



Bachelor of Science Applied Computer Science



Program Purpose: Taught by a talented and dedicated faculty that combines quality academic standing with real-world skills and expertise, the curriculum equips graduates with the ability to solve problems with computer programs, think critically, administer databases and assist in the administration of networking.

A student tutoring program dedicated to student success is provided through the program as well as an active computer science student organization that organizes academic events, fun outings and networking opportunities with potential employers. TROY's reputation and partnerships within the field of computer sciences provides students with excellent internship opportunities that can potentially lead to employment with businesses in Alabama and beyond.

As a TROY student, you will benefit from a caring and approachable faculty and learn to work individually and as a member of a team on projects that include game designs, cell phone apps, web applications and visualization, among others. You will be engaged in course projects and software engineering courses that will prepare you for all of the technological advances in the field.

Graduates of the program are prepared to enter the workforce with the skills necessary to succeed in an ever-expanding and potentially lucrative field.

(For complete details on this program including course descriptions, academic policies, etc. please refer to the Troy University catalog at <https://www.troy.edu/academics/catalogs/2019-20/index.html#Undergraduate> and <https://www.troy.edu/academics/academic-programs/applied-computer-science.html>)

While this program will enjoy wide appeal from CCAF students studying a broad range of career fields, it is believed that this program will be of particular interest to CCAF students completing the AAS degree in **Air and Space Operations Technology, Cybersecurity, Intelligence Studies and Technology, Business Administration, Computer Science Technology, Information Systems Technology, Intelligence Studies and Technology, and Occupational Safety**. It may also have interest for CCAF students completing the AAS in **Education Training and Management, Mass Communications and Financial Management**.

The BS Degree in Applied Computer Science at Troy University **requires:**

1. **47** hours of General Studies classes
2. **36** hours of Major requirements
3. **18** semester hours of a **Military Operations** minor (usually satisfied by technical education classes at CCAF).
4. **19** hours of free electives (approved by Academic Advisor)

Troy University

Air University Associate to Baccalaureate Cooperative (AU-ABC) Bachelor of Science in Applied Computer Science

Degree Requirement	Required Semester Credits	CCAF Transfer Credits	Credits to take at TROY
Major Courses	36	0	36
CS 2250 Computer Science I	3		3
CS 2255 Computer Science II	3		3
CS 2265 Advanced Programming I	3		3
CS 3330 Data Structure and Algorithms	3		3
CS 4420 Introduction to Database Systems	3		3
CS 4443 Web-based Software Development	3		3
CS 4445 Data Communication and Networking	3		3
CS 4447 System Analysis and Design	3		3
CS 4448 Operating Systems	3		3
Major Electives (select 3)	9		
CS 3320 Business Systems Programming	3		3
CS 3332 Software Engineering I	3		3
CS 3347 Advanced Programming II	3		3
CS 4449 Applied Networking	3		3
CS 4451 Computer Security	3		3
CS 4495 Special Topics in Computer Science	3		3
CS 4480 Study Abroad in Computer Science	3		3
CS 4499 Internship in Computer Science	3		3
CS 4410 Introduction to Machine Learning	3		3
Military Operations Minor	18	18	0
Satisfied by LMMS and Technical Courses from the CCAF AAS degree program	18	18	0

As per the below, 15 semester hours of General Studies should transfer from the CCAF AAS Degree to TROY University to fulfill the following requirements: ENG1101, MTH2201 (Calculus) or Higher – (a grade of C or higher is required in English and in Math), Communication (Area II), Humanities (Area II), Social Science (Area IV).

Students who have taken a Math course at a lower level than those above will not receive credit for this course and will be required to successfully complete the course at TROY.

Degree Requirements	Required Semester Credits	CCAF Transfer Credits	Credits to take at TROY
General Education + Electives	66	44	22
General Education – Area I and II	18	9	9
ENG1101 – Comp and Modern English I (required) <i>A grade of C or above is required in ENG1101 & 1102</i>	3	3	
ENG1102 – Comp and Modern English II (required)	3		3
1000–2000 level course within Literature (3 hours)	3		3
1000–2000 level course with the Fine Arts (3)	3		3
1000–2000 level courses within the Humanities (6)	6	6	
Area III (11 hours required)	11	7	4
MTH 2201 or higher (A grade of C or better required)	3	3	
8 semester hours of any 1000–2000 level laboratory science class (class and lab required) in Biology, Chemistry, Physics, Physical Science or other Science Areas. (Working with an Advisor from TROY, one required Science Courses may be earned through CCAF Electives)	8	4	4
Area IV (12 hours required)	12	6	6
Any 1000–2000 level course with a focus in History.			3
9 hours of 100–2000 level courses from the Social Sciences (Anthropology, Business, CJ., Econ, Geography, History, Human Services, Nursing, Leadership, Poli Sci, Psych, Religion, Sociology.		3	
A 6 semester hour sequence in Literature or History is required. Please remember this requirement when selecting courses in Area I / II and IV.		3	3
Area V	6	3	3
IS2241 Computer Concepts (required)	3	3	
TROY1101 University Orientation (required)	1	Waived	
MTH 2215 Discreet Mathematics (required)	3		3
Electives	19	19	0
Approved Electives (CCAF Tech Electives / Electives)	19	19	0
Totals	120	62	58

Actual number of transfer credit hours awarded (and therefore the number of hours to be completed at TROY) will be based on actual courses completed successfully at CCAF for which there exists a TROY equivalent and could be slightly more or less than the 60 hours in the example above. Students considering completing this BS degree at Troy University are encouraged to contact a military student advisor at TROY as early as possible so as to ensure maximum transferability and a smooth transition.

For students who have not taken a Computer Concepts (or similar) class, TROY recommends the completion of the Information Systems CLEP.

(as at 09/25/2019)