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|  FLORIDA ATLANTIC UNIVERSITY | NEW/CHANGE PROGRAM REQUEST Undergraduate Programs | UUPC Approval <u>2-1-21</u> UFS Approval _____ Banner Posted _____ Catalog _____ |
| | Department CEECS College CoE&CS | |
| Program Name BSCE Computer Engineering | <input type="checkbox"/> New Program <input checked="" type="checkbox"/> Change Program | Effective Date <small>(TERM & YEAR)</small> Fall 2021 |
| Please explain the requested change(s) and offer rationale below or on an attachment Minor catalog changes required by ABET 2020 review. 1. All courses that count toward the degree must be completed with grade of "C" or better. 2. Math minors can substitute STA4032 for STA4821 3. Beyond 30 credits, students may substitute a computer engineering technical elective for EGN1002-Fundamentals of Engineering 4. Cleaned up the subscripts in the curriculum tables to match | | |
| Faculty Contact/Email/Phone Hanqi Zhuang/zhuang@fau.edu/7-3413 | Consult and list departments that may be affected by the change(s) and attach documentation | |
| Approved by Department Chair <u>Hanqi Zhuang</u> College Curriculum Chair <u>Dan Meeroff</u> College Dean <u>Frederick Bloetscher</u> UUPC Chair <u>Jerry Haky</u> Undergraduate Studies Dean <u>Edward Pratt</u> UFS President _____ Provost _____ | | Date <u>1-15-21</u> <u>1-19-21</u> <u>1-20-21</u> <u>2-2-21</u> <u>2-2-21</u> _____ _____ |

Email this form and attachments to mjenning@fau.edu one week before the UUPC meeting so that materials may be viewed on the UUPC website prior to the meeting.

Bachelor of Science in Computer Engineering

(Requires 124 credits.)

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 Computer 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 [Transition Guides](#) and below.

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 Computer Engineering **The minimum number of credits required for the Bachelor of Science in Computer Engineering degree is 124 credits. All courses that count toward the degree must be completed with a grade of "C" or better. This degree** will be awarded to students who meet all admission and degree requirements of the department and the University. Notes below are referred to in the tables following the list.

Notes:

(1) Students entering FAU with fewer 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. **Note: Once students earn beyond 30 credits, they may take a computer engineering elective to substitute for EGN 1002, Fundamentals of Engineering.**

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

(3) A "C" or better is in all Computer Engineering core courses.

(4) All technical electives must be approved by the undergraduate advisor. In general, a technical elective is defined as an upper-division course with significant technical disciplinary content. See advisor for approved courses.

(3) For those students who are also pursuing a math minor, STA4032, Probability and Statistics for Engineers, can be substituted for STA 4821, Stochastic Models for Computer Science.

(4) See advisor for approved courses.

| 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 Humanities | 6 |
| Subtotal | 24 |

| Mathematics and Science (Lower Division) | | |
|---|-----------|-----------|
| Calculus with Analytic Geometry 1 (2) | MAC 2311 | 4 |
| Calculus with Analytic Geometry 2 (2) | MAC 2312 | 4 |
| Calculus with Analytic Geometry 3 (2) | MAC 2313 | 4 |
| Engineering Mathematics 1 | MAP 3305 | 3 |
| General Physics for Engineers 1 (2) | PHY 2048 | 3 |
| General Physics Lab 1 (2) | PHY 2048L | 1 |
| Physics for Engineers 2 (2) | PHY 2044 | 3 |
| General Physics Lab 2 (2) | PHY 2049L | 1 |
| Science (5) | | 4 |
| Subtotal | | 27 |

| Computer Engineering Core Courses (3) | | |
|--|-----------|-----------|
| Foundations of Computer Science | COP 3014 | 3 |
| Introduction to Logic Design | CDA 3201C | 4 |
| Introduction to Microprocessor Systems | CDA 3331C | 3 |
| Introduction to Programming in C | COP 2220 | 3 |
| Data Structures and Algorithm Analysis | COP 3530 | 3 |
| Computer Operating Systems | COP 4610 | 3 |
| Principles of Software Engineering | CEN 4010 | 3 |
| RI: Engineering Design 1 (Course research intensive eff. spring 2021) | EGN 4950C | 3 |
| RI: Engineering Design 2 (Course research intensive eff. spring 2021) | EGN 4952C | 3 |
| Discrete Mathematics | MAD 2104 | 3 |
| Stochastic Models for Computer Science (3) | STA 4821 | 3 |
| Subtotal | | 34 |

| Computer Engineering Electives (3) (select four of the following) | | |
|---|----------|-----------|
| Structured Computer Architecture | CDA 4102 | 3 |
| Introduction to Computer Systems Performance Evaluation | CEN 4400 | 3 |
| Introduction to Embedded System Design | CDA 4630 | 3 |
| Introduction to VLSI | CDA 4210 | 3 |
| Introduction to Data Communications | CNT 4104 | 3 |
| Computer Network Projects | CNT 4713 | 3 |
| Mobile App Projects | COP 4655 | 3 |
| CAD-Based Computer Design | CDA 4204 | 3 |
| Subtotal | | 12 |

| Other Engineering (3) | | |
|-------------------------------------|----------|---|
| Fundamentals of Engineering (2) (1) | EGN 1002 | 3 |

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|--------------------------|-----------|-----------|
| Circuits 1 | EEL 3111 | 3 |
| Electronics 1 | EEE 3300 | 4 |
| Electronics Laboratory 1 | EEL 3118L | 2 |
| Subtotal | | 12 |

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| Technical Electives (as approved by advisor) (4), (5) (2) | | 15 |
| Total | | 124 |

Sample Four-Year Program of Study

For the sample four-year program of study for the Bachelor of Science in Computer Engineering, refer to the [Curriculum Sheets and Flight Plans](#) by major.