NEW/CHANGE PROGRAM REQUEST
Undergraduate Programs

FLORIDA ATLANTIC UNIVERSITY

Department Comput & Electr Eng and Comput Sci.

College Engineering and Computer Science

UUPC Approval _3-29-21_

UFS Approval _____

Banner Posted _____

Catalog _____

Program Name

Bachelor of Arts in Computer Science (BACS)

[✓] **New Program**

[ ] **Change Program**

Effective Date
(TERM & YEAR)

Spring 2021

Please explain the requested change(s) and offer rationale below or on an attachment

The CEECS department currently offers BS in Computer Science program, which is a program for students to study computers, computer software and computation systems including their theory, design, development, and application.

The Bachelor of Arts in Computer Science program is a new option for students who are interested in design and development of computer software.

The major difference between BSCS and BACS is that the former covers all aspects including theoretical foundations, software, and systems, and the latter more on software development.

Both BACS and BSCS share the same CIP code for Bachelor of Computer Science. Therefore since FAU already offers a degree in this CIP code, the same justification for the BS degree applies here. This degree has lesser academic requirements and will not be accredited, so may be accessible to a wider range of students

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Faculty Contact/Email/Phone

Hanqi Zhuang, zhuang@fau.edu

Consult and list departments that may be affected by the change(s) and attach documentation

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Approved by

		Date
Department Chair	Hanqi Zhuang — Digitally signed by Hanqi Zhuang Date: 2021.03.24 14:13:15 -04'00'	
College Curriculum Chair	_Dan Meeroff_	3-18-21
College Dean	_Frederick Bloetscher_	3-29-21
UUPC Chair	_Jerry Haky_	3-29-21
Undergraduate Studies Dean	_Edward Pratt_	3-29-21
UFS President		
Provost		

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.

FAUprogramchangeUG, created December 2017

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.) is intended for students interested in computer programming. The program prepares students for a career in the field of Computer Science with focus on software development. The B.A.C.S. in Computer Science is SACS accredited, but unlike our B.S.C.S. in Computer Science, it is non-ABET accredited.

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.*

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 credits of **Computer Science Core** 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	
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**

Math		
Methods of Calculus	MAC 2233	3
Introductory Statistics	STA 2033	3
Subtotal		**6**

Computer Science Core		
Programming for Everyone	COP 1034C	3
Foundations of Computing	COT 2004	3
Introduction to Programming in Python	COP 2034	3
Data Structures and Algorithm Analysis with Python	COP 3410	3
Introduction to Internet Computing	COP 3813	3
Structured Computer Architecture	CDA 4102	3
Computer Operating Systems	COP 4610	3
Introduction to Database Structures	COP 3540	3
Principles of Software Engineering	CEN 4010	3
Python Programming	COP 4045	3
Object-Oriented Design and Programming	COP 4331	3
Software Engineering Project or Mobile App Project	CEN 4910 or COP 4655	3
Applied Database Systems	COP 4703	3
Subtotal		**39**

Computer Science Electives	18
Free Electives	27
TOTAL	**120**

Computer Science Electives

To satisfy the computer science (CS) elective requirement, all students must take 18 credits chosen from Computer Science and Computer Engineering upper-division courses that are not in the above CS 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.

Internet Technology		
Introduction to Data Communications	CNT 4104	3
Foundations of Cybersecurity	CNT 4403	3
Mobile App Projects	COP 4655	3
Applied Database Systems	COP 4703	3

Cybersecurity		

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

Data Science		
Introduction to Deep Leaning	CAP 4613	3
Introduction to Artificial Learning	CAP 4630	3
Introduction to Data Mining and Machine Learning	CAP 4770	3
Introduction to Data Science and Analytics	CAP 4773	3

The following courses may be taken as computer science electives:

Topics in Computer Science	COT 4930	1-3
Topics in Computer Science	COT 5930	1-3
Directed Independent Study	COT 4900	1-3

Sample Four-Year Program of Study
For the sample four-year program of study for the Bachelor of Science with Major in Computer Engineering, refer to the Curriculum Sheets and Flight Plans by major.