

 <b>FLORIDA ATLANTIC UNIVERSITY</b>	<b>NEW/CHANGE PROGRAM REQUEST</b> <b>Undergraduate Programs</b>	UUPC Approval <u>4-25-22</u> UFS Approval _____ Banner Posted _____ Catalog _____
	<b>Department</b> Electrical Engineering and Computer Science  <b>College</b> Engineering & Computer Science	
<b>Program Name</b> Bachelor of Arts in Computer Science	<input type="checkbox"/> <b>New Program</b>  <input checked="" type="checkbox"/> <b>Change Program</b>	<b>Effective Date</b> (TERM & YEAR)  Fall 2022
<b>Please explain the requested change(s) and offer rationale below or on an attachment</b>  The Bachelor of Arts in Computer Science (B.A.C.S.) currently has 39 core credits for completion. This change reduces core to 36 credits and electives are increased from 18 to 21. This change gives more flexibility for students in course selection. Total credits for the degree remains at 120.		
<b>Faculty Contact/Email/Phone</b> Hanqi Zhuang, zhuang@fau.edu. 561-297-3413	<b>Consult and list departments that may be affected by the change(s) and attach documentation</b>	
<b>Approved by</b> Department Chair _____ College Curriculum Chair <u>Hongbo Su</u> College Dean _____ UUPC Chair _____ Undergraduate Studies Dean <u>Dan Meeroff</u> UFS President _____ Provost _____	<b>Date</b> 04/06/2022  <u>4/14/22</u> 4-25-22 4-25-22 _____ _____	

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

ALL CHANGES SHOWN IN GREEN – strikethrough text

## Bachelor of Arts in Computer Science

(Requires 120 credits.)

### Admission Requirements

All students must meet the minimum admission requirements of the University. Please refer to the [Admissions](#) section of this catalog.

The Bachelor of Arts in Computer Science (B.A.C.S.) with Major in Computer Science is intended for students interested in software development. The program prepares students for a career in the field of Computer Science with focus on software development. The B.A. in Computer Science is accredited by the Southern Association of Colleges and Schools Commission on Colleges, but unlike FAU's B.S. in Computer Science, it is not accredited by the Engineering Accreditation Commission of ABET.

### 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 an Associate in Arts (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](#).

All courses not listed with 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.

### Degree Requirements

The minimum number of credits required for the Bachelor of Arts in Computer Science (B.A.C.S.) degree is 120 credits. This degree will be awarded to students who satisfy all admission and degree requirements for the department.

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 satisfied normally if a student has an Associate in Arts (A.A.) degree from a Florida community or state college.

Students must complete ~~39~~ 36 credits of **B.A.C.S.** courses and 18 credits of **Computer Science Electives** with a grade of "C" or better.

**Pass/Fail Grades:** Courses taken as pass/fail will not be accepted for Computer Science students.

Specific Degree Requirements	
<b>General Education</b>	
Foundations of Written Communication	6
Foundations of Society and Human Behavior	6
Foundations of Global Citizenship	6
Foundations of Humanities	6
Foundations of Science and the Natural World	6
<b>Subtotal</b>	<b>30</b>

<b>Mathematics</b>		
Methods of Calculus	MAC 2233	3

Introductory Statistics	STA 2033	3
<b>Subtotal</b>		<b>6</b>

<b>B.A.C.S. Courses</b>		
Introduction to Data Science and Analytics	CAP 4773	3
Computer Logic Design	CDA 3203	3
Principles of Software Engineering	CEN 4010	3
Software Engineering Project	CEN 4910 or	3
Mobile App Project	COP 4655	3
Introduction to Programming in Python	COP 2034	3
Data Structures and Algorithm Analysis with Python	COP 3410	3
Introduction to Database Structures	COP 3540	3
Introduction to Internet Computing	COP 3813	3
Python Programming	COP 4045	3
Object-Oriented Design and Programming	COP 4331	3
Computer Operating Systems	COP 4610	3
Advanced Database Systems	COP 4703	3
Foundations of Computing	COT 2000	3
<b>Subtotal</b>		<b>39 36</b>

Computer Science Electives	<b>18 21</b>
Free Electives	27
<b>Total</b>	<b>120</b>

### Computer Science Electives

To satisfy the Computer Science (CS) elective requirement, all students must take **18 21** credits chosen from Computer Science and Computer Engineering upper-division courses that are not in the Computer Science Core. Certain 5000-level or 6000-level courses may be taken as CS electives. Students must see an advisor for a current list of elective courses. Students seeking a specialty may consider taking electives in an area of study. A few suggested areas of concentration follow.

<b>Internet Technology</b>		
Introduction to Data Communication	CNT 4104	3
Foundations of Cybersecurity	CNT 4403	3
Mobile App Projects	COP 4655	3
Advanced Database Systems	COP 4703	3
<b>Cybersecurity</b>		
Cyber Physical System Security	CIS 4213	3
Operating Systems Security	CIS 4367	3
Foundations of Cybersecurity	CNT 4403	3
Network and Data Security	CNT 4411	3
<b>Data Science</b>		
Introduction to Deep Learning	CAP 4613	3
Introduction to Artificial Intelligence	CAP 4630	3

Introduction to Data Mining and Machine Learning	CAP 4770	3
<b><i>The following courses may be taken as Computer Science electives</i></b>		
Directed Independent Study	COT 4900	1-3
Topics in Computer Science and Engineering	COT 4930	1-3
Topics in Computer Science	COT 5930	1-3

### **Second Bachelor's B.A.C.S. Degree**

This program is for those individuals with a degree in another discipline who are seeking a Bachelor of Arts with Major in Computer Science degree at FAU.

### **Admission Requirements**

Students seeking a bachelor's degree or graduate degree in another discipline must satisfy all admission requirements of the first B.A.C.S. at FAU.

### **Degree Requirements**

The minimum number of FAU credits needed to earn a second bachelor's degree in B.A.C.S. is 30 credits at the 3000 level or higher.

1. Students must have completed ~~39~~ 36 credits of core courses in the B.A.C.S. program. Each course must be completed with a minimum grade of "C."
2. Students must have completed 6 credits of Computer Science electives. Each course must be completed with a minimum grade of "C."
3. Students must have completed the math prerequisites necessary to take the core and elective courses in the program.

### **Professional Bachelor of Arts in Computer Science**

The Bachelor of Arts in Computer Science (B.A.C.S.) Professional Program is designed specifically for working professionals who may advance their careers with an accelerated undergraduate program and obtain a bachelor's degree in Computer Science while continuing to work in their professional careers. The Professional program includes evenings, weekends and online materials using Canvas. This degree program requires 36 core computer science credits and 6 credits of computer science electives. The duration of each course may be four, eight or sixteen weeks depending on the course format. Students are normally expected to complete the program in two years.

### **Admission/Degree Requirements**

Applicants are required to meet the same admission and degree requirements as for the Second Bachelor's Degree in B.A.C.S.

### **Program Fees**

The B.A.C.S. Professional Program is a full-service, all-inclusive program. The fees cover all program costs including tuition, course materials and graduation activities.

### **Application Process and More Information**

To apply or receive more information about this program, visit the Electrical Engineering and Computer Science [website](#) or call 561-297-3855.

### **Sample Four-Year Program of Study**

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