ELECTRICAL ENGINEERING

COLLEGE: ENGINEERING
SCHOOL: NONE
DEGREE: BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING
OPTION/TRACK: NONE

LIMITED ACCESS PROGRAM: NO.

CAMPUS(ES) WHERE OFFERED/CONTACT:
- TAMPA / Coordinator of Advising, Engineering, (813) 974-2884
- LAKELAND (Partial) / Advisor, Engineering, (941) 667-7011
- SARASOTA (Partial) / Advisor, Engineering, (813) 359-4331

Program of Study at a Florida Community/Junior College or SUS School for Students Planning to Transfer to USF (State Mandated Common Prerequisites)

If a student wishes to transfer without an A.A. degree and has fewer than 60 semester hours of acceptable credit, the student must meet the university’s entering freshman requirements including ACT or SAT test scores, GPA, and course requirements.

Students should complete the following prerequisite courses listed below at the lower level prior to entering the University. If these courses are not taken at the community college, they must be completed before the degree is granted. Unless stated otherwise, a grade of "C" is the minimum acceptable grade.

Some courses required for the major may also meet General Education Requirements thereby transferring maximum hours to the university. The following are transferable courses from the Community College that will be accepted in the Math/Science/Engineering areas:

Communications:
- ENC 1101/1102 English I and II (6)

Humanities & Social Sciences:
- Humanities Courses (6)
- Social Science Courses (6)
- Humanities or Social Sciences (3)

Mathematics:
- MAC 2281 or MAC 2281, MAC 2282, MAC 2283
- MAC 2311 or MAC 2311, MAC 2312, MAC 2313
- MAP 2302

Natural Sciences:
- CHM 2045 or CHS 1440 Chemistry for Engineers
- PHY 2048 or PHY 2048L
- PHY 2049 or PHY 2049L

Please be aware of the immunization, foreign language, continuous enrollment policies of the university, and qualitative standards required.

Procedures for Applying to the College of Engineering

Before declaring a particular major within the field of engineering, students must meet two sets of admission requirements: one for the College of Engineering and the other for the student’s chosen degree program (see “College of Engineering Admission Requirements” and “Admission Requirements for Programs in Engineering” below). Students may apply to the College of Engineering upon initial entry to the University by declaring Engineering as their intended major on their admissions application. When a student is accepted to USF, engineering staff will review the necessary credentials and notify the applicant of his or her Engineering status.

USF students may apply through the Advising Office, in the College of Engineering. To be considered for admission to the College, an applicant must be accepted by the University as a degree-seeking student and be academically in good standing.

Applicants whose native language is other than English must submit TOEFL scores to the College of Engineering. The minimum TOEFL score must be 550.

College of Engineering Admission Requirements

1. Freshmen:
   a. Test Scores:
      SAT—combined score of 1050 minimum with a minimum quantitative of 550.
      ACT—combined score of 25 minimum and mathematics of 25 minimum.
   b. High School Mathematics: Should include sufficient algebra and trigonometry to enter Engineering Calculus I.
   c. High School Grade Point Average of 2.5/4.0.

2. Transfer Students:
   a. Engineering
      Florida community college transfer students that have completed the courses shown below with a minimum grade of "C" are accepted directly into the College of Engineering.

Communications:
- ENC 1101/1102 English I and II (6)

Mathematics:
- MAC 2311 Engineering Calculus I (4) or MAC 2281, MAC 2282, MAC 2283
- MAC 2312 Engineering Calculus II (4) or MAC 2281, MAC 2282, MAC 2283
- MAC X283 Engineering Calculus III (4) or MAC 2281, MAC 2282, MAC 2283
- MAP X302 Differential Equations (3)

Natural Sciences:
- CHM X045/X045L General Chemistry I (with lab) (4) or CHS 1440 Chemistry for Engineers

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PHY X048/X048L General Physics and Laboratory I (4)
PHY X049/X049L General Physics and Laboratory II (4)

Humanities & Social Sciences:
  Humanities Courses (6)
  Social Science Courses (6)
  Humanities or Social Sciences (3)

b. Computer Science
Transfer students into the Computer Science program from a Florida community college are not required to have Differential Equations, MAP X302, or any of the Chemistry courses indicated above.

c. Information Systems
Transfer students into the Information Systems program from a Florida community college are not required to have Calculus III, Differential Equations, MAP X302, or any of the Chemistry courses indicated above.

All other transfer students should contact the College’s Admission Office (813/974-2684).

- **Required Prerequisites for Entering Engineering programs**
Once a student has been admitted to the College of Engineering, he/she must then seek admission into one of the specific departments.

The minimum requirements for acceptance by the departments administering the Engineering programs in Chemical, Civil, Electrical, Industrial, and Mechanical Engineering are completion of English, Calculus, Differential Equations, Physics and Chemistry requirements.

The minimum requirements for admission to the Computer Engineering, Computer Science, and Information Systems programs offered by the Computer Science and Engineering Department are completion of English I & II, Physics I & II (and labs) and Calculus I & II with a grade point average of 3.0 or higher in those eight courses. Following departmental admission, it is necessary that a student complete the courses CDA 3100 (Computer Organization), and COP 3514 (Program Design) with a grade point average for all attempts of at least 3.0 prior to taking any other departmental courses.

Prior to being admitted to a department, a student may be permitted to take no more than two departmental engineering courses. Individual departments may have continuation requirements.

A student can have his or her academic records housed in a department and be advised by the department advisor prior to completing requirements for department admission if he or she so chooses. This type of student must still comply with all of the above-listed requirements prior to official acceptance by the department.

- **Bachelor’s Curriculum - Electrical Engineering**

  **Semester 1**
  ENC 1101 Composition I  3
  MAC 2281 Eng. Calculus I  4
  Social Science Elective  3
  Fine Arts Elective  3
  EGN 2082 History of Electrotechnology  3
  Total 16

  **Semester 2**
  ENC 1102 Composition II  3
  MAC 2282 Eng. Calculus II  4
  PHY 2048 Physics I  3
  PHY 2048L Physics Lab I  1
  CHM 2045 Chemistry I  3
  CHM 2045L Chemistry Lab I  1
  EGN 3000 Foundations of Engineering  1
  Total 16

  **Semester 3**
  MAC 2283 Eng. Calculus III  4
  PHY 2049 Physics II  3
  PHY 2049L Physics Lab II  1
  EGN 3443 Eng. Prob. and Statistics  3
  EGN 3613 Eng. Econ.  3
  Total 14

  **Semester 4**
  MAP 2302 Differential Equations  3
  EGN XXXX Engineering Analysis  3
  EGN 3373 Electrical Systems I  3
  EEL 2161 EE Computing Methods  3
  EGN XXXX Eng. Electronic Materials  3
  Total 15

  **Summer Term**
  EGN 2031 History of Technology  3
  EEL XXXX Elec. Systems Environments  3
  ENC 3211 Comm. for Engineers  3
  Total 9

  **Semester 5**
  EEL 3100 Network Analysis  3
  EEL 4705 Logic Design  3
  EEL 4705L Logic Lab  1
  EEL 3301L Lab I (Circuits)  1
  EEL 4472 Electromagnetics  3
  EEL 4351 Semiconductor Devices  3
  Total 14

  **Semester 6**
  EEL 4102 Linear Systems Anal.  3
  EEL 3375 Indus. Mach. & Power Appl.  3
  EEL 4744 Microprocessors  3
  EEL 4744L Microprocessor Lab  1
  Total 15

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<td>EEL 3302</td>
<td>Electronics I</td>
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<td>EEL XXXX</td>
<td>Wireless Circuits &amp; Systems Lab</td>
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<td><strong>Semester 7</strong></td>
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<td>EEL 4906</td>
<td>Prof. Issues &amp; Eng. Design*</td>
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<td>EE Lab II (Electronics)</td>
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<td>EEL 4657</td>
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<td>EEL 4305</td>
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<td>EEL 4512</td>
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*This course fulfills a Major Works/Major Issues Requirement.

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