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; must be taken in graduating semester. Must be taken on a satisfactory/unsatisfactory basis. **Prerequisites:** Grade of C or better in ENGR 402 or concurrent enrollment; ITDE major; junior or senior classification.