

DEPARTMENT OF OCEAN AND MECHANICAL ENGINEERING

Florida Atlantic University

Evaluation of EOC4801 Ocean Engineering Senior Year Capstone Design 2010-11

Instructor: Dr. Karl von Ellenrieder

Evaluators: Dr Karl Stevens, Dean of the College of Engineering and Computer Science
Dr. Mohammad Ilyas , Chair, Department of Ocean and Mechanical Engineering
Dr. Joe Cuschieri, Lockheed Martin Corporation, Riviera Beach, Florida
Kelly Cooper, Office of Naval Research
Joe Lambiotte, Naval Surface Warfare Center
Dr. Paul Rushfeldt, Lockheed Martin Corporation
+ 2 Department Faculty

Design Projects:

1. Sea Base Aerial Support Vehicle
2. Coastal Renewable Energy Structure

OUTCOMES ASSESSED

- 1 (ABET:a) - Knowledge of basic science, mathematics and engineering subjects
- 2 (ABET:b) - Knowledge of experimental methods and field study
- 3 (ABET:k) - Programming and software skills
- 4 (ABET:c) - Ability to carry out engineering design
5. (ABET:c,h,j) - Understanding of economic, societal and political impacts
6. (ABET: d) - Ability to function as a team
7. (ABET:g) - Ability to communicate effectively
8. (ABET: k) - Preparation for practice in Ocean Engineering

Evaluation Scale:

0 ----- 5 ----- 10
Poor Satisfactory Excellent

SUMMARY OF THE ASSESSMENT

Outcome	Number of Evaluations With “Poor” grade (ie., score of 0)	Number of Evaluations with “Satisfactory” grade (ie. score of 5)	Number of Evaluations with “Excellent” grade (ie. score of 10)
1	0	4	12
2	0	6	10
3	0	8	8
4	0	4	12
5	0	6	10
6	0	1	15
7	0	5	11
8	0	3	13

Summary of the Assessment Findings:

1. Assessment shows that all the outcomes have been achieved to a level of “satisfactory” or above and thereby meeting the criteria for performance.
2. 15 of 16 evaluations ranked achievement of Outcome 6 (Ability to function as a team) as excellent.
3. On the other extreme, Only 8 of 16 evaluations ranked achievement of Outcome 3 (Programming and software skills) as excellent. Other 8 have ranked the achievement of this outcome as satisfactory. The undergraduate committee and the course instructor may make a note this in order to find ways to improve the achievement of this outcome in the future.
4. Again, outcome 5 relating to economic, societal and political impacts, received 10 evaluations as excellent and 6 as satisfactory. Similarly outcome 2, relating to ability on experiments, received 10 excellent evaluations and 6 satisfactory evaluations. The undergraduate committee may make a note of this and see if the achievement of this outcome can be further improved.
5. The UG committee and design instructor may compare this year results with that from previous years to see if the findings have remained consistent or changes made since previous years have led to improvements.

Document prepared by

P. Ananthakrishnan

Department of Ocean and Mechanical Engineering

Reporter of Ocean Engineering Assessments to IEA.