# 2011-12 EVALUATION OF EOC4804 SENIOR OCEAN ENGINEERING DESIGN PROJECT

**Design Team Projects**

1. ARES – Energy Scavenging Ship
2. VERTIPRO – Vertical Profiler
3. VBASS – Vision Based Unmanned Surface Vehicle

**EVALUATORS (Internal)**

1. Dr. Manhar Dhanak, Department of Ocean and Mechanical Engineering, FAU
2. Dr. Stewart Glegg, Department of Ocean and Mechanical Engineering, FAU
3. Dr. Edgar An, Department of Ocean and Mechanical Engineering, FAU
4. Dr. R. Granata, Department of Ocean and Mechanical Engineering, FAU
5. Dr. P. Beaujean, Department of Ocean and Mechanical Engineering, FAU
6. Dr. F Presuel-Moreno, Department of Ocean and Mechanical Engineering, FAU
7. Dr. M. Madani, Adjunct Faculty, Department of Ocean and Mechanical Engineering, FAU
8. Dr. J. vanZwieten, SNMREC, Florida Atlantic University
9. D. Briggs, Adjunct Faculty (retd.) Department of Ocean and Mechanical Engineering, FAU
10. Dr. Karl von Ellenrieder (responsible for individual assessments and course grading)

**EVALUATORS (External – Industry & Navy)**

1. Kevin Meier, Naval Surface Warfare Center, Carderock Division, US Navy
2. Bill Venezia, Naval Surface Warfare Center, Carderock Division, US Navy
3. Patric Hudson, Naval Surface Warfare Center, Carderock Division, US Navy
4. Eric Dykes, Naval Surface Warfare Center, Carderock Division, US Navy
5. Dr. Frank Leban, Office of Naval Research, US Navy
6. Dr. Paul Rushfeldt, Lockheed Martin Corporation
7. Joe Lambiote, Lockheed Martin Corporation
8. Floria Clements, Lockheed Martin Corporation
9. Nicolas Agostinelli, Lockheed Martin Corporation
10. Jim Whitney, Lockheed Martin Corporation

## EVALUATION/ASSESSMENT SUMMARY

**Outcome 1:** A broad knowledge of fundamental and applied engineering subjects: fluid and solid mechanics, dynamics, hydrostatics and buoyancy, thermodynamics, heat transfer, engineering materials, strength of materials, statistical methods, data analysis, oceanography, ocean wave mechanics, underwater acoustics, dynamic systems and control theory, networks and electronics, electrical machines, and computer programming. **[Item a.** in the assessment form.]

**Number of evaluations with "excellent" ranking: 36 out of 60 → 60%**

**Number of evaluations with "satisfactory" ranking: 15 out of 60 → 25 %**

**Number of evaluations with "poor" ranking: 0 %**

**Number of evaluations that did not assess this outcome (remaining = 15%)**

**Summary: 85% of assessments are "satisfactory" or above.**

---

**Outcome 2:** An ability to identify, formulate, and solve engineering problems by applying a knowledge of mathematics, science and engineering. **[Item e.** in the assessment form]

**Number of evaluations with "excellent" ranking: 36 out of 60 → 60%**

**Number of evaluations with "satisfactory" ranking: 12 out of 60 → 20 %**

**Number of evaluations with "poor" ranking: 0 %**

**Number of evaluations that did not assess this outcome (remaining = 20%)**

**Summary: 80% of assessments are "satisfactory" or above.**

---

**Outcome 3:** An ability to design an engineering system or component to meet desired needs and requirements using appropriate engineering tools and techniques. **[Item c.** in the assessment form]

**Number of evaluations with "excellent" ranking: 34 out of 60 → 57%**

**Number of evaluations with "satisfactory" ranking: 18 out of 60 → 30 %**

**Number of evaluations with "poor" ranking: 0 %**

**Number of evaluations that did not assess this outcome (remaining = 13%)**

**Summary: 87% of assessments are "satisfactory" or above.**

---

**Outcome 4:** An ability to function effectively in teams. **[Item d.** in the assessment form]

**Number of evaluations with "excellent" ranking: 47 out of 60 → 78%**

**Number of evaluations with "satisfactory" ranking: 5 out of 60 → 8 %**

**Number of evaluations with "poor" ranking: 0 %**

**Number of evaluations that did not assess this outcome (remaining = 13%)**

**Summary: 87% of assessments are "satisfactory" or above.**

---

An ability to communicate effectively topics in engineering and science.

**Outcome 5:** An ability to communicate effectively topics in engineering and science.
**[Item g.** in the assessment form]

**Number of evaluations with "excellent" ranking: 44 out of 60 → 73%**

**Number of evaluations with "satisfactory" ranking: 9 out of 60 → 15%**

**Number of evaluations with "poor" ranking: 0 %**

**Number of evaluations that did not assess this outcome (remaining = 12%)**

**Summary: 88% of assessments are "satisfactory" or above.**

---

Data compiled and summarized by P. Ananthakrishnan, 5 June 2012