

 FLORIDA ATLANTIC UNIVERSITY	NEW/CHANGE PROGRAM REQUEST Undergraduate Programs	UUPC Approval <u>3/25/24</u> UFS Approval _____ Banner _____ Catalog _____
	Department _____ College _____	
Program Name	New Program* _____ Change Program* _____	Effective Date (TERM & YEAR)
<p>Please explain the requested change(s) and offer rationale below or on an attachment.</p>		
<p>*All new programs and changes to existing programs must be accompanied by a catalog entry showing the new or proposed changes.</p>		
Faculty Contact/Email/Phone	Consult and list departments that may be affected by the change(s) and attach documentation	
Approved by		Date
Department Chair <u>Hai-Kava</u>		<u>2/12/2023</u>
College Curriculum Chair <u>Hongbo Su</u>		<u>3/12/24</u>
College Dean <u>Korey Sorge</u>		<u>3/12/24</u>
UUPC Chair <u>Dan Meeroff</u>		<u>3/25/24</u>
Undergraduate Studies Dean _____		<u>3/25/24</u>
UFS President _____		_____
Provost _____		_____

Email this form and attachments to mjenning@fau.edu seven business days before the UUPC meeting.

COMPUTER SCIENCE

BACHELOR OF ARTS IN COMPUTER SCIENCE (B.A.C.S.)

(Minimum of 120 credits required)

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 36 credits of *B.A.C.S.* courses and 21 credits of *Computer Science Electives* with a grade of "C" or better.

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

Specific Degree Requirements

General Education

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
Subtotal	30

Mathematics

Methods of Calculus	MAC 2233
Introductory Statistics	STA 2033

Subtotal

B.A.C.S. Courses

Introduction to Data Science and Analytics	CAP 4773	3
Computer Logic Design	CDA 3203	3
Principles of Software Engineering	CEN 4010	3
Introduction to Programming in Python	COP 3035 <u>COP 3035C</u>	3

Data Structures and Algorithm Analysis with Python	COP 3410 <u>COP 3410C</u>	3
Introduction to Database Structures	COP 3540	3
Introduction to Internet Computing	COP 3813	3
<u>Introduction to Web Programming</u>	<u>COP 3826</u>	<u>3</u>
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 2000C	3
<u>Introduction to Software Design</u>	<u>CEN 3062C</u>	<u>3</u>
<u>Design and Analysis of Algorithms</u>	<u>COT 4400</u>	<u>3</u>
<u>Introduction to AI</u>	<u>CAP 4630</u>	<u>3</u>
<u>Foundations of Cybersecurity</u>	<u>CNT 4403</u>	<u>3</u>
Subtotal		36

Computer Science Electives	21
Free Electives	27
Total	120

Computer Science Electives

All students must take 21 credits of approved elective courses. Certain 3000- and 4000-level courses offered by the Electrical Engineering and Computer Science Department may be used as Computer Science electives. Certain 5000- or 6000-level courses offered by the Electrical Engineering and Computer Science Department may be taken as Computer Science electives. Students must see an advisor for a current list of elective courses. Students seeking a specialty may consider taking electives in ~~an area~~ areas of study such as internet technology, software engineering, artificial intelligence and machine learning, and cybersecurity. ~~A few suggested areas of concentration follow.~~

Internet Technology

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
<u>Cybersecurity</u>		
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
Machine Learning and Data Science		
Introduction to Deep Learning	CAP 4613	3
Introduction to Artificial Intelligence	CAP 4630	3
Introduction to Data Mining and Machine Learning	CAP 4770	3

The following courses may be taken as Computer Science electives

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
Professional Internship	IDS 3949	0-3

Students are permitted to take no more than the equivalent of one course (3 credits) of the following three courses as a Computer Science elective.

The following courses may be taken as a Computer Science elective.

Professional Internship	IDS 3949	0-3
Directed Independent Study	COT 4900	1-3
Directed Independent Research	EGN 4915	1-3

Professional Internship

Students must have completed COP 3410C, Data Structures and Algorithm Analysis with Python, with a minimum grade of "C" before being eligible to register for a professional internship. Approval through the Career Center is required prior to enrollment.

Directed Independent Study and Directed Independent Research

Students must have completed COP 3410C, Data Structures and Algorithm Analysis with Python, with a minimum grade of "C" before being eligible to register for Directed Independent Study or Directed Independent Research.

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 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 (B.A.C.S.) is 30 credits at the 3000 level or higher.

1. Students must have completed 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.

~~COMPUTER SCIENCE~~

~~BACHELOR OF ARTS IN COMPUTER SCIENCE (B.A.C.S.) PROFESSIONAL PROGRAM~~

~~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. To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>.

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.