

SPRING 2011 COURSE OFFERING

COGNITIVE DEVICES in Science, Technology, Engineering and Mathematics (STEM) Learning Environments

ENE 69500 Section 006 (CRN 33403)

Explore how people think and learn with cognitive devices, including reasoning with graphical models, manipulative devices, serious games, simulations, computational models, multi-touch input devices, team collaboration/design and more. Participants in this course will learn to evaluate the potential of these devices to support cognition and design new devices to enhance learning of STEM content for young children to adults.

Course Day/Time/Location: Wednesday, 8:30- 11:20, CIVL 2113

Course Credit Hours: 3

INSTRUCTOR:

Sean P. Brophy, School of Engineering Education

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COURSE DESCRIPTION

The goal of this course is to learn about how cognitive devices extend and amplify our ability to accomplish intellectual activities and design the next generation of devices for STEM learning. We will specifically focus on cognitive tools associated with engineering activities and how to blend them with scientific and mathematical contexts. The course seeks a multidisciplinary team of students interested in collaborating together to evaluate and develop new devices to support learning and cognition. Participants will engage in the design of cognitive devices associated with achieving cognitive tasks associated with activities involving science, technology, engineering and mathematics.

Please feel free to contact Dr. Brophy if you have any questions

