

COURSE DESCRIPTIONS

EDUC 5360	MBE Core Course	ED
	Students will explore and integrate five themes central to the emerging field of Mind, Brain and Education (MBE): development as seen by cognitive scientists and neuroscientists; the conceptual and technical tools used in MBE; and specific educational issues (e.g., dyscalculia, dyslexia, attention deficits, role of emotions etc.). The five themes function as layers students peel back to reveal the complexity of integrating three major disciplines into one field of study.	
EDUC 5361	Introduction to Educational Neuroscience	ED
	This course is designed to provide an introduction to foundational areas of neuroscience such as brain anatomy and brain mapping techniques and its applications to education. Students will study different viewpoints of links between education and neuroscience and develop their own notions of what educational questions might be answered with brain-based techniques.	
EDUC 5362	Neuroscience , Language and Math	ED
	This course will examine the many levels of language including phonetics, phonology, semantics, syntax and pragmatics from both functional and neuroscientific perspectives. This will be closely tied to language acquisition and early language development. The focus on the pre-reading years will provide a solid basis for further study of literacy-related skills and overall learning.	
EDUC 5363	Reading and Development	ED
	This course will focus on the acquisition of reading skills in the typically developing child. Sub-skills and precursors of reading such as visual and phonological processing will be examined from a neurological point of view. This foundational knowledge will then be applied to researching reading difficulties as well as the teaching and learning in the classroom for typically developing students and those with reading difficulties.	
EDUC 5364	Epistemology and Neuroscience	LA
	This course looks at how the brain supports the basic approaches of the mind uses to produce knowledge. In particular we compare the deductive and inductive methods and the neurological correlates that support both forms of knowledge production. Also examined is the role of the frontal cortex in decision making that results in the learner's choices in how to make sense of data.	

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EDUC 5365	Theoretical & Conceptual Models in MBE	ED
	This course is designed for students who wish to connect cognitive science to instructional practice. Students examine the roles that cognitive models in psychology play in learning and in curriculum design. The cognitive models in this course are used to provide a framework for recognizing possible strategies for improving or re-designing curricula, or to begin building lessons	
EDUC 5366	Assessments Methods in MBE	ED
	This course focuses on how testing instruments serve to define and help students reach educational goals set by curricula. In particular we look at how the students' learning is shaped by assessments and how the nature of assessments impacts pedagogy. In particular we look at the educator-assessment interface as a way to understand the learning environment, and the nature of the learning relationships formed while students develop, implement, and evaluate strategies for reaching varied educational goals.	
EDUC 5367	Research Methods in MBE	ED
	This course presents an overview of the process of scientific inquiry in general, while fostering an understanding of research paradigms used by educational practitioners. To meet the course objectives students will examine studies from the cognitive neurosciences and medicine. While these modern methods of inquiry are complex, the findings are nevertheless, often, fairly simple to understand, and easily support the primary goal of the course.	
EDUC 5368	Capstone	ED
	This one to two semester course allows students to build a research project under faculty supervision. The goal of the course is to help students understand the nature and techniques involved in creating useable knowledge in mind, brain and education. Students are expected to identify areas of research to which they wish to contribute, and to conduct their own research with the support of the faculty	