Pre-Professional Engineering Program (2023-2024)

**Foundations of Written Communication**
(6 credit hours required – Writing Across the Curriculum - WAC)
Grade of “C” or higher is required in each course.

- ENC 1101......College Writing I *(Required)*
- ENC 1102......College Writing II *

The following courses below may be substituted for ENC 1102:
- ENC 1939 + Special Topic: College Writing
- HIS 2050 + Writing History

*Note: Students must take four Writing-Across-the-Curriculum (WAC) courses, two of which must be taken from Foundations of Written Communication.*

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**Foundations of Mathematics & Quantitative Reasoning**
(6 credit hours required – Grade of “C” or higher is required)
Student must take 2 of the following courses, 1 must be from group A.
The second course may be from group A or group B.

**Group A**
- MAC 1105......College Algebra *(Required)*
- MAC 2311......Calculus with Analytic Geometry 1 (4 credits) *(Required)*

**Group B**
- MAC 2210......Intro Calculus w/Applications (4 credits)
- MAC 2312......Calculus with Analytic Geometry 2 (4 credits) *(Required)*

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**Foundations of Science & the Natural World**
(6 credit hours required - One of the courses must have a lab)
Student must take 2 of the following courses, 1 must be from group A.
The second course may be from group A or group B.

**Group A**
- BSC 1010 & L **** Biological Principles (4 cr. incl. Lab)
- CHM 2045 & L **** General Chemistry 1 (4 cr. incl. Lab) *
- PHY 2048 & L **** General Physics 1 (4 or 5 credits incl. Lab) *

**Group B**
- GLY 2010C & D **** Physical Geol. (4 cr. incl. Lab)
- PHY 2049 & L **** General Physics 2 (4 or 5 credits incl. Lab)

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**Foundations of Society & Human Behavior**
(6 credit hours required)
Student must take 2 of the following courses, 1 must be from group A.
The second course may be from group A or group B.

**Group A**
- AMH 2020 & D ...... United States History Since 1877 ◊
- ANT 2000 & D……. Introduction to Anthropology *(WAC)*
- ECO 2013............. Macroeconomic Principles §
- ECO 2023............. Microeconomic Principles §
- ECP 2002............. Contemporary Economic Issues
- EEX 2091............. Disability and Society
- EVR 1110............. Climate Change: The Human Dimensions
- EVR 2017............. Environment and Society
- LIN 2001............. Introduction to Language *(online course)*
- PAD 2081............. Risk Resilience and Rising Seas ±
- PAD 2258............. Changing Environment of Soc., Bus., & Gov’t
- SYG 1000............. Sociological Perspectives

**Group B**
- AMH 2010 & D ..... United States History to 1877
- CCJ 2002 ................ Law, Crime & the Criminal Justice System ±
- DIG 2202............. Digital Culture
- ECO 2133............. Macroeconomic Principles §
- ECO 2134............. Microeconomic Principles §
- EEC 2002............. Contemporary Economic Issues
- EEX 2091............. Disability and Society
- EME 2620 ............ Digital Literacy in a Globally Connected World H
- EVR 1110............. Climate Change: The Human Dimensions
- EVR 2017............. Environment and Society
- LIN 2001 ............. Introduction to Language *(online course)*
- PAD 2081 ............. Risk Resilience and Rising Seas ±
- PAD 2258 ............. Changing Environment of Soc., Bus., & Gov’t
- SYG 1000 ............. Sociological Perspectives
- URP 2051 ............. Designing the City

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**Civic Literacy Requirement** ◊

https://www.fau.edu/ugstudies/civic-literacy-requirement/

Beginning in Summer 2021, Florida Legislature amended the statute and now requires students to complete both a civic literacy course (AMH 2020 or POS 2041) and an assessment exam.
FOUNDATIONS IN GLOBAL CITIZENSHIP
(6 credit hours required)
Student must choose two (2) courses from among the following:

- ANT 2410 Culture and Society
- EDF 2854 Educated Citizen in Global Context
- GEA 2000 World Geography
- INR 2002 Introduction to World Politics
- JST 2452 Global Jewish Communities
- LAS 2000 Intro to Caribbean & Latin American Studies
- LIN 2607 Global Perspectives on Language
- MAR 2142 Culture, Consumers, and the Global Marketplace
- MUH 2121 Music in Global Society
- POT 2000 Global Political Theory
- SYP 2450 Global Society
- SOW 1005 Global Perspectives of Social Services
- SOW 1130 Race and Cultural Inclusion in Social Work
- WOH 2012 History of Civilization 1 (WAC) ++
- WOH 2022 History of Civilization 2
- WST 2351 Gender and Climate Change

§ Writing Across the Curriculum (WAC)/Gordon Rule
Students must take four (4) WAC courses. Must earn a “C” or better.
Required: ENC1101 & ENC1102 or allowable substitute.
We recommend two additional WAC courses come from these courses:

Requirement Information
NOTE: All Engineering students should take Physics I (PHY 2048 & PHY 2048L) with Calculus II (MAC 2312) in the same semester.

NOTE: Students must receive a minimum grade of “C” in the courses below in no more than two attempts to complete Pre-Professional requirements:

- Electrical, Ocean, Mechanical, Civil, Environmental, & Computer Engineering: MAC 2311 & PHY 2048
- Computer Science & Geomatics: MAC 2311

WAC - (WAC) Writing across the curriculum course.

Legend

- ENC 1101 is a prerequisite.
- Two Foundations of Written Communications classes are required before taking this course.
- Sophomore standing (30 credits earned) is a requirement to take this course.
- MAC 2311 is a prerequisite for this course.
- MAC 2233 is a prerequisite for this course. If a lab is needed, then take General Physics 1 Lab (PHY 2048 Lab).
- Co-requisite of College Algebra (MAC 1105) or a prerequisite of Introductory Chemistry (CHM 1025).
- Starting Spring 2022
- Starting Spring 2023
- Starting Fall 2023
- See information box below regarding Civic Literacy Requirement

Advising Information
First-Year & Transfer Students w/ less than 30 credits contact:
University Advising Services (UAS)
Phone: (561) 297 – 3064
Email: Advisingservices@fau.edu
Website: www.fau.edu/uas

Transfer students with more than 30 credits contact:
Division of Engineering Student Services & Advising (DESSA)
Phone: (561) 297 – 2780
Website: www.fau.edu/engineering/dessa/organization/
### MAJOR REQUIREMENTS

(All required courses must earn a “C” or better)

Engineering students must stick to the core curriculum.

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**EGN 1002 & D** Fundamentals of Engineering [Must be taken freshman year] (NOT required for Computer Science majors)

**COP 2220** Programming 1 [Must be taken freshman year] (ONLY required for Computer Science/Engineering majors)

### **** SCIENCE REQUIREMENTS BY MAJOR

#### Civil Engineering

**REQUIRED**
- ___ CHM 2045 & L....... General Chemistry 1 (4 cr. w/Lab) ‡
- ___ PHY 2048 & L....... General Physics 1 (4 or 5 cr. w/Lab) *

And must also choose **ONE** of the following from Science 1:
- ___ BSC 1010 & L........ Biological Principles (4 credits including Lab)
- ___ GLY 2010C & D...... Physical Geology (4 cr. including Lab) [RECOMMENDED]

And must also choose **ONE** of the following from Science 2:
- ___ BSC 1010 & L........ Biological Principles (4 credits including Lab) **
- ___ GLY 2010C & D...... Physical Geology (4 cr. including Lab) **
- ___ CHM 2046 & L....... General Chemistry 2 (4 cr. w/Lab) ‡

**May not be used to satisfy Science 2 if used to satisfy Science 1**

#### Computer Engineering

**REQUIRED**
- ___ PHY 2048 & L....... General Physics 1 (4 or 5 cr. w/Lab) *
- ___ PHY 2049 & L....... General Physics 2 (4 or 5 cr. w/Lab) or PHY 2044 & L...PHYSICS FOR ENGINEERS 2 (4 cr. w/ Lab)

#### Computer Science

Choose **TWO** of the following:
- ___ CHM 2045 & L....... General Chemistry 1 (4 cr. w/Lab) ‡
- ___ BSC 1010 & L........ Biological Principles (4 credits including Lab)
- ___ GLY 2010C & D...... Physical Geology (4 cr. including Lab) [RECOMMENDED]
- ___ PHY 2048 & L....... General Physics 1 (4 or 5 cr. w/ Lab)
- ___ PHY 2049 & L....... General Physics 2 (4 or 5 cr. w/ Lab) or PHY 2044 & L...PHYSICS FOR ENGINEERS 2 (4 cr. w/ Lab)

#### Electrical Engineering

**REQUIRED**
- ___ PHY 2048 & L....... General Physics 1 (4 or 5 cr. w/ Lab) *
- ___ PHY 2049 & L....... General Physics 2 (4 or 5 cr. w/ Lab) or PHY 2044 & L...PHYSICS FOR ENGINEERS 2 (4 cr. w/ Lab)
### Environmental Engineering

**REQUIRED**
- CHM 2045 & L....... General Chemistry 1 (4 cr. w/Lab) ‡
- CHM 2046 & L....... General Chemistry 2 (4 cr. w/Lab) ‡
- PHY 2048 & L....... General Physics 1 (4 or 5 cr. w/ Lab) *

**And must also choose ONE of the following:**
- BSC 1010 & L...........Biological Principles (4 credits including Lab)
- BSC 1011 & L...........Biodiversity (4 credits including Lab)

**And must also choose ONE of the following:**
- GEO 2200C.............. Intro to Physical Geography
- GLY 2010C & D...........Physical Geology (4 cr. including Lab)

### Geomatics Engineering

**REQUIRED**
- PHY 2048 & L.........General Physics 1 (4 or 5 cr. w/ Lab) *
- GEO 2200C...............Intro to Physical Geography

**And must also choose ONE of the following:**
- CHM 2045 & L...........General Chemistry 1 (4 cr. w/Lab) ‡
- GLY 2010C & D...........Physical Geology (4 cr. including Lab)

**And must also choose TWO of the following:**
- ANT 2511 & L...........Intro to Biological Anthropology (4 credits w/Lab)
- BSC 1010 & L...........Biological Principles (4 credits w/Lab)
- BSC 1011 & L...........Biodiversity (4 credits w/Lab)
- BSC 2085 & L...........Anatomy & Physiology 1 (4 credits including Lab)
- CHM 2045 & L...........General Chemistry 1 (4 cr. w/Lab) ‡ **
- CHM 2032 & L...........Chemistry for Health Sciences (4 cr. w/Lab)
- GLY 2010C & D...........Physical Geology (4 cr. including Lab) **
- PHY 2053 & L..........College Physics 1 (4 credits w/ Lab)

### Mechanical Engineering

**REQUIRED**
- CHM 2045 & L....... General Chemistry 1 (4 cr. w/Lab) ‡
- PHY 2048 & L....... General Physics 1 (4 or 5 cr. w/ Lab) *
- PHY 2049 & L....... General Physics 2 (4 or 5 cr. w/ Lab) or PHY 2044 & L...PHYSICS FOR ENGINEERS 2 (4 cr. w/ Lab)

### Ocean Engineering

**REQUIRED**
- CHM 2045 & L....... General Chemistry 1 (4 cr. w/Lab) ‡
- PHY 2048 & L....... General Physics 1 (4 or 5 cr. w/ Lab) *
- PHY 2049 & L....... General Physics 2 (4 or 5 cr. w/ Lab) or PHY 2044 & L...PHYSICS FOR ENGINEERS 2 (4 cr. w/ Lab)