**Academic Programs – Ocean Engineering Program**

The table of courses in the Ocean Engineering Core should be changed to the following. The changes consist of:

1. **Course Name Changes:**

EOC 3123, EOC 4124, EOC 3306, EOC 4307C, EOC 3410C, EOC 4412, EOC 4201C.

1. Creation of a New Common Course on Vibration Synthesis & Analysis (EGN 4323).
2. Termination of Existing Courses: EOC 3114 (Vibrations).
3. Pre-req changes related to Engineering Math II (MAP 4306), which can be substituted by Computer Applications in ME II (EML 4534).

|  |
| --- |
| Ocean Engineering Core |
| Introduction to Logic Design | CDA 3201C | 4 |
| Circuits 1 | EEL 3111 | 3 |
| Electro-Mechanical Devices | EGM 4045 | 3 |
| Fundamentals of Engineering | EGN 1002 | 3 |
| Statics | EGN 3311 | 3 |
| Dynamics | EGN 3321 | 3 |
| Strength of Materials | EGN 3331 | 3 |
| Engineering Thermodynamics | EGN 3343 | 3 |
| Engineering Materials 1 | EGN 3365 | 3 |
| Fabrication of OE Systems | EOC 2801 | 1 |
| Vibration Synthesis & Analysis | EGN 4323 | 3 |
| Ocean Engineering Fluid Mechanics | EOC 3123 | 4 |
| Ocean Engineering Lab | EOC 3130L | 3 |
| Materials 1 – Marine Topics | EOC 3213 | 1 |
| Acoustics for Ocean Engineers | EOC 3306 | 3 |
| Structural Analysis | EOC 3410C | 3 |
| Ocean Engineering Systems Control and Design | EOC 4804 | 3 |
| Ocean Engineering Systems Control and Design Project | EOC 4804L | 4 |
| Ocean Thermal Systems | EOC 4193 | 3 |
| Ocean Wave Mechanics | EOC 4422 | 3 |
| Dynamic Systems | EGN4432 | 3 |
| Ocean and Environmental Data Analysis | EOC 4631C | 3 |
| Choose two of the following four courses: |
| Ocean Structures | EOC 4412 | 4 |
| Ship Hydrodynamics | EOC 4124 | 4 |
| Underwater Acoustics | EOC 4307C | 4 |
| Marine Materials & Corrosion | EOC 4201C | 4 |

|  |
| --- |
| Non-Engineering Core (grade of "C" or higher required) |
| Engineering Math 1  | MAP 3305  | 3 |
| Engineering Math 2 or Computer Applications in ME II | MAP 4306 (or EML 4534) | 3 |
| C for Engineers | EEL 2161 | 3 |
| Engineering Graphics | EGS 1111C | 3 |
| Oceanography | OCE 3008 | 3 |

|  |
| --- |
| Non-Required Electives |
| Professional Development | EOC 2902 | 1 |
| Ocean Engineering Diving | EOC 2131C | 1 |

**The sample four-year program of study for BSOE should be changed to the following (the changes are highlighted in red).**

|  |
| --- |
| First Year, Fall (14 credits) |
| College Writing 1 | ENC 1101\* | 3 |
| General Chemistry I | CHM 2045 | 3 |
| General Chemistry 1 Lab | CHM2045L | 1 |
| Calculus with Analytic Geometry 1 | MAC 2311 | 4 |
| Fundamentals of Engineering | EGN 1002 | 3 |

|  |
| --- |
| First Year, Spring (14 credits) |
| College Writing 2 | ENC 1102\* | 3 |
| Oceanography | OCE 3008 | 3 |
| Physics for Engineers 1 | PHY 2048 | 3 |
| General Physics 1 Lab | PHY 2048L | 1 |
| Calculus with Analytic Geometry 2 | MAC 2312 | 4 |

|  |
| --- |
| First Year, Summer (10 credits) |
| Calculus with Analytic Geometry 3 | MAC 2313 | 4 |
| Engineering Graphics\*\* | EGS 1111C | 3 |
| [Foundations of Society and Human Behavior course](http://www.fau.edu/academic/registrar/FAUcatalog/degreerequirements.php#fdnsoc) | 3 |

|  |
| --- |
| Second Year, Fall (14 credits) |
| Engineering Math 1 | MAP 3305 | 3 |
| Physics for Engineers 2 | PHY 2044 | 3 |
| General Physics 2 Lab | PHY 2049L | 1 |
| Statics | EGN 3311 | 3 |
| C for Engineers | EEL 2161 | 3 |

|  |
| --- |
| Second Year, Spring (13 credits) |
| Dynamics | EGN 3321 | 3 |
| Engineering Thermodynamics | EGN 3343 | 3 |
| Fabrication of OE Systems | EOC 2801 | 1 |
| Ocean Engineering Lab | EOC 3130L | 3 |
| Engineering Math 2 (or Computer Applications in ME II) | MAP 4306 (or EML 4534) | 3 |

|  |
| --- |
| Second Year, Summer (9 credits) |
| Circuits 1 | EEL 3111 | 3 |
| [Foundations of Global Citizenship course\*](http://www.fau.edu/academic/registrar/FAUcatalog/degreerequirements.php#fdnglobal) | 3 |
| [Foundations of Creative Expressions course](http://www.fau.edu/academic/registrar/FAUcatalog/degreerequirements.php#fdncreate) | 3 |

|  |
| --- |
| Third Year, Fall (15 credits) |
| Dynamic Systems | EGN 4432 | 3 |
| Strength of Materials | EGN 3331 | 3 |
| Engineering Materials 1 | EGN 3365 | 3 |
| Introduction to Logic Design | CDA 3201 | 4 |
| [Foundations of Society and Human Behavior course](http://www.fau.edu/academic/registrar/FAUcatalog/degreerequirements.php#fdnsoc) | 3 |

|  |
| --- |
| Third Year, Spring (13 credits) |
| Acoustics for Ocean Engineers | EOC 3306 | 3 |
| Ocean Engineering Fluid Mechanics | EOC 3123 | 4 |
| Ocean Thermal Systems | EOC 4193 | 3 |
| Structural Analysis | EOC 3410C | 3 |



|  |
| --- |
| Third Year, Summer (9 credits) |
| Electro-Mechanical Devices | EGM 4045 | 3 |
| [Foundations of Global Citizenship course](http://www.fau.edu/academic/registrar/FAUcatalog/degreerequirements.php#fdnglobal) | 3 |
| [Foundations of Creative Expressions course\*](http://www.fau.edu/academic/registrar/FAUcatalog/degreerequirements.php#fdncreate) | 3 |

|  |
| --- |
| Fourth Year, Fall at SeaTech Campus (13 credits) |
| Ocean Systems Control and Design | EOC 4804 | 3 |
| Vibration Synthesis & Analysis | EGN 4323 | 3 |
| Ocean and Environmental Data Analysis | EOC 4631C | 3 |
| Materials 1 - Marine Topics | EOC 3213 | 1 |
| Ocean Wave Mechanics | EOC 4422 | 3 |

|  |
| --- |
| Fourth Year, Spring at SeaTech Campus (12 credits) |
| Ocean Engineering Systems Control and Design Project | EOC 4804L | 4 |
| Ship Hydrodynamics\*\*\* | EOC 4124 | 4 |
| Marine Materials & Corrosion\*\*\* | EOC 4201C | 4 |
| Underwater Acoustics\*\*\* | EOC 4307C | 4 |
| Ocean Structures\*\*\* | EOC 4412 | 4 |
| Total  | 136 |

\* WAC (Gordon Rule) course
\*\* Engineering Graphics should typically be taken at FAU.
\*\*\* Choose two courses from these four courses.

