CIVIL ENGINEERING

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

LIMITED ACCESS PROGRAM: YES-THIS PROGRAM HAS ADDITIONAL ADMISSIONS REQUIREMENTS AS STATED BELOW.

CAMPUS(ES) WHERE OFFERED/CONTACT:
- TAMPA / Coordinator of Advising, Engineering, (813) 974-2684
- LAKELAND (Partial) / Advisor, Engineering, (941) 667-7011
- SARASOTA (Partial) / Advisor, Engineering, (941) 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)

Complete the A.A. degree at the community college. Some courses required for the major may also meet General Education Requirements thereby transferring maximum hours to the university. 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
  - USF C/C
  - MAC 2281 MAC 2311* Engineering Calculus I (4)
  - MAC 2282 MAC 2312 Engineering Calculus II (4)
  - MAC 2283 MAC 2313 Engineering Calculus III (4)
  - MAP 2302 MAP 2302* Differential Equations (4)

  *or MAC 2281, MAC 2282, MAC 2283

- Natural Sciences
  - USF C/C
  - CHM 2045 CHM 1045 General Chemistry I * (3)
  - CHM 2045L CHM 1045L General Chemistry I Laboratory* (1)
  - PHY 2048 PHY 2048 General Physics (3)
  - PHY 2048L PHY 2048L General Physics Laboratory (1)
  - PHY 2049 PHY 2049 General Physics (3)
  - PHY 2049L PHY 2049L General Physics Laboratory (1)

  *or CHS 1440 Chemistry for Engineers

- Strongly recommended:
  - Graphics
  - USF C/C
  - EGS 1113 EGS 1111 Introduction to Design Graphics (3)

Admission Requirements to the University Program of Study

This is a limited access program involving special admissions requirements. 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

Students should complete and submit an Engineering Admissions Application to the College of Engineering Advising Office. Freshmen and Sophomores must submit copies of high school transcripts, SAT and ACT test scores to the College of Engineering, Advising Office. This is in addition to records requested by the University’s Admissions Office. Transfer applicants must furnish transcripts from previously attended institutions to the College of Engineering, Advising Office. This is in addition to transcripts sent to the University’s Admissions Office. Applicants whose native language is other than English must submit TOEFL scores to the College of Engineering. The minimum TOEFL scores must be 550. Credentials must be received in the Engineering Advising Office 30 days prior to the date of applicable term. Failure to comply will result in the application being denied by the College of Engineering. Credentials will be held for one year. If application is not updated within that year, credentials must be re-submitted.

Engineering Admissions Requirements

Transfer students must have completed the equivalent USF Engineering Calculus sequence with a 2.0 GPA; must have completed one year of equivalent USF General Physics and Chemistry courses with a minimum of 2.0 GPA; must have an overall GPA of 2.0 or better.

Bachelor's Curricula - Civil Engineering Option

- CEG 4011 Soil Mechanics (3)
- CEG 4011L Geotech Lab (1)
- CES 3102 Structures I (3)
- CES 4605 Concepts of Steel Design (3)
- CES 4702 Concepts of Concrete Design (3)
- CGN 3021L C.E. Lab (2)
- CGN 4122 Professional & Ethical Issues (MW/MI) (3)
- CHM 2045 General Chemistry I (3)
- CHM 2045L Gen. Chemistry I Lab (1)
- CHM 2046 General Chemistry II (3)
- CWR 4202 Hydraulics (3)

Continued
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGN 3000</td>
<td>Foundations of Engineering</td>
<td>1</td>
</tr>
<tr>
<td>EGN 3311</td>
<td>Statics</td>
<td>3</td>
</tr>
<tr>
<td>EGN 3321</td>
<td>Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>EGN 3331</td>
<td>Mechanics of Materials</td>
<td>3</td>
</tr>
<tr>
<td>EGN 3331L</td>
<td>Mechanics of Materials Lab</td>
<td>1</td>
</tr>
<tr>
<td>EGN 3343</td>
<td>Thermodynamics I</td>
<td>3</td>
</tr>
<tr>
<td>EGN 3353</td>
<td>Fluid Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>EGN 3365</td>
<td>Materials</td>
<td>3</td>
</tr>
<tr>
<td>EGN 3373</td>
<td>Intro to Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td>EGN 3443</td>
<td>Engineering Statistics</td>
<td>3</td>
</tr>
<tr>
<td>EGN 3613</td>
<td>Engineering Economy</td>
<td>3</td>
</tr>
<tr>
<td>EGS 1113</td>
<td>Introduction to Design Graphics</td>
<td>3</td>
</tr>
<tr>
<td>ENC 1101</td>
<td>Freshman English I</td>
<td>3</td>
</tr>
<tr>
<td>ENC 1102</td>
<td>Freshman English II</td>
<td>3</td>
</tr>
<tr>
<td>ENC 4931</td>
<td>Engineering Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENV 3001</td>
<td>Environmental Engineering</td>
<td>3</td>
</tr>
<tr>
<td>GLY 3850</td>
<td>Geology for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>MAC 2281</td>
<td>Engineering Calculus I</td>
<td>3</td>
</tr>
<tr>
<td>MAC 2282</td>
<td>Engineering Calculus II</td>
<td>3</td>
</tr>
<tr>
<td>MAC 2283</td>
<td>Engineering Calculus III</td>
<td>3</td>
</tr>
<tr>
<td>MAP 2302</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>PHY 2048</td>
<td>General Physics I</td>
<td>3</td>
</tr>
<tr>
<td>PHY 2048L</td>
<td>General Physics I Lab</td>
<td>1</td>
</tr>
<tr>
<td>PHY 2049</td>
<td>General Physics II</td>
<td>3</td>
</tr>
<tr>
<td>PHY 2049L</td>
<td>General Physics II Lab</td>
<td>1</td>
</tr>
<tr>
<td>TTE 4004</td>
<td>Transportation</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Approved General Education Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>*ALAMEA Perspective Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>*Fine Arts Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>*Historical Perspectives Elective</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>*Social Science Electives</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>*MW/MI</td>
<td>3</td>
</tr>
</tbody>
</table>

Civil Engineering Concentration Requirements

A student must complete a minimum of 9 hours, with at least 2 courses from one group.

### Water Resources
- ENV 4502 Environmental Unit Operations (3)
- ENV 4101 Air Pollution Control (3)
- CWR 4103 Water Resources Engineering (3)

### Geotechnical/Transportation
- CEG 4012 Soil/Mechanics II (3)
- TTE 4005 Transportation Engineering II (3)
- CGN 4851 Cement and Concrete Design (3)
- CES 4141 Matrix Structural Analysis (3)
- ENV 4101 Air Pollution Control (3)

### Materials
- EGN 4366 Materials Engineering II (3)
- EMA 4324 Corrosion of Engineering Materials (3)
- CGN 4851 Cement and Concrete Design (3)

### Structural
- CES 4141 Matrix Structural Analysis (3)
- CES 4820 Timber & Masonry Design (3)
- CES 4561 Computer Aided Structural Design (3)
- CGN 4851 Concrete Construction Materials (3)
- EMA 4324 Corrosion of Engineering Materials (3)
- **CES 4720 Capstone Structural/Materials Design** (3)
- **CES 4740 Capstone Structural/Geotechnical Design** (3)

**If not used to satisfy Capstone Design requirements**

### Civil Engineering Capstone Design Requirements

A student must complete the capstone design course in his/her area of concentration.

### Water Resources
- CWR 4812 Capstone Water Resources Design (3)

### Geotechnical/Transportation
- CEG 4850 Capstone Geotechnical/Transportation Design (3)

### Materials
- CES 4720 Capstone Structural/Material Design (3)

### Structural
- CES 4740 Capstone Structural/Geotechnical Design (3)