Bachelor of Science in Electrical Engineering (Changes effective spring 2016 unless otherwise noted.)

Admission **Requirements**
All students must meet the minimum admission requirements of the University. Please refer to the Admissions section of this catalog.

All students must meet the preprofessional requirements listed above in order to be accepted into the Electrical Engineering program.

Prerequisite **Coursework** **for** **Transfer** **Students**
Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the Intellectual Foundations Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the *Transfer Student Manual*.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

General **Degree** **Requirements**
The Bachelor of Science in Electrical Engineering degree will be awarded to students who:

1. Meet all University general degree requirements;

2. Satisfy the following specific degree requirements of the Electrical Engineering program.

Specific Degree Requirements	
General Education (1)	
Foundations of Written Communication	6
Foundations of Society and Human Behavior	6
Foundations of Global Citizenship	6
Foundations of Creative Expressions	6
Subtotal	**24**

Mathematics and Science (2) (Lower Division)		
Fundamentals of Engineering (3)	EGN 1002	3
~~Calculus for Engineers 1 (4)~~	~~MAC 2281~~	4
~~Calculus for Engineers 2 (4)~~	~~MAC 2282~~	4
Calculus with Analytic Geometry 1 (4)	MAC 2311	4
Calculus with Analytic Geometry 2 (4)	MAC 2312	4
Calculus with Analytic Geometry 3 (4)	MAC 2313	4
Engineering Mathematics 1	MAP 3305	3
C for Engineers	EEL 2161	3
General Physics for Engineers 1 (4) (Change effective summer 2016.)	PHY 2048 ~~2043~~	3
General Physics Lab 1 (4)	PHY 2048L	1
Physics for Engineers 2 (4)	PHY 2044	3
General Physics Lab 2 (4)	PHY 2049L	1

General Chemistry 1	CHM 2045	3
General Chemistry 1 Lab	CHM 2045L	1
Subtotal		**33**

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Electrical Engineering Core (5)		
Circuits 1	EEL 3111	3
Circuits 2	EEL 3112	~~3~~ 2
Introduction to Logic Design	CDA 3201C	4
Electronics 1	EEE 3300	4
Analysis of Linear Systems	EEL 4656	3
Stochastic Processes and Random Signal	EEE 4541	3
Electronics Laboratory 1	EEL 3118L	2
Electronics 2	EEE 4361	3
~~Electrical Engineering Practice~~	~~EEL 3012~~	~~1~~
Electromagnetic Fields and Waves	EEL 3470	4
Introduction to Microcontrollers	EEL 4746	3
Microcontroller Lab	EEL 4746L	1
Electronics Laboratory 2	EEL 4119L	3
Engineering Design 1	EGN 4950C	~~3~~ 2
Engineering Design 2	EGN 4952C	3
Communication Systems 1	EEL 4512	3
Control Systems 1	EEL 4652	3
Control Systems Lab	EEL 4652L	**or**
Communication Systems Lab	EEL 4512L	1
Introduction to Digital Signal Processing	EEE 4510	3
Subtotal		~~**53**~~ **50**

Electrical Engineering Electives (6)	~~9~~ 12
Electrical Engineering or Technical Electives (6) (7)	6
Mathematics Elective (6)	3
Total	**128**

Notes:

(1) Students entering FAU with less than 30 credits must satisfy the course requirements specified in the catalog section, Degree Requirements. Students entering FAU with more than 30 credits (transfer students) must see the undergraduate advisor for an evaluation of courses taken at another school. The general education requirements are normally satisfied if a student has an Associate of Arts (A.A.) degree from a Florida community or state college.

(2) Pre-engineering A.A. programs allow students to satisfy most or all of these required courses.

(3) Fundamentals of Engineering is the preferred course; however, this course may not be available at all institutions. In certain instances, substitutions for this course may be allowed provided that the credits are a part of an approved pre-engineering A.A. degree program.

(4) Grade of "C" or better is required.

(5)   Need   a   "C"   or   better   in   all   EE   core   courses.

(6)   All   EE   electives   must   be   approved   by   the   undergraduate   advisor.

(7) In general, a technical elective is defined as an upper-division course with significant technical disciplinary content. A maximum of 3 credits in Cooperative Education (EEL 4949) can be used as a technical elective.

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Cooperative   **Education**
Students in the Electrical Engineering program are encouraged to consider gaining practical experience through participation in Cooperative Education. Three, one-semester periods of Cooperative Education (EEL 4949) may be substituted for one program technical elective. For information, contact the FAU Career Center, 561-297-3533 or visit its website at www.fau.edu/cdc.

Note: No more than 6 credits of directed independent study may be applied toward the undergraduate degree.

Sample Four-Year Program of Study for Bachelor of Science in Electrical Engineering

First Year, Fall (14 credits)		
College Writing 1	ENC 1101	3
Calculus for Engineers1	MAC 2281	4
Calculus with Analytic Geometry 1	MAC 2311	4
General Chemistry 1	CHM 2045	3
General Chemistry 1 Lab	CHM 2045L	1
Fundamentals of Engineering	EGN 1002	3

First Year, Spring (14 credits)		
Foundations of Written Communication	-	3
General Physics for Engineers 1 (Change effective summer 2016.)	PHY 2048 2043	3
General Physics 1 Lab	PHY 2048L	1
Calculus for Engineers 2	MAC 2282	4
Calculus with Analytic Geometry 2	MAC 2312	4
C for Engineers	EEL 2161	3

Second Year, Fall (14 total credits)		
Calculus with Analytic Geometry 3	MAC 2313	4
Physics for Engineers 2	PHY 2044	3
General Physics 2 Lab	PHY 2049L	1
Foundations of Society and Human Behavior	-	3
Foundations of Creative Expressions	-	3

Second Year, Spring (14 total credits)		
Engineering Mathematics 1	MAP 3305	3
Circuits 1	EEL 3111	3

Foundations of Global Citizenship	-	3
Introduction to Logic Design	CDA 3201C	4
Electrical Engineering Practice	EEL 3012	1

Second Year, Summer (9 total credits)		
Foundations of Society and Human Behavior	-	6
Foundations of Global Citizenship	-	3
Foundations of Creative Expressions	-	3

Third Year, Fall (17 total credits)		
Electronics 1	EEE 3300	4
Electronics Laboratory 1	EEL 3118L	2
Circuits 2	EEL 3112	4
Electromagnetic Fields and Waves	EEL 3470	3
Introduction to Microcontrollers	EEL 4746	3
Microcontroller Lab	EEL 4746L	1

Third Year, Spring (15 total credits)		
Analysis of Linear Systems	EEL 4656	3
Electronics 2	EEE 4361	3
Control Systems 1	EEL 4652	3
Stochastic Processes and Random Signal	EEE 4541	3
Electrical Engineering Elective	-	3

Fourth Year, Fall (15 total credits)		
Electronics Laboratory 2	EEL 4119L	3
Engineering Design 1	EGN 4950C	3
Electrical Engineering or Technical Elective	-	3
Introduction to Digital Signal Processing	EEE 4510	3
Communication Systems	EEL 4512	3

Fourth Year, Spring (16 total credits)		
Engineering Design 2	EGN 4952C	3
Electrical Engineering Elective	-	6
Electrical Engineering or Technical Elective	-	3
Communication Systems Lab	EEL 4512L	or
Control Systems Lab	EEL 4652L	1
Math Elective	-	3
Total credits	-	**128**

List of Possible Mathematics Elective Courses:		
Matrix Theory	MAS 2103	3

Discrete Mathematics	MAD 2104	3
Numerical Methods	MAD 3400	3
Introductory Complex Analysis	MAA 4402	3
Engineering Mathematics 2	MAP 4306	3
Linear Algebra 2	MAS 4107	3
Mathematical Methods for Physics *(Changes effective fall 2016.)*	PHZ 4113 3113	4
Introduction to Queueing Theory	MAP 4260	3
Special Topics *(Requires undergraduate advisor approval.)*	EEL 4930	3

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Approved by:	Date:
Department Chair: _Murguy Erdot_	_3/22/16_
College Curriculum Chair: _DiM_	_3/22/16_
College Dean: _Unrall_	_3/22/2016_
UUPC Chair: _J F M_	_4/1/16_
Undergraduate Studies Dean: _Edul E Pratt_	_4/6/16_
UFS President: _____	_____
Provost: _____	_____