Purdue University – Engineering Education
Doctor of Philosophy Requirements

PREREQUESTITES FOR STARTING DISSERTATION RESEARCH **(minimum of 30 course credit hours):** It is highly recommended that a student complete these courses prior to the Readiness Assessment Exam. However, timing of enrollment in these courses is ultimately at the discretion of the student's Advisory Committee.	
Engineering Education Foundations: The purpose of the Foundation requirements is to provide a bridge into this interdisciplinary program by integrating engineering and education concepts, providing breadth and depth of knowledge, and complementing a student's area of specialization. The selection of Foundation courses was guided by the five research areas defined by the Engineering Education Research Colloquies (EERC); viz. Engineering Epistemology, Engineering Learning Mechanisms, Engineering Learning Systems, Engineering Diversity and Inclusiveness, Engineering Assessment Methodologies. The Foundation courses that are currently offered are: • ENE 50101 Foundations of Engineering Education (3 cr. Fall) • ENE 50200 History and Philosophy in Engineering Education (3 cr. Fall) • ENE 50400 Leadership, Policy and Change in STEM Education (3 cr. Spring) • ENE 50500 Theories of Development and Engineering Thinking (3 cr. Spring) • ENE 50600 Content, Pedagogy and Assessment (3 cr. Fall, Spring) • ENE 69000 Seminar in Engineering Education (0 cr. Fall, Spring) As new courses are developed, they will be evaluated by the faculty regarding their designation as Foundation courses	15 credit hours minimum
Secondary Engineering Expertise: The of this requirement is to provide depth of understanding of engineering concepts and complement a student's area of specialization (in particular, engineering concepts that may be a focus of the ENE research activities). Students are required to complete a coherent sequence of graduate courses (500- or 600- level) in an engineering field other than engineering education.	9 credit hours minimum
Research Preparation: The purpose of Research Preparation requirements is to provide depth and breadth of approaches to engineering education research and guide students in the development of their research theses and related areas of specialization. • 50300 Engineering Education Inquiry (3 cr. Fall) • Research Methods Elective I (3 cr.) In consultation with their major professor/Advisory Committee, the student selects an appropriate course(s) offered in the College of Education or elsewhere. EDPS 533 cannot be used to fulfill research methods elective requirements. • Social science statistical methods (3 cr.) in consultation with their major professor/Advisory Committee, the student selects an appropriate course(s). It is anticipated that an ENE statistics course will be offered in the future.	9 credit hours minimum
ENGINEERING EDUCATION SPECIALIZATION: The purpose of the Specialization requirement is to develop depth of knowledge in one areas of engineering education (6 cr. hours minimum) plus advanced research methods (3 cr. hours minimum) appropriate to the student's research area.	
• Specialization (minimum 6 cr. hours). A specialization might be in one of the five EERC Areas (see list under Engineering Education Foundations), must consist of 500-600 level courses, and is not restricted to ENE course offerings (i.e., students may take courses in other programs). • Research Methods Elective II (minimum 3 cr. hours). A selection of courses is available for student to fulfill this requirement, many of which may be offered in the College of Education. EDPS 533 cannot be used to fulfill research methods elective requirements.	6 credit hours minimum 3 credit hours minimum