proof, representations, connections and communication within the context of algebraic and geometric thinking (NCTM, 2000).

ED.840.672. Advanced Topics in the Pre-K-6 Mathematics Classroom. 3 Credits.
The purpose of this course is to develop teachers' content knowledge for teaching (knowledge of mathematics content, pedagogy, and student learning) in the context of advanced mathematics. This course builds on the previous courses: Mathematical Foundations in the Pre-K-6 Classroom and Algebraic and Geometric Thinking in the Pre-K-6 Classroom.

ED.840.673. Practicum in STEM and Mathematical Instructional Leadership. 3 Credits.
Candidates participate in a supervised practicum experience in an educational setting under the direction of the faculty where they demonstrate the application of knowledge, dispositions, competencies, skills and solutions to day-to-day activities performed by Mathematical and or STEM Instructional Leaders. Experiences are reflective of real and simulated field-based activities in a variety of educational settings. Candidates must complete a final practicum reflection paper, as well as a comprehensive portfolio that includes artifacts that are illustrative of their best work from the program.

ED.851.512. Politics of Education. 3 Credits.
Federal involvement in education has grown enormously in recent decades with calls for national standards and increasing reliance on standardized tests. While state legislatures and school boards traditionally provide funding and policy, mayors, parents and advocates of charter schools are seeking to redefine the nature of local control. Education leaders should understand the politics of education; the swiftly changing balance of power; and how education politics is practiced between and within the levels of government and the public. Students will study and analyze current issues and case studies that focus on the politics of education.

ED.851.601. Organization and Administration of Schools. 3 Credits.
Students examine the role of the school administrator, with emphasis on instructional improvement, pupil development and services, school and community relations, administration of facilities and finance, professional development and services for staff, and organizational relationships and responsibilities. Participants will explore best practices for fostering student achievement.

ED.851.603. School Law. 3 Credits.
Participants explore the legal foundations and structure of education and consider contemporary issues based on legislation and court decisions. Students develop techniques of legal research and analyze a topic of interest.

ED.851.609. Administrative and Instructional Uses of Technology. 3 Credits.
Prospective and practicing school administrators examine the issues, ideas, and programs surrounding the use of technology as a tool for administration and instructional management. Through hands-on experience, participants explore practical uses for software that can be applied to their daily work.

ED.851.616. Issues in K-12 Education Policy. 3 Credits.
This course provides an introduction to and an overview of several key and rapidly expanding areas of educational policy research, teacher effectiveness, teacher labor markets and teacher policy. The goals of this course are to familiarize students with some of the most current research in these areas, and to encourage and support students to develop skills as critical consumers of empirical work and policy debates in educational policy.

ED.851.630. School, Family, and Community Collaboration for School Improvement I. 3 Credits.
Participants examine the theory, research, and best practices on school, family, and community partnerships. Individuals explore different types of partnerships, challenges to developing school-based partnership programs, and the components of effective partnership programs that enhance student performance and success. Participants design an action plan for partnerships to address school improvement goals.

ED.851.631. School, Family, and Community Collaboration for School Improvement II. 3 Credits.
Building on the knowledge and skills developed in 851.630 (School, Family, and Community Collaboration for School Improvement I), students continue to explore research-based theories and best practices in school, family, and community collaboration. The emphasis of this second course in the sequence is on students revising, implementing, and evaluating a key activity in the action plan for partnerships developed in 851.630. **Prerequisite(s):** ED.851.630

ED.851.633. Introduction to the Independent School. 3 Credits.
This course will focus on the unique quality of the independent school. A specific focus will remain on the relationship between the parent and the teacher, reworking curriculum to fit the diverse needs of the student, understanding the importance of pedagogy and history in the independent school, and fostering a love of learning in each child.

ED.851.634. Curriculum, Instruction, and Assessment in Independent School Settings. 3 Credits.
Students consider the philosophical, historical, and psychological foundations for lower and upper school curriculum and explore the linkages between assessment-based curriculum and instructional strategies. After examining the scope and sequence of the lower and upper school curricula, students evaluate options presented in various school reform plans that pertain to independent schools and contemporary research findings on effective schools and effective instruction.

ED.851.635. Educating the Whole Child: Teaching to the Developmental Needs of the Child. 3 Credits.
This course will provide students with a whole picture of the child they will be, or are, teaching. In-depth examination will be on the cognitive, physical, and emotional development of a child from age 4 through 18 years.

ED.851.642. Leadership in Curriculum, Instruction, and Assessment for Independent Schools. 3 Credits.
Students examine curriculum theory, design, and content and their relation to instruction and assessment as applied to independent schools. Topics include: curriculum and the independent school mission statement; K-12 curriculum scope and sequence; leadership of curriculum change; curriculum mapping and its implications; methods of assessment; interdisciplinary curriculum development; culturally responsive curriculum, instruction, and assessment; and differentiation of curriculum and instruction. Participants apply course content by developing a plan for curriculum implementation in their own schools.

ED.851.643. Supervision and Professional Development for Personnel in Independent Schools. 3 Credits.
Students examine models of instructional supervision, including clinical supervision and various approaches to personalizing supervisory strategies appropriate for independent schools. Emphasis is on development of an annual, school-based professional development plan; alignment of instructional goals with the supervision and evaluation of teachers; delegation of supervisory roles; recruitment, retention, and support of faculty and staff in independent schools; designing teacher incentives, recognition, and award programs; and using the principles of high-quality professional development to enhance teachers' knowledge and skills. Students apply concepts to practical situations in laboratory sessions.

ED.851.644. Public Relations, Marketing, and Fund-raising for Independent Schools. 3 Credits.
Students explore the importance of public relations, marketing principles, and fund raising to independent school success. Topics include: maintaining positive community relations; management of admission policies and procedures; operation of public relations and publicity functions; coordination of relations with other independent schools; facilitating relations with educational, governmental, and social service agencies; and fund-raising strategies. Students analyze and critique various strategies through case studies and discussion.

ED.851.645. Governance of Independent Schools. 3 Credits.
Students learn to facilitate positive working relationships within the board of trustees and build effective partnerships between the board and the school's faculty and staff. Topics include: setting, communicating, and evaluating progress toward annual goals; strategic planning with faculty, staff, and board members; establishing structures for boards to accomplish their work; reporting effectively to boards on important issues and concerns; models for evaluating the head of school; models for evaluating board performance and contributions of individual board members; developing trustees as effective school advocates; and managing crises. Students gain an understanding of the pressures exerted from multiple constituencies, finding ways to base decisions on what is good for students, what is good for the institution, and what is consistent with their own values.

ED.851.646. Business Management and Finance for Independent Schools. 3 Credits.
Students learn to apply business principles and financial processes that are the foundation for successful independent school management. Content includes: oversight of independent school budgets; understanding of tuition and other revenue sources; knowledge and effective use of endowments, financial aid, and loans; understanding of major expenses; annual budget planning; grasping the legal and ethical implications of financial management; developing salary scales and policies; using principles of strategic, long-range planning; and facilities planning, maintenance, and management. Applications include case studies for identifying and resolving common problems and challenges.

ED.851.648. Team Leadership. 3 Credits.
This course is designed for school leaders, including administrators, supervisors, and teachers, who want to improve their knowledge and ability to facilitate change in the classroom, school, or district. The course is based on the premise that educational leaders devote considerable time working in group situations. The course is based on research and theory in education and other fields related to individual, group, intergroup, and organizational development. Opportunities are provided for participants to explore and practice various strategies with special emphasis on how these relate to change in educational settings.

ED.851.705. Effective Leadership. 3 Credits.
Students review the principles and techniques required of principals, assistant principals, and teacher leaders. The course emphasizes diagnosis of the school climate, principles of distributed leadership, motivation of faculty teams, and the dynamics of working in and with groups to accomplish school improvement goals. Emphasis is placed on the leader's role in creating a collaborative vision/mission for a school and in establishing meaningful working relationships with the larger community.

ED.851.708. Systemic Change Process for School Improvement. 3 Credits.
Students examine the literature on systemic change in schools, with an emphasis on the roles of the teacher leader. Topics include planning, implementing, and evaluating the change process for school improvement.

ED.851.809. Seminar in Educational Administration and Supervision. 3 Credits.
Students prepare and present a seminar paper on a problem in educational administration or supervision. The paper includes a comprehensive literature review, an assessment of implications for administrative and supervisory behavior, and an implementation plan for addressing the problem in an educational setting. Students engage in case study analyses, role playing, and assessment exercises.
Prerequisite(s): ED.851.601 AND ED.851.603 AND ED.851.705 AND ED.852.602 AND ED.881.611 AND ED.881.622 AND ED.881.610

ED.851.810. Internship in Administration and Supervision. 3 Credits.
Students participate in a supervised practicum experience in an educational setting. Individual and group sessions of the interns are held. (3 credits)

ED.851.814. Internship in Administration and Supervision. 3 Credits.
Students participate in a supervised practicum experience where they demonstrate the application of knowledge, dispositions, competencies, skills and solutions to day-to-day activities performed by practicing administrators or supervisors. Students are required to complete a minimum of 200 observation and performance hours aligned with leadership standards. Experiences are reflective of real and simulated field-based activities in a variety of educational settings. Students must complete a final internship reflection paper, as well as a comprehensive portfolio that includes artifacts that are illustrative of their best work.

ED.852.602. Supervision and Professional Development. 3 Credits.
Students examine models of instructional supervision, including clinical supervision and various approaches to personalizing supervisory strategies. Emphasis is on supervision skills, including the assessment of teacher performance, effective conferring strategies, and working with teachers to construct instructional improvement plans. Students apply concepts developed to practical situations in laboratory sessions.

ED.855.610. Seminar in Teacher Leadership. 2 - 3 Credits.
Students in the final year present and evaluate their projects and plans for implementing change in their work environments. In addition, participants examine selected topics and current issues in educational leadership.

ED.855.730. Doctoral Directed Readings. 3 Credits.
Students work under the direction of a faculty member to explore literature related to a specialized topic in education while developing a product, such as a paper, article, or course syllabus.

ED.881.610. Curriculum Theory, Development, and Implementation. 3 Credits.
Students examine curriculum theory through philosophical, historical, and sociological perspectives and apply course content to contemporary curriculum issues. Topics include aligning instruction with state and school district curricula and modifying curricula to meet individual learner needs. Students also explore effective strategies for implementing curriculum changes.

ED.881.611. Action Research for School Improvement. 3 Credits.
Students explore the role of the educator as an action researcher, with special emphasis on formulating and refining research questions as well as on selecting appropriate methodologies for classroom or school-based research. Students review research as a tool for assessing and improving teaching/learning environments.

ED.881.621. Effective Schools and Effective Instruction. 3 Credits.
Participants review recent research on effective schools and effective instructional techniques. Additional topics include strategies for implementing relevant research findings and implications for administrators, supervisors, and teachers.

ED.881.622. Advanced Instructional Strategies. 3 Credits.
Students review recent research on effective instruction and explore advanced classroom strategies and techniques designed to enhance their effectiveness in meeting the needs of diverse populations of learners. Examples include direct instruction, cooperative learning, dimensions of learning, creative problem solving, and applications of technology to thinking and learning. Students develop expert teaching skills and learn to diagnose and deliver instructional strategies that are most appropriate in specific circumstances.

ED.882.511. Human Growth and Development: A Lifespan Perspective. 3 Credits.
Students consider an overview of the physical, social, and emotional aspects of human development throughout the lifespan. The course considers developmental theory and reviews current areas of research.

ED.882.524. Education of Culturally Diverse Students. 3 Credits.
Participants analyze recent research related to the education of culturally diverse children and youth and explore case studies of successful minority education programs. The course focuses on understanding the interrelated roles of the school, the family, and the community in addressing the educational needs of culturally diverse children and youth.

ED.882.641. Entrepreneurial Education Leadership. 3 Credits.
This course engages the learner in understanding leadership traits and behaviors, particularly entrepreneurism, and the need for entrepreneurial leadership in educational organizations. Readings, discussions, and examples will support the development of knowledge about leadership, entrepreneurial thinking, learning and innovation. By developing a keen awareness of the competencies associated with Entrepreneurial Education Leadership at the individual, group, and organizational levels, the learner will create a leadership strategy to address their own educational leadership challenges as they continue the work of self-directed leadership development.

ED.883.510. Understanding Educational Research. 3 Credits.
Participants explore the processes and approaches to research in education. Students critique published research studies and examine both quantitative and qualitative research methodologies. Class members conduct a computerized literature search and prepare a research review in their respective areas of concentration.

ED.883.601. Basic and Inferential Statistics. 3 Credits.
This course is designed as an introduction to basic descriptive and inferential statistics. Topics will include the summary and analysis of data using graphs, measure of central tendency, simple regression, correlation, t-tests (independent and dependent), and Analysis of Variance (ANOVA). Emphasis will be place on the theoretical understanding of the statistical concepts and analyses will be described in class but accomplished using Stata software.

ED.883.710. Quantitative Research Methods. 3 Credits.
Students prepare to conduct research in the behavioral sciences, particularly descriptive, correlational, experimental, and quasi-experimental research designs. Participants develop a research proposal in their respective areas of concentration.

ED.883.711. Qualitative Research Methodology I. 3 Credits.
This seminar provides an introduction to qualitative research methods, with a focus on education, culture, and society. Primary attention will be given to case study methods and ethnography, including interviews, observations, and data analysis. The course will give detailed guidance on developing field notes and codes and actively engaging in thematic analysis of data. In addition, we will examine the role of theory, epistemologies, and subjectivity/ objectivity, and grapple with and explore strategies to produce validity and reliability in qualitative research.

ED.883.718. Research Methods and Systematic Inquiry I. 3 Credits.
This course is designed to teach introductory concepts in quantitative, qualitative, and mixed methods research. The course is structured to introduce students to these three paradigms while focusing on research inquiry and data collection, management, and analysis. The course is based on the premise that research develops and evolves through an iterative process. This research process requires analysis, decisions, judgments, and careful consideration of alternatives through reflection. Specifically, students consider the process of school improvement from improvement sciences and design-based research perspectives. Students will design a research project and collect data to understand contributing factors related to a problem of practice within their organizational context. The goals for the class include building a strong foundation in research methods through engaging in the process of reading and conducting educational research.

ED.883.719. Research Methods and Systematic Inquiry II. 3 Credits.
This course continues students' explorations of research methods. Specifically, students will explore analysis procedures across the quantitative, qualitative, and mixed methods research paradigms. In doing so, students will engage in (a) quantitative data analysis to explore relationships between important constructs related to an educational context using inferential statistics, (b) qualitative analysis to explore phenomena using inductive and deductive approaches, and (c) mixed methods analyses to explore educational problems of practice with depth and breadth. Students will also begin exploring variables and change mechanisms for their intervention research.
Prerequisite(s): ED.883.718[C]

ED.883.721. Evaluation of Education Policies and Programs. 3 Credits.
This course is intended to provide an overview of key elements and topics related to program and policy evaluation and research. Students will become familiar with types of evaluation and their purposes including their role in research and development and program improvement. The course will also cover developing researchable questions and problem identification, logic models and program theory, threats to validity, and experimental, quasi-experimental, and mixed methods designs.

ED.883.723. Hierarchical Linear Models. 3 Credits.
This course offers an introduction to methods for the analysis of multilevel or clustered data, hands-on development, and interpretation of hierarchical linear models. The topics include conceptual development of multilevel models, estimation, model assessment, power, modeling longitudinal data, and models for continuous outcomes as well as categorical or limited dependent variables.

ED.883.814. Structural Equation Modeling. 3 Credits.
This course will offer a basic introduction to structural equation modeling (SEM). In this course, students will develop a fundamental understanding of SEM methods and be familiarized with SEM applications in order to critique a research study with respect to the statistical analysis, and select an appropriate model and be able to apply it. The topics will include conceptual development of SEM, exploratory and confirmatory factor analysis, path analysis, model specification and identification, and model estimation and fit testing. Also, we will focus on applying SEM methods to non-nested data and continuous outcome variables. The STATA software will be used for application.

ED.883.849. 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.884.501. Advanced Processes and Acquisition of Reading. 3 Credits.
This foundation course provides a basis for graduate study of instructional reading strategies, literacy materials, and assessment approaches in K-12 reading education. Students examine scientifically based reading research; linguistic, psychological, and sociocultural theories and factors related to reading acquisition; and how various theories are applied to classroom reading practices. Topics include phonemic awareness, phonics and spelling, vocabulary development, text structure, fluency, and reading comprehension.

ED.884.502. Diagnosis/Assessment for Reading Instruction. 3 Credits.
Students in this course learn approaches for assessing and addressing the reading abilities and needs of children. Course activities include the examination of learner characteristics and implications for appropriate reading instruction. Students study and analyze a broad selection of formal and informal assessment techniques and instruments, their application to reading instruction and classroom practice, and strategies for effectively communicating relevant information to parents, educators, and other professionals about children's reading performances.

ED.884.505. Materials for Teaching Reading. 3 Credits.
Students in this class develop ways to evaluate and select appropriate materials for classroom reading instruction. Course activities include reviews of commercially produced reading programs, children's literature, remedial materials, and the use of appropriate and culturally sensitive instructional approaches for teaching diverse student learners. Materials are evaluated in relation to current research, developmental and cultural appropriateness, and student interest and motivation.

ED.884.507. Instruction for Reading. 3 Credits.
Students in this course study how reading research is applied to the various methods, strategies, and techniques of elementary classroom reading instruction. Emphasis is placed on developing expert knowledge in teaching phonics, word recognition, vocabulary, reading comprehension strategies, organization, and study skills related with reading and academic achievement. Participants explore strategies for differentiating instruction to address the wide range of reading abilities and cultural experiences found in classrooms.
Prerequisite(s): ED.884.501

ED.884.508. Literacy in the Content Areas Part I. 3 Credits.
This course is intended to present the reading process from initial to proficient adult levels for teachers of content subjects in middle or high school. Organizing principles of learning development, differences, and environments will be introduced, and connected with principles of content knowledge and application. Additionally, the uses of assessment will be explored and joined to evidence-based practices of planning and multimodal instruction. Finally, issues of professional practice and ethics will be discussed.

ED.884.510. Literacy in the Content Areas Part 2. 3 Credits.
This online graduate level course extends the understanding of the adolescent learner as they explore, apply and discuss literacy skills across the disciplines. Application of information acquired in the first part of the course sequence (Literacy in the Content Areas - Part 1) will be referenced and emphasized to demonstrate understanding and the ability to design, implement and assess effective literacy instruction in the content classroom.
Prerequisite(s): ED.884.508

ED.884.604. Emergent Literacy: Research into Practice. 3 Credits.
This course addresses in-depth instructional issues involving emergent literacy processes. Topics include the application of current literacy theory to alphabetics, word identification, and word study strategies for classroom instruction; designing and providing authentic early literacy experiences and literacy-rich environments; and strategies and methods for storytelling and in developing contextual oral reading fluency. (3 credits)

ED.884.610. Advanced Diagnosis for Reading Instruction. 3 Credits.
This course advances and refines the knowledge of students about advanced diagnostic processes in determining reading difficulties and designing appropriate and related interventions. Case study and small group collaboration are used to develop students' abilities to integrate data from multiple sources, generate diagnostic profiles, and make instructional recommendations. Students learn to administer standardized and criterion-referenced assessments and about the principles, philosophies, and strategies of effective remedial approaches. (3 credits)

ED.884.612. Teaching Reading and Writing in the Content Areas to ESL Students. 3 Credits.
The reading process for speakers of other languages is examined so that participants are able to provide a variety of instructional, cognitive, motivation, and study skill strategies. Technology instruction is addressed for teaching ESL students Internet skills, as well as other computer applications to enhance reading and writing skills. Participants become familiar with the English Language Arts Content Standards, the Core Learning Goals, and their relationship to the ESL Content Standards.

ED.884.615. Cross-Cultural Studies in Literacy. 3 Credits.
Students in this class investigate how culture, language, school and out-of-school literacy experiences, and education policy influence student attitude, learning, and content area knowledge. Participants evaluate multicultural literacy research, curriculum, literature, and new literacies, and how social and cultural factors contribute to daily classroom literacy instruction and everyday life. The course emphasizes creating democratic and culturally sensitive learning environments.

ED.884.617. Children and Adolescent Literature. 3 Credits.
This course examines in-depth instructional issues involving multiple genres of children and adolescent literature. Topics include the examination of text structures in informational, expository, and narrative materials; effective identification and selection of instructional and independent level texts for student reading; developing awareness of literature about, and resources related to, culturally diverse groups in the United States; understanding self as a reader and to use that understanding to inform teaching practices, engagement and motivational issues related to text instruction and selection; and how digital literature can be used in classroom instruction. (3 credits)

ED.884.620. Seminar in Reading: Roles of the Reading Specialist. 3 Credits.
Students in the final year present and evaluate their projects and plans for addressing the needs of students at all levels of reading ability in their classrooms, schools, and school districts. In addition, participants examine selected topics and issues in reading instruction.
Prerequisite(s): ED.884.811[C] OR ED.884.810[C]

ED.884.642. Linguistics for Teachers. 3 Credits.
This course acquaints teachers and other reading professionals with aspects of linguistic theory that apply in elementary and secondary classrooms. Emphasis is on a thorough, research-based understanding of phonology, morphology, semantics, syntax, and pragmatics. Students learn ways to use the information to strengthen existing reading and language arts instruction. Issues of cultural diversity, second language learning, and developmental issues of language are covered in this interactive format.

ED.884.701. Reading Comprehension and Critical Literacy. 3 Credits.
Building on the instructional strategies and skills of earlier coursework, this advanced graduate course examines classic and contemporary research and theory in reading comprehension and critical literacy and how these dimensions and processes are applied to literacy education. During the course, students learn to explore and appreciate the diversity of literacy research perspectives, and to learn to think and write critically and analytically about research, literacy education policy, and practices that influence and are used in classroom education. These topics are overlapped by advanced instructional methods and strategies for teaching students reading comprehension and critical literacy skills and dispositions. (3 credits)

ED.884.703. Seminar in Adolescent Literacy Education. 3 Credits.
The Seminar in Adolescent Literacy Education provides opportunities for students to explore the latest research, theory, and literacy education practices for adolescents in a seminar format. Topics include novel and useful technologies, motivating reluctant readers, and cultural and linguistic diversity in adolescent literacy education.

ED.884.810. Supervised Clinical Practicum I for Reading Certificate Students. 3 Credits.
The practicum for advanced reading education certificate students is a capstone experience of students enrolled in reading certificates. Candidates demonstrate abilities to translate literacy education research into practice. The overarching intent of Practicum I is to develop literacy education leaders while refining candidates' knowledge and applications of research. Coursework centers on actual work with children and allows JHU candidates to provide evidence of their mastery of reading education skills and strategies.

ED.884.811. Supervised Clinical Practicum I for Masters in Reading Candidates. 3 Credits.
This first practicum is a midpoint program experience for Reading candidates. Candidates demonstrate abilities to translate literacy education research into practice. The overarching intent of Practicum I is to develop literacy education leaders while refining candidates' knowledge and applications of research. Coursework centers on actual work with children and allows candidates to provide evidence of their mastery of reading education skills and strategies. (3 credits)

ED.884.820. Supervised Clinical Practicum in Reading II. 3 Credits.
This second practicum is a capstone course that builds on all previous program coursework and especially the pre-requisite ED.884.620 Seminar in Reading: Roles of the Reading Specialist course. Work concentrates on developing effective reading specialist and literacy coaching qualities and skills, facilitating change in school communities, and fostering teacher growth and student achievement. A strong emphasis of the course is on job-embedded professional development. Candidates deliver demonstration lessons and lesson planning assistance to teachers and conduct professional development workshops in school settings. The practicum allows candidates to provide evidence of their mastery of particular ILA leadership/reading specialist standards.
Prerequisite(s): ED.884.610 AND ED.884.620 AND ED.884.810

ED.884.850. Clinical Practicum in Writing and Other Media. 3 Credits.
Reading and writing printed texts have been, by tradition, interconnected processes. In the Digital Age, other media, such as still and moving images and audio texts, increasingly coexist alongside printed texts. During this practicum experience, candidates examine current issues involving the communication shifts that are occurring in the 21st century. Using digital literacies, writing, and object-centered multimedia ideas and instructional approaches, candidates work with teachers and students in designing, producing, and using new and traditional literacies to best prepare themselves and others for advancing technologies and practices that are changing the ways that people communicate and network.

ED.893.508. Technology and the Science of Learning. 3 Credits.
Technologies are part of the intellectual landscape in which new kinds of knowledge are breaking down the boundaries of previous distinct disciplines. The design and use of new technologies make possible new approaches to learning, new contexts for learning, new tools to support learning, and new understandings of the dynamics of the learning process itself. This course examines the role of technology relative to the key concepts of active learning, metacognition, and transfer of knowledge from multidisciplinary perspectives on learning. Based on their readings of empirical literature from the science of learning, students will develop and implement a technology-related strategy that aligns educational technology to standards-based instruction, promote problem solving and higher-order thinking skills, facilitate cooperative learning, and use reflective teaching and inductive approaches to increase student achievement. Students must take Technology and the Science of Learning as one of their first courses in the program.

ED.893.545. Integrating Media into Standards-Based Curriculum. 3 Credits.
Participants explore the possible ways technology can be integrated with core content standards. Technology-enhanced progress tracking, evaluation and measurement tools are explored from both a hardware and software perspective. Online resources utilized to enhance curriculum and classroom learning are investigated, evaluated and discussed in an open forum. Students explore untapped technology resources and work collaboratively to design and develop learning opportunities aligned with their professional context.

ED.893.550. Emerging Issues in Digital Age Learning. 3 Credits.
The new digital landscape is drastically changing how people work, collaborate and learn. New innovations in digital technologies are powerful influences in 21st century classrooms. In this course, participants are exposed to emerging issues for Internet-based culture and digital age learning, including gaming, virtual and augmented reality, digital libraries and databases, big data and data mining, and the use of social media and digital tools for enhancing instructional delivery. Learners will explore the use of emerging technologies and their integration into schools and organizations. (3 credits)

ED.893.563. Multimedia Tools for Instruction. 3 Credits.
Students examine applications of multimedia, including video image capture and multimedia production tools. Students investigate storage issues, standards, security, networking capabilities, data compression, animation, and incorporation into existing applications. Participants develop projects that integrate multimedia applications into effective instruction.

ED.893.601. Evaluation and Research in Digital Age Learning. 3 Credits.
In this course students learn and practice the skills necessary to evaluate the use of educational technology in learning environments and educational settings. The course covers a range of alternative and mixed methods for data collection, such as observation, interviewing, the use of surveys, and analysis of data. Students develop an evaluation plan that can be implemented in their own educational settings and demonstrates their ability to select and/or develop appropriate metrics to identify the impact of technology in the teaching-learning process. Students use empirical methods to describe, explore, and/or explain the relationships between technology and program and/or individual outcomes.

ED.893.628. Gaming and Simulations for Learning. 3 Credits.
This course provides an overview of game-based learning theories and best practices for incorporating educational games and simulations into a range of learning environments. Students will learn to apply analytic frameworks to commercial and educational games so as to evaluate a game's potential as a learning tool or environment for K-18, business, and government settings. Students will integrate games with lessons and other learning activities, as well as produce prototypes for their own educational games and plan to use gameplay data for assessment.

ED.893.632. Data-Driven Decision Making. 3 Credits.
The increasing impact of a knowledge economy and globalization has been a catalyst to the fields of knowledge management and organizational decision making. This course is designed to introduce knowledge management concepts into an educational context and to provide an in depth focus on data-driven decision making in educational organizations and institutions. Participants investigate how decisions and strategies are developed and how tacit or explicit knowledge can be identified, captured, structured, valued and shared for effective use. Course topics include leadership and strategic management relative to organizational decision making, managerial and organizational structures, organizational learning, and decision support systems. A related intent is to develop an understanding of data mining metrics that can be used to create predictive models that support systemic change in schools. Opportunities are provided for participants to use online and electronic tools that can assist in facilitating meaningful conversations about instruction and learning among their school's faculty and staff.

ED.893.634. Technology Leadership for School Improvement. 3 Credits.
Education leaders need to understand the use of technology for teaching, learning, and managing their school environment. These skills include schoolwide technology planning and leadership that incorporate instructional design, curriculum integration with standards, logistics of technology implementation, professional development, and evaluation. Students will develop an understanding of how to create and support technological change through a systems approach. Topics include sources of resistance to change, tools for planning, decision making and change, creating and supporting a culture for learning and change, and managing and institutionalizing change systems.

ED.893.645. Designing and Delivering Online and Blended Learning Environments. 3 Credits.
This course explores how educators use online collaborative technology tools in the classroom and in professional development so that all learners achieve at higher levels. Online collaborative tools provide a new set of technologies that focus on the social collaborative aspect of the Internet. These tools include, but are not limited to: learning management systems, wikis, webinars, image repositories, document sharing, and other tools. In addition, the infusion of online collaborative technologies into professional development allows educators the opportunity to utilize methods and strategies for effective collaboration beyond the walls of the classroom.

ED.893.701. Advanced Seminar in Digital Age Learning. 3 Credits.
The seminar is the capstone course in the Digital Age Learning and Educational Technology master's program and reflects students' individual mastery for leveraging technology with diverse learning populations. The seminar focuses on examining the constructs of educational technology topics and culminates in the student creation of his/her online portfolio. The portfolio showcases the products and skills developed by learners during the core courses throughout the term of their academic studies. The goals of the seminar are to engage and support participants in understanding the historical, cognitive, technical, political, and sociological issues involved in the effective use of technology in education and particularly in the integration of technology into instruction.
Prerequisite(s): ED.893.601

ED.893.708. Technologies and Creative Learning. 3 Credits.
Through the latest research in learning in the computer age, this course explores how technology can support creative learning. Henessey and Amabile (2010) state that creativity is essential to human progress. Through evidence-based research, learners will explore the potential for technology to support instruction and learning. The digital age is affecting how identity is defined and managed. The identity life-cycle will be explored as well as the field of human-computer interaction and its effects on creative thinking. The concepts of participatory culture and media education will be discussed and how they support developing digital communities of learners. We will discuss computer-supported collaborative learning and how online communities can be catalysts for interactive media creation. We will also explore disruptive technologies, radical game design, and the new literacies in the digital age.

ED.893.830. Graduate Project in Technology. 3 Credits.
Students of demonstrated ability with special interest in technology study under the direction of a faculty member in the School of Education. Students must meet with their faculty adviser and prepare an outline of their proposed project before they register for this course.

ED.893.850. Advanced Applications in Digital Age Learning. 3 Credits.
The advanced applications course provides students the opportunity to individualize their program experience, to sharpen existing skills, to gain new skills, and to pursue their educational technology interests related to curriculum and professional development in support of technology-based programs. Students work with their advisor to create a professional, customized learning experience that stretches the student through his/her participation in the development, design, implementation, or evaluation of high-quality technology products, projects, or services. The activities in this course are aligned to individual students' schedules and can include collaborative opportunities with public and private sector organizations and agencies that have local, regional, national, or international interests. This course supports the development of leadership expertise in an area designated by the student as a set of skills needed to advance the individual in their chosen area of study and professional practice.