Faculty Course Self-Assessment

Instructor: David Bowen
Course: INDE 492 Senior Design Project
Semester: Spring 2024
Enrollment: 18
Text: None

Course Summaries

In this course, industrial engineering skills and engineering design concepts, including development of alternative solutions and economic analysis of alternatives, are utilized to complete a project.

The course involves working with an organization and aims to: develop and expand technical writing and presentation skills through class discussions, report writing and presentations; to develop and expand team skills through identification, development execution of team projects and through team building exercises; and to utilize engineering design process and project management techniques to complete their projects. Engineering ethics are introduced through case studies.

Associated Program Outcomes

(c) Design system/component/process
(d) Function on multidisciplinary teams
(e) Solve engineering problems
(f) Understand Professional/ ethical responsibilities
(g) Communicate
(h) Understand global/ societal context
(i) Recognize life-long learning
(k) Use engineering techniques/skills/tools

Summary of Student course performance:

This cohort included 18 Industrial Engineering seniors. Students performed well in the course, with an average grade of A- (3.67). The distribution of grades was as follows: 6 A, 9 A-, 2 B and 1 B-. One team had some difficulties as one team member had pronounced communication difficulties. All teams performed well overall.

Summary of Faculty experience & observations:

This course depends a lot on the industry sponsors and on the ability of the student teams to get along with each other and with other teams. This offering had overall good class chemistry where students respected each other, provided helpful comments, critiques and encouragement. One team had to deal with a team member that had difficulties communicating in both written and oral modalities.

Recommended Changes

Recommended changes based on student course performance:
Emphasize professional behavior in all its aspects. Perhaps introduce role playing to anticipate/practice professional behavior in stressful situations.

Recommended changes based on student evaluations and comments:
None

Recommended changes based on faculty experience & observations:
None

Summying to

Following are the Tools Used to Assess Program Outcomes in this Course

SENIOR PROJECT EVALUATION

Project Name: _____   Evaluator Name: _____

Circle the number representing level of competence demonstrated by the project team's presentation.

Criterion	Competence Level							
System	System was not designed				System design w/	Substantial system design		
3	4	5	6	7	8		1	2
Ability to Work in Teams	Group did some work as a team but some were unaware of aspects of the project		Group did most work as a team and are knowledgeable in most aspects of the project		Group did all work as a team and are knowledgeable in all aspects of the project		Group did not exhibit any ability to work as a team	
2	3	4	5	6	7	8		1
	Analysis tools were used	Minimal analysis was performed		Analysis was performed but disorganized Problems		The problem and information were analyzed Analysis and results used		Analysis and results used Problems were missed
7	8			1	2	3	4	5	6
Professionalism	All group members degree of professionalism		Group displayed -ism and mentioned	Group exhibited some professionalism and		Group exhibited some professionalism	Most group members unethical and unprofessional	