INNOVATION, TECHNOLOGY AND DESIGN (ITD)

ITD 120. Design Challenges 1 & 2. 6 Credit Hours.
Design Challenges 1 and 2 use problem-based learning and the design process to introduce students to explore a question related to a problem on campus. Students are required to refine the assigned problem to something relatively simple and tractable, and then research and propose solutions. Students will develop skills around collaboration, problem scoping, and research. Students will engage in workshops and activities emphasizing teamwork and collaboration.
Components: EXP.
Grading: GRD.
Typically Offered: Fall.

ITD 134. Design Challenges 3 & 4 (Empathize and Design). 6 Credit Hours.
This course is the second in a series of courses whereby students will employ Design Thinking methodology. More specifically, it hones in on the second and thirds steps of design thinking: developing empathy and a point of view. It provides students with skills related to understanding and defining the social and emotional components of complex problem solving. Students will "listen with their eyes" in order to identify a problem to solve and practice techniques in order to better understand the user's state of mind and point of view (POV).
Components: EXP.
Grading: GRD.
Typically Offered: Spring.

ITD 199. Internship 1. 1-6 Credit Hours.
Practical application of classroom theory through employment with firms and civic organizations offering positions consistent with programs objectives. The course will introduce Project Management and it will be woven throughout the summer internship in a final project presentation. All students enrolled in this course will gain practical experience and application of technical communication including written, oral and visual presentation skills. The work experiences will enhance the classroom experience and provide an insight to the application of previous design challenges. Innovation, Design and Technology students only.
Pre-requisites: ITD 134 and WRS 107.
Components: PRA.
Grading: GRD.
Typically Offered: Fall, Spring, & Summer.

ITD 220. Ethics, Equity and Responsibility. 3 Credit Hours.
Students will learn how to use digital tools, novel technologies, and machines to benefit others while taking responsibility for their appropriate use and recognizing misuses of communications and other technologies. During the course, students will learn to recognize that the same technologies are not available to everyone because of differences in economic, social, political, and cultural factors. The course introduces mechanisms to ensure that we do not widen inequalities through digital technologies. During class exercises students will discuss different viewpoints, understand complexities in technology transfer from one society to another, and consider the consequences of unethical uses of technology.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

ITD 256. Design Challenges 5 & 6. 6 Credit Hours.
Design Challenges 5 and 6 are focused on the Ideate and Prototyping stages of the design thinking process. For Design Challenge 5, students are challenged to support arts and culture organizations in developing solutions to their most pressing problems, while employing ideation techniques inspired by creative industries. For design challenge 6, students will engage with a private sector organization or civic partner who is working to develop prototype solutions that address an issue related to environmental sustainability.
Pre-requisites: ITD 120 and ITD 134.
Components: EXP.
Grading: GRD.
Typically Offered: Fall.

ITD 278. Design Challenges 7 & 8. 6 Credit Hours.
For the final two design challenges before the Capstone project, students are tasked with focusing on improving their skills within the Test and Synthesis phases of the design thinking process. The first half of the semester is dedicated to a design challenge in which students gain practice in testing their design solutions with users. The second half will be focused on synthesizing student learnings from all past projects to deliver a project on social inequality which demonstrates knowledge in all stages of the design thinking process (empathize, define, ideate, prototype, test, synthesize).
Pre-requisites: ITD 120 and ITD 134 and ITD 256.
Components: EXP.
Grading: GRD.
Typically Offered: Spring.

ITD 299. Internship 2. 1-6 Credit Hours.
Practical application of classroom theory through employment with firms and civic groups offering positions consistent with programs objectives.?
The course will build on Project Management and it will be woven throughout the internship in a final project presentation. All students enrolled in
this course will gain practical experience and application of technical communication including written, oral and visual presentation skills. The work
experiences will enhance the classroom experience and provide an insight to the application of previous design challenges. Innovation, Design and
Technology students only.
Pre-requisite: ITD 199.
Components: PRA.
Grading: GRD.
Typically Offered: Fall, Spring, & Summer.

ITD 310. Capstone 1. 6 Credit Hours.
This course is the first half of the culminating experience for students in the B.S. in Innovation, Technology, and Design. Students bring together all
of the skills they have acquired over the preceding courses to identify a problem, task, or research project to pursue independently or collaboratively.
Students must develop a learning plan and then complete the project. All students must complete an academic write-up of their project, in addition
to any deliverables (e.g. a prototype, a process, a business model) they might develop. Students will be supervised by a faculty member over
two semesters who will advise and evaluate their Capstone. Students are encouraged but not required to partner with private or public sector
organizations in the pursuit of their Capstone projects.
Pre-requisite: ITD 256.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

ITD 320. Capstone 2. 6 Credit Hours.
This course is the second half of the culminating experience for students in the B.S. in Innovation, Technology, and Design. Students bring together all
of the skills they have acquired over the preceding courses to identify a problem, task, or research project to pursue independently or collaboratively.
Students must develop a learning plan and then complete the project. All students must complete an academic write-up of their project, in addition
to any deliverables (e.g. a prototype, a process, a business model) they might develop. Students will be supervised by a faculty member over
two semesters who will advise and evaluate their Capstone. Students are encouraged but not required to partner with private or public sector
organizations in the pursuit of their Capstone projects.
Pre-requisite: ITD 310.
Components: LEC.
Grading: GRD.
Typically Offered: Spring.