

# UCF Degree Programs

## ELECTRICAL ENGINEERING TECHNOLOGY - ELECTRICAL SYSTEMS CONCENTRATION (B.S.E.E.T.)

College of Engineering and Computer Science  
Engineering Technology (ENT) Department  
ENGR 207, 407-823-4749; Fax: 407-823-4746  
<http://www.ent.ucf.edu>

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**Admission Requirements** none

### Degree Requirements

- Students should check with their ENT advisor frequently to ensure that they are making proper progress toward the degree.
- A grade of "C" (2.0) or better is required in all prerequisites and upper level courses.

### 1. UCF General Education Program (36+2 hrs)

- |   |       |
|---|-------|
| A. Communication Foundations                          | 9 hrs |
| 1. ENC 1101 & 1102                                    |       |
| 2. Prefer SPC 1016                                    |       |
| B. Cultural and Historical Foundations                | 9 hrs |
| C. Mathematical Foundations                           | 6 hrs |
| 1. Select MAC 1105                                    |       |
| 2. Select STA 2023                                    |       |
| D. Social Foundations                                 | 6 hrs |
| E. Science Foundations                                | 8 hrs |
| 1. Select PHY 2053C                                   |       |
| 2. Select BSC 1005/1005L, BSC 1050/1050L, or BSC2010C |       |

### 2. Common Program Prerequisites (CPP) (6/8 hrs)

- |  |                                   |         |
|--|-----------------------------------|---------|
| <b>(C 2.0) or better grades are required in all courses)</b> |                                   |         |
| MAC 2253   | Calculus I                        | 3/4 hrs |
| or MAC 2311  | Calculus w/Analytical Geometry I  |         |
| MAC 2254   | Applied Calculus II or equiv      | 3/4 hrs |
| or MAC 2312  | Calculus w/Analytical Geometry II |         |
| PHY 2053C  | College Physics I/Lab             | GEP     |
| or PHY 2048/L  | Physics for Engrs & Scientists I  |         |

See "Common Prerequisites" in the Transfer and Transitions Services section (pg. 46) for more information.

### 3. Engineering Technology Core Requirements (25 hrs)

#### (C 2.0) or better grades are required in all courses)

- |  |  |       |
|--|--|-------|
| BSC 1005/L, BSC 1050/L, GEO 1200/L, BSC2010C | GEP                                    |       |
| ENC 3241                                     | Writing for the Technical Professional | 3 hrs |
| MAC 1105                                     | College Algebra                        | GEP   |
| MAC 1114                                     | College Trigonometry                   | 3 hrs |
| MAC 2253                                     | Applied Calculus I                     | CPP   |
| or MAC 2311                                  |  |       |
| MAP 3401                                     | Problem Analysis                       | CPP   |
| or MAC 2312                                  | Calculus II                            |       |
| PHY 2053C                                    | College Physics I                      | CPP   |
| PHY 2054C                                    | College Physics II                     | 4 hrs |
| ETG 3541                                     | Applied Mechanics                      | 3 hrs |
| ETI 3651C                                    | Computer Applications                  | 3 hrs |
| ETI 3671                                     | Technical Economic Analysis            | 3 hrs |
| ETI 3116                                     | Applied Engrng Quality Assurance       | 3 hrs |
| ETI 4448                                     | Applied Project Management             | 3 hrs |
| STA 2023                                     | Statistical Methods I                  | GEP   |

### 4. Technical Specialization (56 hrs)

#### Lower Level Required and Elective Courses (24 hrs)

#### (C 2.0) or better grades are required in all courses)

- |           |                                 |       |
|-----------|---------------------------------|-------|
| EST 3543C | Programmable Logic Controllers  | 3 hrs |
| CET 3323C | Digital Fundamentals            | 4 hrs |
| CET 2364  | System Applications in C        | 3 hrs |
| EET 3143C | Electronic Devices and Circuits | 4 hrs |
| EET 2025C | Electrical Circuits             | 4 hrs |
| EET 3085C | Electricity and Electronics     | 4 hrs |
|           | Lower Level Technical Elective  | 2 hrs |

#### Upper Level Required Courses (23 hrs)

#### (C 2.0) or better grades are required in all courses)

- |           |                               |       |
|-----------|-------------------------------|-------|
| CET 3198C | Digital Systems               | 3 hrs |
| CET 3503  | Microcomputer Technology I    | 3 hrs |
| CET 4134C | Microprocessor Electronics II | 3 hrs |
| EET 3716  | Network Analysis              | 3 hrs |
| EET 4158C | Linear Integrated Circuits    | 3 hrs |
| EET 4548C | Power Systems                 | 4 hrs |
| EET 4732C | Feedback Control Systems      | 4 hrs |

### Upper Level Technical Electives (9 hrs)

#### Select 9 hours from courses listed below:

#### (C 2.0) or better grades are required in all courses)

- |           |                                |       |
|-----------|--------------------------------|-------|
| CET 4138C | Digital Programmable Devices   | 3 hrs |
| CET 4333  | Computer Organization & Design | 3 hrs |
| CET 4931  | Current Topics in Tech         | 3 hrs |
| EET 4329C | Communication Systems          | 4 hrs |
| EET 4339C | Antennas and Propagation       | 3 hrs |
| EET 4359C | Digital Communications         | 4 hrs |
| EST 3222  | Intro to Photonics             | 3 hrs |

### 5. Departmental Exit Requirement (3 hrs)

#### (C 2.0) or better grade is required )

- ETG 4950C Senior Design Project 3 hrs
- A grade of 2.0 or better is required in all prerequisites.

### 6. Foreign Language Requirements (0-8 hrs)

**Admission:** Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

**Graduation:** none

### 7. Approved Technical Electives

Students should consult with the ENT Department for a list of the approved technical electives and the terms when specific courses of this type are to be offered.

### 8. University Minimum Graduation Requirements

- A 2.0 UCF GPA
- 60 semester hours earned after any CLEP award
- 48 semester hours of upper division credit completed
- 30 of the last 36 hours of course work must be completed in residency at UCF
- 25% of course work must be completed in residency at UCF
- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
- Complete the General Education Program, the Gordon Rule, the CLAST, and nine semester hours of Summer credit (if applicable)

**Total Semester Hours Required: 128 hrs**

**Related Programs:** Electrical Engineering Technology (Computer Systems Concentration)

**Related Minors:** Interdisciplinary Informatics Technology

#### Transfer Notes:

- Students transferring from any Florida public institution with an AA degree or with the general education program (GEP) requirements of that institution met have thereby satisfied UCF GEP requirements.
- Students entering a UCF undergraduate program and having a previously earned baccalaureate degree from an accredited institution have thereby satisfied UCF GEP requirements. (See also the section on the GEP found elsewhere in this catalog.)
- Courses taken from Community Colleges do not substitute for Upper Division Courses.
- Courses transferred must be formally evaluated for equivalency credit. The student must provide all supporting information to the ENT Department for this evaluation.
- ENT Departmental Residency Requirements consist of at least 32 semester hours of regularly-scheduled 3000 or 4000 level courses taken from the UCF ENT Department.
- PHY 2048/L can substitute for PHY 2053C.

#### Program Academic Learning Compacts

- Program Academic Learning Compacts (student learning outcomes) for undergraduate programs are located at: [http://www.oas.ucf.edu/alc/academic\\_learning\\_compacts.htm](http://www.oas.ucf.edu/alc/academic_learning_compacts.htm)

### Tentative Course Schedule for the Electrical Systems Concentration

The tentative course schedule listed below is a guide for those students who plan on completing their engineering technology degree requirements in two years. Many students choose to spread out these requirements over a longer period of time. All engineering technology students should meet with their faculty advisor to develop and maintain an appropriate plan of study.

## Freshman Year

	13 hrs	Spring	12 hrs
Fall			
ENC 1101 Composition I	3	ENC 1102 Composition II	3
MAC 1105 College Algebra	3	STA 2023 Statistical Methods	3
Biological science	4	MAC 1114 Trigonometry	3
Cultural/Historical Foundation	3	Social Foundation	3

## Sophomore Year

	16 hrs	Spring	14/15 hrs
Fall			
SPC 1600 Oral Communications	3	MAC 2253 Applied Calc I	3/4
PHY 2053C College Physics I	4	<i>or</i> MAC 2311 Calc w Anly Geo	
Cultural/Historical Foundation	3	ETI 3116 App Eng Quality Assur	3
ETI 3651C Computer Appl	3	CET 3323C Digital Technology	4
CET 2364 Sys Appl in C	3	PHY 2054C College Physics II	4
Summer	7 hrs		
ENC 3241 Writing Tech Pros	3		
EET 3085C Electricity and Electro	4		

## Junior Year

	12/13 hrs	Spring	15 hrs
Fall			
MAP 3401 Problem Analysis	3/4	Cultural/Historical Foundation	3
<i>or</i> MAC 2312 Calculus II		EET 3716 Network Anals	3
<i>or</i> MAC 2254 Applied Calc II		CET 3198C Digital Systems	3
EET 2025C Electrical Circuits	4	ETI 3671 Tech Economic Analysis	3
ETG 3541 Applied Mechanics	3	Social Foundation	3
Lower level elective	2		
Summer	10 hrs		
CET 4134C Microprocessor Elec II	3		
EET 3143C Elect Devices and Circuits	4		
Upper level elective	3		

## Senior Year

	16 hrs	Spring	13 hrs
Fall			
EET 4548C Power Systems	4	ETG 4950C Sr. Design Proj	3
EET 4158C Linear Inf Cir	3	Upper level elective	3
EST 3543C Programmable Logic Cont	3	EET 4732C Feedback Control	4
Upper level elective	3	ETI 4448 Applied Project Mgmt	3
CET 3503 Microcom Tech I	3		