ME/IE 444/445 (IPD)

Interdisciplinary Product Development

is open to Seniors for 2019-2020

Engineering, graphic design, marketing, and public health students work together in teams to develop innovative solutions with a sponsoring partner:

IPD is a year-long curriculum in Interdisciplinary Product Development at UIC that partners with companies to generate innovation for the partner and provide a real-world educational experience for students from diverse disciplines including Business, Design, and Engineering.

The IPD courses focus on the early stages of the product development process.

Project teams are directed in conducting in-depth human-centered research and developing targeted, innovative concepts and prototypes for both physical and digital solutions.

Instructor: Michael Scott is on sabbatical for the academic year 2019-2020. The IPD course in MIE will be taught by Matthew Alonso. His bio is included below.

Course Content (What will you learn?): Industrial Engineering seniors are especially encouraged to apply for this course. OSF Healthcare is interested in developing solutions to improve the health of the people they serve, with an emphasis on rural, poor, and elderly populations. Developing innovative solutions requires understanding people, understanding design, understanding systems, and understanding the financial environment. From a technical point of view, healthcare delivery solutions require both data analysis and computer programming, but engineering alone is not sufficient to identify and solve the relevant problems. In this class, you will learn how to work with students from
non-engineering fields to identify what users need and develop solutions to address the real problems.

**Sponsor:** The course works with a sponsoring partner company each year. Our sponsor for 2019-20 is the Order of Saint Francis Healthcare. Most sponsors are for-profit companies that sell products to consumers; OSF is a non-profit healthcare provider with a service mission.

**Timing:** This is a year-long course; students must commit to take the course both semesters on **Monday afternoons from 2:00-5:00.** It is strongly suggested to keep the evening free after class if possible. Classes meet at the UIC Innovation Center at 1240 W. Harrison. (If you end up with a required class in Spring 2020 that conflicts with IPD, we can work that out.)

**Undergraduate Credit (both IE and ME):**
**NOTE: THIS HAS CHANGED FROM PAST YEARS.** ME/IE 444 and 445 together cover the Senior Design requirement, but they do NOT also provide an additional technical elective.

**How to Apply:** We can only take a limited number of students. If you are interested in the class, please send an email to Dr. Scott (mjscott@uic.edu) giving:
1) your expected date of graduation
2) your UIN
3) your major, and
4) a statement that you understand that the course is a year-long commitment on Monday afternoons, that the technical content includes data analytics and programming, and that there is a significant amount of non-technical collaboration with other disciplines. You may be asked to provide some evidence of your interest and ability in these areas.

**All requests received by the end of the day on Monday, July 8 will receive full consideration. This will not be a strict lottery, I may consider interest and ability in data analytics and programming.**

The IPD website at [http://www.ipd.uic.edu](http://www.ipd.uic.edu) has some information from past years.

Please contact Dr. Scott ([mjscott@uic.edu](mailto:mjscott@uic.edu)) with any questions.
Matthew P Alonso, Ph.D

Matthew Alonso enjoys engaging students, leading them through projects, encouraging them to pursue entrepreneurship, and developing their creativity. His participation in the NSF Innovation Corps program and several business competitions helped shape his teaching style around entrepreneurship and idea generation. In addition, he used IPD principles as a student at UIUC to develop and explore the market for his company.

Matthew co-founded Sun Buckets, an organization dedicated to solving the global cooking problem by developing a portable solar thermal energy storage system without fuel, fire or emissions. In addition, he has conducted research in biological, multi-material, and micro additive manufacturing systems.