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# The University of Georgia

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College of Engineering

11 February 2015

To: Interim Assoc. Dean Ramana Pidaparti

RE: College of Engineering Experiential Learning Proposal

Dear Ramana:

The College of Engineering Curriculum Committee has reviewed and approves of the implementation plan for experiential learning within the college contained in the file "CENGR-Experiential Learning2015Feb9.pdf".

Sincerely,

Thomas Lawrence  
Mechanical Engineering program coordinator and  
Chair, CENGR Curriculum Committee

## **Experiential Learning in Engineering – Implementation Plan (draft)**

The College of Engineering emphasizes design/project experience within the curriculum as a means to implement experiential learning requirement. Within each program curriculum, students take a specific sequence of courses (from freshman to senior) related to design experience to be knowledgeable about their profession and the challenges. Within the College of Engineering, every student will at least take three-to-four design-related courses including the capstone design (see attached Table) that will be required to fulfill the experiential learning requirement of the College. Academic advisors, who oversee the student's progression towards graduation, will serve as the certification officers for this program. Upon reviewing student transcripts for graduation checks through ATHENA/BANNER, they will be able to identify the students who have completed at least two semesters of design related courses in the curriculum to meet the experiential learning requirement.

Additional ways that a student can take part in experiential learning within the College includes participating in a cooperative learning experience, undergraduate research through CURO, and/or study abroad programs. Students will meet with the Director of Experiential Programs within the College during their first year to determine which experiences (Design; Co-op/internship; CURO; and Study Abroad) they would like to take part in during their academic career. Based on student interests and working with a faculty advisor as well as the Director for Experiential Programs, student is advised and monitored to meet the experiential learning requirement satisfactorily. In this case, the Director for Experiential Programs will act as certification officer working the faculty advisor to see the student's experience met the experiential learning requirement.

**Existing Curriculum**

(**Agricultural Eng**, **Biochemical Eng**, **Biological Eng**, **Civil Eng**, **Computer Systems & Electrical Eng**, **Environmental Eng**, **Mechanical Eng**, **All Eng**)

Freshman	Sophomore	Junior	Senior
<b>Agricultural Engineering</b>			
ENGR 1920 - Introduction to Engineering	ENGR 2920 - Design Methodology – Systems Approach	ENGR 4660 - Sustainable Building Design	ENGR 4920 - Engineering Design Project
<b>Biochemical Engineering</b>			
ENGR 1920 - Introduction to Engineering	BCHE 2910 - Introduction to Biochemical Engineering Design	BCHE 3180 - Biochemical Engineering Lab	BCHE 4920 - Biochemical Engineering Capstone Design
<b>Biological Engineering</b>			
ENGR 1920 – Introduction to Engineering	ENGR 2920 - Design Methodology – Systems Approach		ENGR 4920 - Engineering Design Project
<b>Civil Engineering</b>			
ENGR 1920 - Introduction to Engineering (Civil Engineering Section)	CVLE 221 - Principles of Surveying and Transportation	ENGR 3610 - Structural Design	CVLE 4910 and 4920 - Civil Engineering Capstone Design Project
<b>Computer Systems &amp; Electrical Engineering</b>			
ELEE 1030 - Intro. To Elec. Engr	CSEE 2920 - CSE Design Methodology	ENGR 4230 - Sensors and Transducers	CSEE 4920 - Senior Design
CSEE 2200 - Introduction to CSE I		CSEE 4230 - Embedded Systems	
CSEE 2210 - Introduction to CSE II			
<b>Environmental Engineering</b>			
ENVE 1010 - Synthesis and Design Studio	ENVE 2920 – Environmental Engineering Design Methodology	ENVE 3320 - Environmental Engineering-Urban Systems and Lab	ENVE 4910 - Environmental Engineering Senior Design I
			ENVE 4920 - Environmental Engineering Senior Design II
<b>Mechanical Engineering</b>			
MCHE 1940 - Design Studio & Professional Practices	MCHE 2990 – Engineering Systems in Society	MCHE 3990 – Manufacturing and Design Studio	MCHE 4910 - Capstone Design I
			MCHE 4920 - Capstone Design II
<b>All Engineering</b>			
	ENGR 3900 - Cooperative Work Experience	ENGR 4970 - Directed Reading and/or Projects in Engineering	ENGR 4990 - Undergraduate Thesis in Engineering
	ENGR 3910 - Cooperative Work Experience		
	ENGR 4960/4960H - Undergraduate Research in Engineering		