



# College of Education

## Doctor of Education (EdD)

### STEM Education

Student:		Date:	
Address:		Student ID #:	
City:	State:	Zip:	
Home:	Work:	Cell:	
Email(s):			

#### CORE COURSE REQUIREMENTS

	<u>CREDITS</u>	<u>TERM</u>	<u>GRADE</u>
EDD 8013 Foundations of Action Research in Education	3	_____	_____
EDD 8003 Leadership Theory and Strategic Operations for Ed. Admin.	3	_____	_____
EDD 8023 Evaluation and Assessment of Learning Programs	3	_____	_____
EDD 8813 Transformational Leadership and the Learning Organization	3	_____	_____
EDD 8833 Strategic Planning and Resource Allocation	3	_____	_____
EDD 8113 Policy Analysis and Ethics in Education	3	_____	_____
EDD 8143 Leading Culturally Responsive Learning Communities	3	_____	_____
EDD 8133 Organizational Design and Management	3	_____	_____
EDD 8513 Quantitative Research Methods for Practical Application	3	_____	_____
EDD 8523 Qualitative Methods for Applied Education Research	3	_____	_____

#### RESEARCH PREPARATION REQUIREMENTS

SEM 8703 Seminar I - Components of the Dissertation (online course)			
<b>OR</b>			
RES 8513 Residency I - Dissertation Topic and Proposal (live or virtual)	3	_____	_____
SEM 8713 Seminar II - The Literature Review (online course)			
<b>OR</b>			
RES 8523 Residency II - Dissertation Rsch Analysis (live or virtual)	3	_____	_____

#### SPECIALIZATION COURSES –

STEM 8103 Equity, Policy, and Social Justice in STEM Education	3	_____	_____
STEM 8203 Learning Theory and Classical Research in STEM Education	3	_____	_____
STEM 8303 Nature of Inquiry in STEM Education	3	_____	_____
STEM 8403 Current Issues and Trends in STEM Education	3	_____	_____

#### DISSERTATION COURSES

EDD 9003 Doctoral Study Mentorship	3	_____	_____
EDD 9013 Doctoral Study Completion - I	3	_____	_____
EDD 9023 Doctoral Study Completion - II	3	_____	_____
EDD 9033 Doctoral Study Completion - III	3	_____	_____

**TOTAL:** 60

## **DOCTOR OF EDUCATION (EdD) – LIST W/ COURSE DESCRIPTIONS**

### **EDD 8003 Leadership Theory and Strategic Operations for Educational Administration**

This course emphasizes a modern review of leadership theory and its relationship to institutional effectiveness. As successful leaders seek to implement effective and responsive strategies that prepare the organization for long-term sustainability, they must do so within an ethical, strategic context. Students in the course will evaluate concepts like systems thinking, change implementation, resource management, group dynamics, social responsibility, and culturally-responsive leadership.

### **EDD 8013 Foundations of Action Research in Education**

The purpose of this course is to familiarize students with the goals/objectives of the EdD program at USW and provide the foundational knowledge of the research skills necessary to be successful in the program. Students will review the role of the EdD within an organizational setting, as well as the structural frameworks for conducting research intended to solve problems within that same context. The course content includes an intense focus upon professional research in practice by analyzing designs and methodologies used by the scholar-practitioner.

### **EDD 8023 Evaluation and Assessment of Learning Programs**

This course will emphasize the leadership skills and administrative knowledge required to evaluate the design and delivery of curricula within various educational programs. Students will address the modern theories and best practices when developing assessment metrics for examining, reviewing, and revising instructional programs that are equitable, ethical, collaborative, consistent, and effective.

### **EDD 8813 Transformational Leadership and the Learning Organization**

This course explores the integration of organizational learning and knowledge management by using transformational leadership as a theoretical/conceptual framework. Specifically, the course underscores the application of current research and analysis as tools for guiding and shaping organizational culture.

### **EDD 8833 Strategic Planning and Resource Allocation**

This course utilizes a holistic approach when assessing how resources are allocated within the context of an educational institution. Students will examine the modern theories of organizational development and strategies for quality educational development. Course topics will include ethical development of institutional identity, core competency development and expansion, strategic alliances/partnerships, and opportunities for innovation.

### **EDD 8113 Policy Analysis and Ethics in Education**

This course emphasizes the foundational processes and instruments for evaluating policy in educational institutions. Key concepts addressed in the course will include the dimensions of policy analysis, development of policy objectives, formative and summative policy assessment, and theoretical and empirical research methodologies for policy review. Policy assessment will include an exploration of assessment and ethical decision-making processes. A specific focus of the course will reflect the importance of understanding and balancing both individual and institutional values. Key course research and analysis topics include ethical decision-making, transparency, cultural responsiveness, innovation, and values-driven leadership.

### **EDD 8143 Leading Culturally Responsive Learning Communities**

Educational administrators must recognize and evaluate the appropriate methodologies to promote culturally-responsive programs and diverse learners. In this course, students will review the processes by which educational institutions can assess, plan, and subsequently

tailor educational opportunities to create innovative, collaborative learning communities.

### **EDD 8133 Organizational Design and Management**

The purpose of this course is to assess the inter-departmental functions and collaborative opportunities educational institutions. As administrators seek to fulfill their institutional missions within the greater context of state and national influences, a firm understanding of organization design concepts is paramount to success. Students will review and evaluate modern theories of organizational design as well as theories related to effective collaboration and communication as they relate to transformational leadership in education.

### **EDD 8513 Quantitative Research Methods for Practical Application**

This course serves to provide students with the *quantitative* research skills necessary to complete the final doctoral study. As they seek out new areas for applied research in education, students will

explore the use of fundamental *quantitative* techniques in their work. Course topics will include; descriptive and inferential statistics, hypothesis testing, analysis of variance, correlation, and regression. The course will also include the use of modern statistical software, as it is intended to help students choose the appropriate tools in their own doctoral research.

### **EDD 8523 – Qualitative Methods for Applied Business Research**

This course serves to provide students with the *qualitative* research skills necessary to complete the final doctoral study. As they seek out new areas for applied research in education, students will explore the use of fundamental *qualitative* techniques in their work. Course topics will include; research methodologies, case-study research, focus group studies, interview structure, and observation-based analysis.

### **RES 8513 Residency I – Dissertation Topic and Proposal**

This is the first residency that students will complete during the EdD program. The residency will be structured as a multi-day intensive workshop/seminar. The purpose of the residency is to provide an overview of the dissertation process and offer guidance for students as they begin exploring a dissertation topic and research proposal. The residency will provide students the opportunity to meet their peers, faculty, and staff as they begin considering the focus of their research. Students are not expected to formalize their dissertation topic at this time. Rather, the residency will provide the necessary guidance for students as they begin the topic/committee selection process.

### **RES 8523 Residency II – Dissertation Research Analysis and Findings**

This is the second residency that students will complete during the EdD program. The residency will be structured as a multi-day intensive workshop/seminar. The purpose of the residency is to provide student guidance specific to conducting the research and analysis required to complete the final doctoral study. This residency will offer sessions that guide students through key dissertation milestones including; identifying gaps in knowledge through a literature review, preparing a problem statement, gathering/collecting data, analyzing data, and drawing conclusions. The residency will provide students the opportunity to make formal requests of faculty for committee representation. Students are not expected to complete their dissertation at this time. Rather, the residency will provide the necessary guidance for students as they begin the formal research process.

### **STEM 8103 Equity, Policy, and Social Justice in STEM Education**

The course covers the interactions of diversity, equity, policy, and social justice as related to science education. It also explores the diverse perspectives on purposes/scope of science education. It addresses the consequences for diversity, equity, access, social justice, empowerment, and educational policy.

### **STEM 8203 Learning Theory and Classical Research in STEM Education**

The course includes the theories and classical research in educational fields of science, technology, engineering and mathematics.

### **STEM 8303 Nature of Inquiry in STEM Education**

The course involves the topics on teaching/learning/teacher education through evaluation of national teaching standards, current research, and current cognitive theories of learning in educational fields of science, technology, engineering and mathematics.

### **STEM 8403 Current Issues and Trends in STEM Education**

The course discusses the current issues and trends in STEM education to emphasize the importance of the findings and recommendations from past research reports and spark new thinking and action by researchers, policy leaders, community partners, and other stakeholders.

### **EDD 9003 – Doctoral Study Mentorship**

This is the first course in the dissertation phase of the program. Here, students will work directly with their committee chair to make steady progress toward completion of the doctoral study. In this course, students will; finalize the committee selection process, complete an initial draft of their research problem statement, and conduct a preliminary literature review.

### **EDD 9013 – Doctoral Study Completion - I**

This is the second course in the dissertation phase of the program. Students must continue to work with their committee chair to make progress toward completion of the doctoral study. In this course, students will; finalize the research problem statement, complete a formal literature review, prepare an initial draft of the dissertation proposal.

### **EDD 9023 – Doctoral Study Completion - II**

This is the third course in the dissertation phase of the program. Students must continue to work with their committee chair to make progress toward completion of the doctoral study. In this course, students will; present and defend a formal draft of the dissertation proposal to their committee, and (upon committee approval) begin collecting data for analysis.

### **EDD 9033 – Doctoral Study Completion- III**

This is the final course in the dissertation phase of the program. Students must continue to work with their committee chair to make progress toward completion of the doctoral study. In this course, students will; analyze the data collected, draw conclusions, and present and defend a formal draft of their dissertation findings to their committee, and (upon committee approval) complete the EdD program.