

College of Engineering

Integrated Product and Process Design Program

Engineering students of all disciplines seeking to enhance their qualifications through a practice-oriented program should consider enrolling in the Integrated Product and Process Design Program. The goal of this program is to have students in their senior year practice engineering on real, industry-sponsored design projects to improve their engineering education and enhance their opportunity for employment. The program provides both classroom and laboratory experience. Through this program, students will learn:

- how fundamental engineering science is relevant to effective product and process design,
- that design involves not just product function but also producibility, cost, schedule, reliability, customer preference and life cycle issues
- how to complete projects on time and within budget
- that engineering is a multidisciplinary effort.

Working in small multidisciplinary project teams, students will get important practical experience in teamwork and communication as well as in developing their leadership, management and people skills. Each team will be coached by a faculty member and will interface with liaison engineers of the companies that sponsor design projects.

The Integrated Product and Process Design program requires six hours of course work and is offered as a sequence of two three-credit courses during fall and spring of the senior year. These two courses are pre-approved substitutes for a technical elective and for capstone courses (senior design).

ELIGIBILITY

To be eligible to apply for the IPPD Program, the applicant must:

- 1) have completed the prerequisites for his/her major
- 2) be a senior who is graduating in a spring or summer term
- 3) not have more than 30 semester hours left to be complete for graduation¹
- 4) attach his/her résumé to the application

<http://www.ippd.ufl.edu>

¹ Minor variations are negotiable

Prerequisites/Corequisites

Agricultural and Biological Engineering (any two of the following three courses)

- ABE 3612C Heat and Mass Transfer in Biological Systems
- ABE 3652C Physical and Rheological Properties of Biological Materials
- ABE 4231C Irrigation and Drainage Engineering

Business Administration (MAN 4504 and one of the remaining three courses)

- MAN 4504 Operations Management
- FIN 3408 Business Finance
- MAR 3023 Principles of Marketing
- ECO 3100 Managerial Economics

Chemical Engineering

- ECH 3203 Chemical Operations 1
- ECH 4604 Process Economics

Computer & Information Science & Engineering (CEN, CSC, CLS degrees)

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| CEN 3031 | Introduction Software Engineering | CDA 3101 | Introduction to Computer Organization |
| CIS 3020 | Introduction to Computer & Information Science | COP 3530 | Data Structures & Algorithms |
| COT 3100 | Application of Discrete Structures | COP 4600 | Operating Systems |

Electrical & Computer Engineering (EE & CEE degrees)

- EEL 3135 Discrete-Time Signals and Systems
- EEL 3304C Electronic Circuits 1
- EEL 3701C Digital Logic and Computer Systems
- COP 3530 Data Structures & Algorithms (CEE degree only)

EE Degree Corequisites:

- EEL XXXX (3000 level or higher EEL course)
- EEL 4XXX (4000 level EEL course)

CEE Degree Corequisites (pick 2):

- EEL 4712C Digital Design
- EEL 4744C Microprocessor Applications
- COP 4600 Operating Systems

Environmental Engineering (two of the following four courses)

- ENV 4351 Solid & Hazardous Waste Management
- ENV 4121 Air Pollution and Control Design
- ENV 4514C Water and Wastewater 2
- ENV 4561 Hydraulic Systems Design

Industrial & Systems Engineering

- EIN 4365 Facilities Design and Material Handling
- ESI 4221C Industrial Quality Control (Corequisite)
- EIN 4354 Engineering Economy

Materials Science & Engineering

- EMA 3010 Materials
- EMA 4717 Materials Selection and Failure Analysis

Mechanical and Aerospace Engineering

- EGM 3520 Mechanics of Materials
- EML 3301C Instrumentation & Measurements Lab

Aerospace Engineering Degree

- EAS 4101 Aerodynamics

Mechanical Engineering Degree

- EML 3005 Mechanical Engineering Design