

# ARTICULATED PRE-MAJOR: ENGINEERING (UNIVERSITY OF MIAMI)

## Associate in Arts Degree

This Pre-Major is designed for the student who plans to transfer to the University of Miami (UM) in Miami, Florida as a junior to complete a four-year bachelor's degree in the College of Engineering. It is based upon an articulation agreement in Engineering with UM. Students who plan to transfer are responsible for completing the admission requirements of UM.

All degree-seeking students must satisfy entry testing requirements and satisfactorily complete all Mandatory Courses in reading, student success, mathematics, English and English for Academic Purposes in which the student is placed. Students must complete all prerequisites for the listed course requirements and Valencia's foreign language proficiency requirement. Courses meeting the preceding requirements will be in addition to the 60 credits listed. Also, courses listed in the NOTES below may be taken at Valencia in addition to the 60 credits listed.

The courses do not have to be taken in the order listed; the sequence suggested is based upon prerequisites and level of course difficulty for most students.

Financial aid is available to eligible Valencia transfer students. The combination of state, federal, and university financial aid programs can make the University of Miami affordable to eligible students who wish to transfer to UM. Visit the University of Miami admissions Web site [miami.edu](http://miami.edu) for additional information.

### Helps prepare you for the following careers:

- Calibration Engineer
- Systems Engineer
- Network Supervisor
- Programmer
- Project Engineer

For specific information on these careers, visit Career Development Services on a Valencia Campus.

Specialized courses may not be offered every session or on every campus.  
+ This course must be completed with a grade of C or better.  
\* This course has a prerequisite; check description in Valencia catalog.  
(GR) Denotes a Gordon Rule course.

The courses do not have to be taken in the order listed; the sequence suggested is based upon prerequisites and level of course difficulty for most students.

#### FOUNDATION COURSES

Course	Title	Credits
+* ENC 1101	Freshman Composition I (GR)	3
Humanities	Humanities - Group A for UM	3
+ EGS 1006	Introduction to the Engineering Profession	1
+ EGS 1007	Engineering Concepts and Methods	1
+* MAC 2311	Calculus with Analytic Geometry I (GR)	5
SPC 1608	Fundamentals of Speech	3
POS 2041	U.S. Government	3
<b>Total Credits</b>		<b>19</b>

#### INTERMEDIATE COURSES

Course	Title	Credits
+* ENC 1102	Freshman Composition II (GR)	3
+* MAC 2312	Calculus with Analytic Geometry II (GR)	5
+* Humanities	Humanities - Group B for UM (GR)	3
+* Humanities	HUM Prefix (GR)	3
+* PHY 2048C	General Physics with Calculus I	4
+* EGN 1111C	Engineering Graphics	3
<b>Total Credits</b>		<b>21</b>

#### ADVANCED COURSES

Course	Title	Credits
+* MAC 2313	Calculus with Analytic Geometry III (GR)	4
+* PHY 2049C	General Physics with Calculus II	4
+* MAP 2302	Differential Equations (GR)	3
+* EGS 2310	Engineering Analysis - Statics	3
ECO 2013	Principles of Economics - Macro	3
+* EGS 2004	<sup>1</sup> Electrical Networks or	
+* EGS 2373	<sup>1</sup> Principles of Electrical Engineering	3
<b>Total Credits</b>		<b>20</b>
<b>Total Degree Credits</b>		<b>60</b>

#### Humanities - Group A for UM

ARH 2050	Introduction to Art History I	3
HUM 1020	Introduction to Humanities	3
MUL 1010	Music Appreciation	3
PHI 2010	Philosophy	3

#### Humanities - Group B for UM

+* AML 2011	American Literature: Colonial Period to Civil War	3
+* AML 2021	American Literature: Civil War to Present	3
+* ENL 2012	English Literature: 1300 to 1800	3
+* ENL 2022	English Literature: 1800 to Present	3
+* LIT 2110	World Literature: Beginning through Renaissance	3
+* LIT 2120	World Literature: Enlightenment to Present	3

#### NOTES:

Depending upon the Engineering major at UM, it may be advisable to complete additional courses at Valencia. See Notes that follow or consult the UM advisor.

<sup>1</sup>+\*EGS 2004 Electrical Networks (Biomedical, Computer and Electrical majors) or  
<sup>1</sup>+\*EGS 2373 Principles of Electrical Engineering (All other majors).

Architectural, Biomedical, Civil, Environmental, Industrial and Manufacturing majors should take +\* CHM 1045C General Chemistry with Qualitative Analysis I at Valencia.

Aerospace and Mechanical majors should take +\* EGS 2321 Engineering Analysis - Dynamics at Valencia.

Computer, Electrical, and Industrial majors should take +\*MAS 2103 Introduction to Linear Algebra at Valencia.