

**FLORIDA ATLANTIC UNIVERSITY – INTELLECTUAL FOUNDATION PROGRAM 2023 – 2024**

*All courses are three (3) credits unless otherwise indicated. Course selections should be made in consultation with an academic advisor.*

**PRE-PROFESSIONAL ENGINEERING PROGRAM (2023-2024)**

College of Engineering and Computer Science

**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.

**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
- \_\_\_ MAC 2311..... Calculus with Analytic Geometry 1 (4 credits) **(Required)**

**Group B**

- \_\_\_ MAC 2210..... Intro Calculus w/Applications (4 credits) **(Permit Only)**
- \_\_\_ MAC 2312..... Calculus with Analytic Geometry 2 (4 credits) **(Required)**

**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)

**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 §
- \_\_\_ POS 2041 ..... Government of the United States ◊
- \_\_\_ PSY 1012..... Introduction to Psychology
- \_\_\_ 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 2023..... Microeconomic Principles §
- \_\_\_ ECP 2002..... Contemporary Economic Issues
- \_\_\_ EEX 2091..... Disability and Society
- \_\_\_ EME 2620 ..... Digital Literacy in a Globally Connected World ✕
- \_\_\_ 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 2010 ..... Social Problems
- \_\_\_ URP 2051..... Designing the City

**\*\*\*\* SEE SCIENCE REQUIREMENTS BY MAJOR ON PAGE 3 & 4**

**(D) = Discussion, (L) = Lab**

Courses indicating a (D) or (L) are linked with a lecture, a lab, and/or a discussion. If you select one of these courses, you must register for the lecture, lab, and/or discussion. You **must** attend the lecture, lab, and/or discussion.

**◊ 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 Ω
- \_\_\_ 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 Ω
- \_\_\_ 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 & D ..... History of Civilization 1 (WAC) ++
- \_\_\_ WOH 2022..... History of Civilization 2
- \_\_\_ WST 2351 ..... Gender and Climate Change

### FOUNDATIONS OF HUMANITIES

(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

- \_\_\_ ARH 2000 ..... Art Appreciation
- \_\_\_ MUL 2010..... Music Appreciation
- \_\_\_ PHI 2010 & D..... Introduction to Philosophy (WAC) ++
- \_\_\_ THE 2000 ..... Theatre Appreciation

#### Group B

- \_\_\_ ARC 2208..... Culture & Architecture
- \_\_\_ DAN 2100..... Appreciation of Dance
- \_\_\_ FIL 2000 & D..... Film Appreciation
- \_\_\_ HUM 2471..... Racism and Anti-Racism
- \_\_\_ LIT 2010..... Interpretation of Fiction (WAC) ++
- \_\_\_ LIT 2030..... Interpretation of Poetry (WAC) ++
- \_\_\_ LIT 2040..... Interpretation of Drama (WAC) ++
- \_\_\_ LIT 2070..... Interpretation of Creative Nonfiction (WAC) ++
- \_\_\_ LIT 2100..... Introduction to World Literature
- \_\_\_ LIT 2931..... Special Topics in Literature (WAC) ++ Ω
- \_\_\_ SPC 2608 ..... Public Speaking ±

#### § 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: ANT 2000, PHI 2010, WOH 2012, LIT 2010, LIT 2030, LIT 2040, LIT 2070 or LIT 2931. See advisor for additional details.

#### 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

#### Advising Information

**First-Year & Transfer Students w/ less than 30 credits contact:**

University Advising Services (UAS)

Phone: (561) 297 – 3064

Email: [Advisingservices@fau.edu](mailto:Advisingservices@fau.edu)

Website: [www.fau.edu/uas](http://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/](http://www.fau.edu/engineering/dessa/organization/)

#### 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
- Ω - Starting Spring 2023
- ✕ - Starting Fall 2023
- ◊ - See information box below regarding Civic Literacy Requirement
- WAC** - (WAC) Writing across the curriculum course.

## MAJOR REQUIREMENTS

(All required courses must earn a "C" or better)

Engineering students must stick to the core curriculum.

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