# ITDE - INTERDISCIPLINARY ENGR (ITDE)

**ITDE 201 Foundations of Interdisciplinary Engineering**  
Credit 1. 1 Lecture Hour.  
Success strategies for the interdisciplinary approach to engineering problems; ethical issues in engineering and formation of ethical codes in the interdisciplinary context; effective communications for engineering practice; formation of professional cohorts and networks.  
**Prerequisites:** Admission to major degree sequence in interdisciplinary engineering.

**ITDE 285 Directed Studies**  
Credits 0 to 6. 0 to 6 Other Hours.  
Directed studies within interdisciplinary engineering.  
**Prerequisites:** Sophomore classification and approval of interdisciplinary engineering director or delegate.

**ITDE 289 Special Topics in...**  
Credits 1 to 4. 1 to 4 Lecture Hours.  
Selected topics in an identified area of interdisciplinary engineering.

**ITDE 291 Research**  
Credits 1 to 6. 1 to 6 Other Hours.  
Research conducted under the direction of faculty member in interdisciplinary engineering.  
**Prerequisites:** Sophomore classification and approval of interdisciplinary engineering director or delegate.

**ITDE 301 Interdisciplinary Engineering Experimentation**  
Credit 1. 0 Lecture Hours. 3 Lab Hours.  
Role of experimentation across engineering problems; data collection, analysis and interpretation; use of engineering judgment to draw conclusions; instrumentation and procedures used in a variety of engineering contexts; presentation of experimental findings in written and oral formats.  
**Prerequisite:** Grade of C or better in ITDE 201 or approval of instructor.

**ITDE 399 High Impact Experience for Interdisciplinary Engineers**  
Credits 0. 0 Other Hours.  
Participation in an approved high-impact learning practice; reflection on professional outcomes from engineering body of knowledge; documentation and self-assessment of learning experience at mid-curriculum point. Must be taken on a satisfactory/unsatisfactory basis.  
**Prerequisites:** ITDE major; junior or senior classification.

**ITDE 401 Interdisciplinary Engineering Capstone Design I**  
Credits 3. 2 Lecture Hours. 3 Lab Hours.  
Instruction and practice in the design process applied to an interdisciplinary design project including establish the customer need; determination of requirements in terms of function, what, and performance, how well; development of alternative design concepts; performance of trade-off studies among performance, cost and schedule; embodiment and detail design; iteration of the above steps; major interdisciplinary design project.  
**Prerequisite:** Grade of C or better in ITDE 301; senior classification; approval of instructor.

**ITDE 402 Interdisciplinary Engineering Capstone Design II**  
Credits 2. 1 Lecture Hour. 3 Lab Hours.  
Extended interdisciplinary design development process; project management; product-market fit and customer search considerations; manufacturing detailed design specifications; failure modes; applications of codes and standards; selection of design margins; product, component, development guidelines; intellectual property, product liability and ethical responsibility.  
**Prerequisite:** Grade of C or better in ITDE 401.

**ITDE 485 Directed Studies**  
Credits 0 to 6. 0 to 6 Other Hours.  
Directed studies within interdisciplinary engineering.  
**Prerequisites:** Junior or senior classification and approval of interdisciplinary engineering director or delegate.

**ITDE 489 Special Topics In...**  
Credits 1 to 4. 1 to 4 Lecture Hours.  
Selected topics in an identified area of interdisciplinary engineering. May be repeated for credit.

**ITDE 491 Research**  
Credits 1 to 6. 1 to 6 Other Hours.  
Research conducted under the direction of faculty member in interdisciplinary engineering.  
**Prerequisites:** Junior or senior classification and approval of interdisciplinary engineering director or delegate.

**ITDE 499 Degree Plan Approval for ITDE**  
Credits 0. 0 Other Hours.  
Successful completion of approved Bachelor of Science in Interdisciplinary Engineering degree plan.  
**Prerequisites:** ITDE major; junior or senior classification; ENGR 402 or concurrent enrollment.