



COLLEGE OF ENGINEERING & COMPUTER SCIENCE  
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**MEMORANDUM**

**From:** William Rhodes, Chair, College of Engineering and Computer Science Graduate Programs Committee

**To:** FAU Graduate Programs Committee

**Subject:** Proposal for a new Distance Learning Certificate program in Offshore Engineering for the Energy Sector

Attached, please find a proposal from the Department of Ocean and Mechanical Engineering to offer an online certificate program, to be delivered through DEDECS, in Offshore Engineering for the Energy Sector.

Administration of the proposed program will require only a minimal effort, since the courses in the program are already offered via DEDECS. The proposed program is expected to increase student enrollment in the graduate program—and therefore FTE and productivity—substantially.

The proposal has been approved by the engineering college graduate committee,

  
College Graduate Committee Chair

  
College Dean

  
GPC Chair

  
Graduate College Dean

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UFS President

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Provost

**Department of Ocean and Mechanical Engineering, Florida Atlantic University**

**Online Certificate Program in Offshore Engineering for the Energy Sector to be offered through DEDECS (formerly FEEDS)**

**Proposal:** A Distance Learning Certificate Program in Offshore Engineering for the Energy Sector to be offered through DEDECS, is proposed.

**Introduction and Rationale:** In the US, at present, there are fewer than 10 programs that offer graduate degrees in Ocean Engineering. Recent trends and future needs point to increased demand for Ocean Engineers, in particular by the Oil and Gas industry, offshore industry and clean energy sectors. It is difficult for the present on-campus OE graduate programs (recruitment into which has to consider financial assistantships and tuition waivers also) to meet the demand.

For those living in regions that do not have University programs in Ocean Engineering, it may not be always possible, for economic or family reasons, to relocate in order to pursue a graduate degree in Ocean Engineering. The same would be the case for working professionals to pursue graduate degree if it requires taking classes on campus. One particular need is seen to be workers in the Energy Sector who want to expand their expertise into the offshore oil and gas industry. The proposed online certificate program is aimed to cater to above groups of engineers. Florida Atlantic University pioneered the discipline of Ocean Engineering and the world-wide recognition of the program would attract students from other states and overseas also. For the College and the Department, the program could increase FTE and productivity substantially. Specifically, it is expected that about 10 students would enroll into the program in the first year; the Department's goal is to reach an enrollment number of about 20 for the online Certificate program by the year 2015.

At present, Florida Atlantic University offers MS, MS/BS and PhD, besides BS, degree programs in Ocean Engineering. All of the courses required for the new certificate program are already offered online or delivered to industry sites and centers through DEDECS (<http://www.dedecs.fau.edu/>), which formerly was referred to as FEEDS. The certificate program will include a no new courses. It should be noted that the present MS (non thesis) program requires a minimum of only 15 credits courses offered by Ocean Engineering and allows remaining 18 credits of coursework to be selected in consultation with the advisor. The students enrolling for the on-line program will be advised by the members of the Department's graduate committee and the graduate program coordinator and will be required to take five of the courses currently offered as part of the MS program in Ocean Engineering.

**Admission and Graduation Requirements:** The certificate program will be open to students who have a BS degree in a related field of engineering, a GPA of at least 3.0 or equivalent (to ensure equivalency to graduate standing) and must satisfy the pre requisites required for each course in the program. Six courses in the program must be completed with a GPA of 3.0 or better. All course materials will be in English and all international students must demonstrate proficiency in English to enter the program.

**Curriculum:** The courses, five of which must be completed for the certificate program in Offshore Engineering for the Energy Sector, are given in the Table 1 (on the next page). The courses in the Spring semester have prerequisites in the Fall semester.

<b>Category</b>	<b>Courses (all are 3 credit hour courses)</b>
<b>Fall Courses</b>	EOC6317 Eng. Principles of Acoustics EOC6216 Corrosion I EOC6185 Advanced Hydrodynamics 1 EGM6533 Advanced Strength Of Materials
<b>Spring Courses</b>	EOC6515 Hydrodynamic Aspects of Ship Design (Prerequisite EOC6185) EOC 5172 Mathematical Methods in Ocean Engineering EOC6431 Offshore Structures (Prerequisite EGN3331 and EOC3410 or equivalent)
<b>Summer Courses</b>	OCP6050 Physical Aspects of Oceanography