

Cover Sheet: Request 14818

EGN 4XXX Integrated Product and Process Design 2

Info

Process	Course New Ugrad/Pro
Status	Pending at PV - University Curriculum Committee (UCC)
Submitter	Johannes Van Oostrom oostrom@ufl.edu
Created	3/18/2020 1:29:37 PM
Updated	4/13/2020 9:36:21 AM
Description of request	Create a new course IPPD 2 to coordinate better the interdisciplinary capstone experience.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	ENG - Engineering - General 011940001	Johannes Van Oostrom	Approved by EED curriculum committee on 3/20/2020	3/20/2020
No document changes					
College	Approved	ENG - College of Engineering	Heidi Dublin	Approved by the HWCOE Curriculum Committee and Faculty Council	4/13/2020
No document changes					
University Curriculum Committee	Pending	PV - University Curriculum Committee (UCC)			4/13/2020
No document changes					
Statewide Course Numbering System					
No document changes					
Office of the Registrar					
No document changes					
Student Academic Support System					
No document changes					
Catalog					
No document changes					
College Notified					
No document changes					

Course|New for request 14818

Info

Request: EGN 4XXX Integrated Product and Process Design 2

Description of request: Create a new course IPPD 2 to coordinate better the interdisciplinary capstone experience.

Submitter: Johannes Van Oostrom oostrom@ufl.edu

Created: 3/18/2020 1:23:08 PM

Form version: 1

Responses

Recommended Prefix EGN

Course Level 4

Course Number XXX

Category of Instruction Advanced

Lab Code None

Course Title Integrated Product and Process Design 2

Transcript Title IPPD 2

Degree Type Baccalaureate

Delivery Method(s) On-Campus

Co-Listing No

Effective Term Earliest Available

Effective Year Earliest Available

Rotating Topic? No

Repeatable Credit? No

Amount of Credit 3

S/U Only? No

Contact Type Regularly Scheduled

Weekly Contact Hours 3

Course Description A two-semester-course sequence in which multidisciplinary teams of engineering and business students partner with industry sponsors to design and build authentic products and processes—on time and within budget. Working closely with industry liaison engineers and a faculty coach, students gain practical experience in teamwork and communication, problem solving and engineering design, and develop leadership, management and people skills.

Prerequisites EGN 4XXX Integrated Product and Process Design 1

Co-requisites None

Rationale and Placement in Curriculum Interdisciplinary capstone design course. Contents has been taught for over 20 years, but typically in a variety of courses depending on the department. This proposal aims to offer the contents under one course number.

Course Objectives

- Learn effective product and process design elements on a real-life project: Function & Producibility; Cost (within budget); Schedule; Reliability; Customer Preference; Life Cycle
- Function successfully in multidisciplinary teams: 4-8 student members, faculty coach, and sponsor liaison; Classroom & laboratory experience as a two semesters sequence totaling 6-credit; Students, coaches, sponsors, liaisons from different fields; Practical project experience; Teamwork; Professional practice experience
- Exercise Professionalism (please, check out the Expectations section of this syllabus): Leadership, management and people skills; Multi-criterion decision-making techniques; Effective business meetings with remote clients; Professional presentation and writing skills; Professional communication
- Satisfy the following ABET outcomes: An ability to communicate effectively with a range of audiences; An ability to function effectively on teams that establish goals, plan tasks, meet deadlines, and analyze risk and uncertainty.
- Meet Discipline Capstone Design Objectives: As this course is replacing your senior design course, a subproject(s) might be required to fulfill your discipline's senior design objectives;

Subproject(s) will be topically aligned and integrated with your IPPD project.

Course Textbook(s) and/or Other Assigned Reading 1. IPPD Engineering Design Handbook
Our core manual details the deliverables for the IPPD course, expectations for assignments, and details on the IPPD course. It covers the entirety of the integrated design process, from concept evaluation to manufacturing plans and business cases.

2. New Engineer's Professional Primer

Serves as a reference for the soft skills necessary to be an effective engineer. This manual also contains information on mandatory training programs required for all IPPD students.

3. IPPD Administrative Manual

Explains common administrative functions of the IPPD program, such as purchasing and travel procedures, laboratory safety policies, and other interactions between IPPD staff and students.

Weekly Schedule of Topics Week 1: IPPD review, SLDR reviews, QRB 1 intro

Week 2: Qualification Review Board 1 (QRB1)

Week 3: Leadership and Credibility in Engineering, QRB 1 review, Prototype Testing Assessment

Week 4: Storytelling, Final Design Review (FDR) intro

Week 5: Professional Etiquette & Salary Negotiation, Project Storyboard, Tech Demo Plan, Risk Management

Week 6: Project Development review, Student Progress review

Week 7: Inclusion, Diversity & Implicit Bias, Minor Report intro, QRB 2 intro

Week 8: Qualification Review Board 2 (QRB2)

Week 9: Industrial Development Guest Lecture, Project Demo Video, PID intro

Week 10: Prototype Inspection Day (PID)

Week 11: Leadership & Recognition in Engineering, PID review

Week 12: Effective Poster Presentations, Project Demo Video review, PR-FDR, FDR & Final Deliverables

Week 13: Project Development review

Week 14: Peer Review of the Final Design Review (PR-FDR)

Week 15: Final Design Review (FDR)

Grading Scheme Door Code Assignments 0%

Attendance 5%

Weekly Status Memos 3%

Quizzes and Individual Assignments 3%

Group Assignments, Response Memos and QRBs 4%

Final Design Review

Including minor, draft and final report and presentation 15%

Coach Individual Assessment 30%

Coach Team Assessment 40%

Instructor(s) Dr. Edward Latorre-Navarro, IPPD Interim Director

Each team is assigned a faculty coach

Attendance & Make-up Yes

Accommodations Yes

UF Grading Policies for assigning Grade Points Yes

Course Evaluation Policy Yes