



THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

Research Design in Engineering Education

ENGREDU 7780

Credit Hours:

3.00 - 3.00

Course Levels:

Graduate

Course Components:

Lecture

Course Description:

This course is designed to prepare students for productive research in engineering education throughout their graduate experience and professional careers. Research methods are highlighted and explored including quantitative, qualitative, and mixed methods.

Prerequisites and Co-requisites:

Prereq: Grad standing in the College of Engineering.

Course Goals / Objectives:

- Formulate research questions
 - Prepare an assertion outline to support research questions
 - Select a theoretical framework and a research methodology with supporting rationale for each, given set of research questions
 - Perform research in engineering education
 - Deconstruct literature to reveal what it accomplishes for reader
 - Utilize library resources
 - Describe overarching research paradigms
 - Select appropriate methodologies
 - Critique research in engineering education
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Course Topics:

- Research questions in engineering education
 - Assertions in engineering education
 - Overarching research paradigms
 - Research methodologies
 - Library research
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Designation:

Required