

**PRE-ENGINEERING ASSOCIATE IN ARTS DEGREE**  
**A Customized Program of Engineering Studies Between**  
**Lake-Sumter Community College and the University of Florida College of Engineering**

The Pre-Engineering Associate in Arts (AA) degree (outlined below), is a program of study that is designed to prepare students for University of Florida (UF) College of Engineering upper division course work in all disciplinary areas. Upon satisfactory completion of the Pre-Engineering AA Degree Program and UF transfer admission requirements, students will be directly admitted to the College of Engineering and will be eligible to pursue a Bachelor of Science degree in any of the following majors: Aerospace Engineering, Agricultural & Biological Engineering, Chemical Engineering, Civil Engineering, Computer Engineering (software or hardware emphasis), Digital Arts & Sciences, Electrical Engineering, Environmental Engineering Sciences, Industrial & Systems Engineering, Materials Science & Engineering, Mechanical Engineering, Nuclear Engineering, and Nuclear Engineering Sciences. **Digital Arts & Science majors should contact the Department of Computer & Information Science and Engineering at (352) 392-1090 for specific course and major requirements.** Specific Information on upper division requirements for each major can also be found in the university catalog. Note that if all prerequisites are met, courses can be taken in any sequence.

<u>Year-Semester</u>	<u>Course Title or Subject Area</u>	<u>Course Number</u>	<u>Credits</u>
1-1	Calculus w/ Analytic Geometry I	MAC 2311	5
	College Chemistry I with Lab	CHM 2045 & CHM 2045L	5
	College Composition I	ENC 1101	3
	SOCIAL/BEHAVIORAL SCIENCES ( <b>see Note 11</b> )	Approved Course	<u>3</u>
			16
1-2	Calculus w/ Analytic Geometry II	MAC 2312	4
	College Chemistry II with Lab ( <b>See Note 8</b> )	CHM 2046 & CHM 2046L	5
	<b>- OR -</b>		
	ELECTIVE ( <b>see Notes 9 through 12</b> )		
	Composition: Literature	ENC 1102	3
HUMANITIES	Approved Course	<u>3</u>	
			15
2-3	Calculus w/ Analytic Geometry III	MAC 2313	4
	Physics w/ Calculus I w/ Lab	PHY 2048C	5
	HUMANITIES	Approved Course	3
	SOCIAL/BEHAVIORAL SCIENCES ( <b>see Note 11</b> )	Approved Course	<u>3</u>
			15
2-4	Physics w/ Calculus II w/ Lab	PHY 2049C	5
	Composition: Argumentation	ENC 2135	3
	HUMANITIES OR SOCIAL/BEHAVIORAL SCIENCES	Approved Course	3
	ELECTIVE ( <b>See Notes 9 through 12</b> )		<u>3</u>
			14
<b>Total Hours for Pre-Engineering AA Degree:</b>			<u>60</u>

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## Summary of Credits for the Lake-Sumter Community College Pre-Engineering Associate in Arts Degree:

<u>Required Subject Area</u>	<u>Pre-Engineering Degree Program</u>	<u>LSCC AA Degree Requirements</u>
Mathematics	13	6
Natural & Physical Science	15-20	6
Composition and Oral Communication	9	9
Humanities	6-9	6-9
Social/Behavioral Sciences	6-9	6-9
Electives	3-8	24
<b>Total Credit Hours Required for AA Degree:</b>	<b>60</b>	<b>60</b>

### Important Notes:

1. Students should refer to the course listing under "General Education Requirements for the AA Degree" in the community college catalog for all approved courses. Credits that are not included in the Pre-Engineering AA Degree Program may not be transferable to UF's Bachelor of Science degree programs.
2. Placement in English, natural science, and mathematics courses varies. Students may be required to complete certain preparatory courses prior to taking the designated engineering foundation courses in mathematics, chemistry, and physics.
3. Students must comply with all graduation requirements for the Associate in Arts (AA) degree. Students without two years of high school foreign language must complete two terms of college level language courses prior to enrolling at UF. The general education requirements of the Accreditation Board for Engineering and Technology (ABET) will be met with satisfactory completion of the AA degree.
4. **Students admitted prior to Fall 2004 must have at least a 2.0 cumulative (overall) GPA at their community college. In Fall 2004, the cumulative community college GPA requirement will increase to 2.7, and in Fall 2005 the cumulative GPA requirement will increase to 3.0.**
5. **An overall minimum 2.5 technical grade point average (GPA) is also required.** The technical GPA is based on a 4.0 scale. Computation of the technical GPA is based on the best of the maximum two attempts allowed for each course. The following courses and credit hours (in parentheses) are used to calculate the technical GPA: MAC 2311 (4), MAC 2312 (4), MAC 2313 (4), MAP 2302 (3), CHM 2045 (3), CHM 2046 or substitute (3), PHY 2048C (3) and PHY 2049C (3).
6. **All calculus, physics, and chemistry courses must be completed with a grade of C or better with no more than two attempts (including withdrawals) at each course.** Exception: The Department of Electrical & Computer (Hardware) Engineering requires a C+ or better in each of the calculus and physics courses (B grades are required if + grades are not issued at the community college).
7. Differential Equations (MAP 2302) is also a required tracking course, but the course is not offered at LSCC. For that reason, LSCC students are not required to complete MAP 2302 prior to admission to UF, but they must complete this course in the first semester at the university.
8. The following engineering majors require CHM 2046 & CHM 2046L: Agricultural & Biological, Chemical, Environmental, and Materials Science. Civil majors are also required to take CHM 2046, but are not required to take CHM 2046L. Aerospace and Mechanical majors are required to take either CHM 2046 (without lab) or BSC 1010 (without lab). Computer (software and hardware) and Electrical majors can take any biological science course (no lab required) in place of CHM 2046. Industrial & Systems and Nuclear majors are not required to take CHM 2046 or CHM 2046L.
9. Although not required for the Pre-Engineering AA Degree Program, some engineering majors do require one or more biological science courses: Agricultural & Biological majors are required to take BOT 1010 or BSC 1010. Chemical majors are required to take BSC 1010 and BSC 1011. Nuclear majors are also required to take a biological science course. To ease their course load at the university, students are encouraged to complete these and other recommended courses at the community college.
10. All students are encouraged to complete Technical Report Writing (ENC 2210) as part of the AA degree. This course is required for the BS Engineering degree at UF and will have to be taken at the university if it is not completed at the community college.
11. Industrial & Systems (ISE) majors should take ECO 2013 and ECO 2023 to fulfill the Social/Behavioral Sciences requirement. ISE students are also encouraged to complete ACG 2022 at the community college.
12. Students are expected to enter the engineering program with basic computer programming skills (preferably in C++).

### Contacts:

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