**Academic Programs – Ocean Engineering Program**

**Ocean and Mechanical Engineering**

**Change the following faculty info from (removing the faculty in red) and adding the faculty in green**

**Faculty:**
Hashemi, J., Chair; Abtahi, H.; An, E.; Ananthakrishnan, P.; Beaujean, P.P.J.; Cai, G. Q.; Carlsson, L. A.; Case, R. O., Emeritus; Curet, O.; Davidson, J. B., Emeritus; Dhanak, M.; Du, S. E.; Elishakoff, I.; Engeberg, E. D.; Frisk, G. V.; Gaonkar, G. H.; Ghenai, C.; Glegg, S. A. L.; Granata, R.; Hartley, C. S., Emeritus; Hartt, W. H., Emeritus; Jurewicz, J. T., Emeritus; Kang, Y.; Kim, M.; LeBlanc, L. L., Emeritus; Lin, Y. K., Emeritus; Mahfuz, H.; Masory, O.; McAllister, R. F., Emeritus; Moslemian, D.; Presuel-Moreno, F.; Salivar, G. C.; Schock, S.; Stevens, K. K., Emeritus; Su, T. C.; Tennant, J. S., Emeritus; Tsai, C. T.; vonEllenrieder, K. D.

**To**

**Faculty:**
Hashemi, J., Chair; Abtahi, H.; An, E.; Beaujean, P.P.J.; Cai, G. Q.; Carlsson, L. A.; Case, R. O., Emeritus; Curet, O.; Davidson, J. B., Emeritus; Dhanak, M.; Du, S. E.; Elishakoff, I.; Engeberg, E. D.; Gaonkar, G. H.; Glegg, S. A. L.; Granata, R.; Hartley, C. S., Emeritus; Hartt, W. H., Emeritus; Jurewicz, J. T., Emeritus; Kang, Y.; Kim, M.; LeBlanc, L. L., Emeritus; Lin, Y. K., Emeritus; Mahfuz, H.; Masory, O.; Moslemian, D.; Presuel-Moreno, F.; Salivar, G. C.; Schock, S.; Seiffert, B.; Stevens, K. K., Emeritus; Su, T. C.; Tennant, J. S., Emeritus; Tsai, C. T.

**Educational Outcomes for Student Performance**

**To be changed from**

1. An ability to apply knowledge of mathematics, science and engineering;
2. An ability to design and conduct experiments, as well as analyze and interpret data;
3. An ability to design a system, component or process to meet desired needs within realistic
constraints, such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability;
4. An ability to function on multidisciplinary teams;
5. An ability to identify, formulate and solve engineering problems;
6. An understanding of professional and ethical responsibility;
7. An ability to communicate effectively;
8. The broad education necessary to understand the impact of engineering solutions in a global, economic and societal context;
9. A recognition of the need for and an ability to engage in lifelong learning;
10. A knowledge of contemporary issues;
11. An ability to use the techniques, skills and modern engineering tools necessary for engineering practice.

**To**

The program will meet the above objectives by establishing the following educational outcomes for
student performance. At the time of graduation, the students will attain the following:

(1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics

(2) an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors

(3) an ability to communicate effectively with a range of audiences

(4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

(5) an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives

(6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions

(7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

**Change the following text from**

The 4000-level Ocean Engineering courses are taught at the SeaTech campus in Dania Beach. Students may not deviate from either the courses defined or the sequence of courses defined for the Ocean Engineering curriculum. In exceptional cases, deviations may be approved in advance by petition to the Ocean Engineering petitions committee. Courses taken in violation of this policy cannot be counted toward the Bachelor of Science in Ocean Engineering degree.

**To**

The courses during the last year of study are taught at the SeaTech campus in Dania Beach. Students may not deviate from either the courses defined or the sequence of courses defined for the Ocean Engineering curriculum. In exceptional cases, deviations may be approved in advance by petition to the Ocean Engineering petitions committee. Courses taken in violation of this policy cannot be counted toward the Bachelor of Science in Ocean Engineering degree.

**Course Descriptions – Ocean Engineering Program**

**Change the following course**

**Introduction to Electronics and Programming (EOC 4612C) 3 credits**
*Prerequisites: COP 2220, EEL 3111, EOC 3130L all with minimum grade of "C"*
Introduction to basic electronics and programming by means of lectures, laboratory assignments and a term project. Laboratory assignments include simple switching and filtering circuits using transistors and op-amp sensor and actuator interfaces, data communication and Arduino programming. The term project involves designing a marine vehicle that incorporates many components covered in class.

To

**Introduction to Electronics and Programming (EOC 4612C) 3 credits**
*Prerequisites: COP 2220, EEL 3111, all with minimum grade of "C"*

*Co-requisite: EOC 3130L all with minimum grade of "C"*
Introduction to basic electronics and programming by means of lectures, laboratory assignments and a term project. Laboratory assignments include simple switching and filtering circuits using transistors and op-amp sensor and actuator interfaces, data communication and Arduino programming. The term project involves designing a marine vehicle that incorporates many components covered in class.