





COLLEGE OF ENGINEERING & COMPUTER SCIENCE  
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## MEMORANDUM

**TO:** UUPC  
**FROM:** P. Edgar An, Department of Ocean and Mechanical Engineering  
**SUBJECT:** Requested Ocean Engineering Curricular Changes  
**DATE:** January 4, 2024

### **1. Programming Course Change**

The OE Program is proposing to drop EGN 2213 (Comp Apps I, 3 credit hours) from its existing curriculum, and replace it with EEL 2161 (C For Engineers, 3 credit hours).

## University Catalog Changes

<b>Ocean Engineering Core</b>		
<b>C for Engineers</b>	<b>EEL 2161</b>	<b>3</b>
<b>Computer Applications in ME I</b>	<b>EGN 2243</b>	<b>3</b>
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
Vibration Synthesis and Analysis	EGN 4323	3
Dynamic Systems	EGN 4432	3
Fabrication of OE Systems	EOC 2801	1
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 Thermal Systems	EOC 4193	3
Ocean Wave Mechanics	EOC 4422	3
Ocean and Environmental Data Analysis	EOC 4631C	3
RI: Ocean Engineering Systems Control and Design	EOC 4804	3
RI: Ocean Engineering Systems Control and Design Laboratory	EOC 4804L	4
<b>Choose one of the following three junior elective courses:</b>		
Innovative Sensing and Actuation Technology	EGN 4670C	3
Finite Element Analysis for Engineering Design	EGM 4350	3
Internship	IDS 3949	<b>3</b>
<b>Choose two of the following four courses:</b>		
Ocean Structures	EOC 4412	3
Ship Hydrodynamics	EOC 4124	3
Underwater Acoustics	EOC 4307C	3
Marine Materials and Corrosion	EOC 4201C	3

<b>First Year, Fall (14 credits)</b>		
College Writing 1*	ENC 1101	3
General Chemistry 1	CHM 2045	3
General Chemistry 1 Lab	CHM 2045L	1
Calculus with Analytic Geometry 1	MAC 2311	4
Fundamentals of Engineering	EGN 1002	3

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

<b>First Year, Summer (7 credits)</b>		
Calculus with Analytic Geometry 3	MAC 2313	4
<a href="#">Foundations of Humanities course</a>		3

<b>Second Year, Fall (13 credits)</b>		
Engineering Math 1	MAP 3305	3
Physics for Engineers 2	PHY 2044	3
General Physics 2 Lab	PHY 2049L	1
Statics	EGN 3311	3
<b>C for Engineers</b>	<b>EEL 2161</b>	<b>3</b>
<b>Computer Applications in ME I</b>	<b>EGN 2213</b>	<b>3</b>

<b>Second Year, Spring ( 15 credits)</b>		
Engineering Graphics***	EGN 1111C	3
Dynamics	EGN 3321	3
Strength of Materials	EGN 3331	3
Engineering Thermodynamics	EGN 3343	3
Ocean Engineering Lab	EOC 3130L	3

<b>Second Year, Summer (6 credits)</b>		
Electro-Mechanical Devices	EGM 4045	3
<a href="#">Foundations of Humanities course*</a>		3

<b>Third Year, Fall (13 credits)</b>		
Engineering Materials 1	EGN 3365	3
Vibrations Synthesis and Analysis	EGN 4323	3
Ocean Engineering Fluid Mechanics	EOC 3123	4
<a href="#">Foundations of Global Citizenship course*</a>		3

<b>Third Year, Spring (13 credits)</b>		
Dynamic Systems	EGN 4322	3
Fabrication of Ocean Engineering Systems	EOC 2801	1
Acoustics for Ocean Engineers	EOC 3306	3
Structural Analysis	EOC 3410C	3
Ship Hydrodynamics	EOC 4124	3 <b>or</b>
Marine Materials and Corrosion	EOC 4201C	3

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<b>Third Year, Summer (6 credits)</b>		
<a href="#">Foundations of Global Citizenship course</a>		3
<a href="#">Foundations of Society and Human Behavior course</a>		3

<b>Fourth Year, Fall (13 credits)</b>		
Materials 1 - Marine Topics	EOC 3213	1
Ocean Thermal Systems	EOC 4193	3
Ocean Wave Mechanics	EOC 4422	3
Ocean and Environmental Data Analysis	EOC 4631C	3
RI: Ocean Engineering Systems Control and Design	EOC 4804	3

<b>Fourth Year, Spring (13 credits)</b>		
Finite Element Analysis for Engineering Design	EGM 4350	3 <b>or</b>
Innovative Sensing and Actuation Technologies	EGN 4670C	3 <b>or</b>
Internship	IDS3949	3
Underwater Acoustics****	EOC 4307C	3 <b>or</b>
Ocean Structures****	EOC 4412	3
RI: Ocean Engineering Systems Control and Design Laboratory	EOC 4804L	4
<a href="#">Foundations of Society and Human Behavior course</a>		3
<b>Total</b>		<b>127</b>

\* WAC (Gordon Rule) course.

\*\* Engineering Graphics should typically be taken at FAU.

\*\*\* Choose one course from these two courses.

\*\*\*\* Choose two courses from these four senior elective courses.