

Student ID: _____
 Student Name: _____
 Adviser Name: _____

Catalog: 2019-2020 Undergraduate Catalog
 Program: Computer Science, BA
 Minimum Credits Required: _____

Computer Science, BA

Program Description

The Bachelor of Arts in Computer Science is ideal for students interested in acquiring a broad-based liberal arts education that includes a strong and solid understanding of computer science. The curriculum is oriented toward design, implementation, and application of computer software systems to solve information processing problems. The program prepares students for employment in the computer software field or for continued study toward an advanced degree in computer science. Additional information about the major, curriculum, and advising can be found at <http://www.clemson.edu/computing/>.

Students who change majors into Computer Science must have a cumulative grade-point average of 2.0 or higher.

Program Requirements

Freshman Year

First Semester

Course Name	Credit Hours	Term Taken	Grade	Gen Ed
ENGL 1030 - Composition and Rhetoric	3 Credits			
MATH 1020 - Business Calculus I ¹ <i>or</i>	3 Credits			
MATH 1060 - Calculus of One Variable I ¹	4 Credits			
<ul style="list-style-type: none"> • Modern Language Requirement 4 Credits ² • Introduction to Computing Requirement 4 Credits ³ • Elective 1 Credits ¹ 				

Credit Hours: 15

Second Semester

Course Name	Credit Hours	Term Taken	Grade	Gen Ed
MATH 2070 - Business Calculus II ¹ <i>or</i>	3 Credits			
MATH 1080 - Calculus of One Variable II ¹	4 Credits			
<ul style="list-style-type: none"> • Arts and Humanities (Non-Lit.) Req. 3 Credits ⁴ • Modern Language Requirement 4 Credits ² • Introduction to Computing Requirement 4 Credits ³ • Elective 1 Credits ¹ 				

Credit Hours: 15

Sophomore Year

First Semester

Course Name	Credit Hours	Term Taken	Grade	Gen Ed
CPSC 2070 - Discrete Structures for Computing ⁵	3 Credits			
CPSC 2120 - Algorithms and Data Structures	4 Credits			
<ul style="list-style-type: none"> • Arts and Humanities (Literature) Requirement 3 Credits ⁴ • Modern Language Requirement 3 Credits ² • Oral Communication Requirement 3 Credits ⁶ 				

Credit Hours: 16

Second Semester

Course Name	Credit Hours	Term Taken	Grade	Gen Ed
CPSC 2150 - Software Development Foundations	3 Credits			
CPSC 2310 - Introduction to Computer Organization	4 Credits			
CPSC 2920 - Computing, Ethics and Global Society ⁷	3 Credits			
<ul style="list-style-type: none"> • Modern Language Requirement 3 Credits ² • Elective 1 Credit 				

Credit Hours: 14**Junior Year****First Semester**

Course Name	Credit Hours	Term Taken	Grade	Gen Ed
STAT 3090 - Introductory Business Statistics ⁸	3 Credits			
<ul style="list-style-type: none"> • Computer Science Technical Requirement 6 Credits ⁹ • Minor Requirement 3 Credits • Natural Science Requirement 3 Credits ¹⁰ 				

Credit Hours: 15**Second Semester**

- Computer Science Technical Requirement 3 Credits ⁹
- Minor Requirement 3 Credits
- Natural Science Requirement 4 Credits ¹⁰
- Social Science Requirement 3 Credits ⁴
- Writing Requirement 3 Credits ¹¹

Credit Hours: 16**Senior Year****First Semester**

- Computer Science Technical Requirement 6 Credits ⁹
- Departmental Humanities Requirement 3 Credits ¹²
- Minor Requirement 3 Credits
- Social Science Requirement 3 Credits ⁴

Credit Hours: 15**Second Semester**

- Computer Science Technical Requirement 6 Credits ⁹
- Fine Arts Requirement 3 Credits ¹³
- Minor Requirement 6 Credits

Credit Hours: 15**Total Credits: 121****Footnotes**

¹ Select either the MATH 1020/MATH 2070, MATH 1060/MATH 2070, or MATH 1060/MATH 1080 sequence. Students who select the MATH 1060/MATH 1080 sequence will have satisfied the elective credits in the freshman year. Students interested in computer graphics should select the MATH 1060/MATH 1080 sequence.

² Students must complete through 2020 in a modern language. See Modern Languages Requirement at Clemson University statement in Academic Regulations.

³ Select either the CPSC 1010 and CPSC 1020 sequence; or the CPSC 1060 and CPSC 1070 sequence. The sequence of CPSC 1110 and CPSC 1020 is also acceptable with one elective credit taken in the first semester.

⁴ See General Education Requirements.

⁵ MATH 1190 or MATH 4190 may be substituted.

⁶ Select from: COMM 1500, COMM 2500, HON 2230; or the cluster of courses AS 3090, AS 3100, AS 4090, AS 4100; or ML 1010, ML 1020.

⁷ CPSC 2920 satisfies the Science and Technology in Society General Education Requirement.

⁸ MATH 3020 or MATH 3110 or STAT 3300 may be substituted. MATH 3110 is required for computer graphics courses.

⁹ Select from 3000-level or higher CPSC courses. No more than three credits of CPSC 3990 or CPSC 4810 may be applied to this requirement, and no more than six credits of CPSC 4820 may be applied. Up to three credits of ECE 3000-level or higher courses; or MATH 3650; or MATH 4000-level courses may be substituted (except MATH 4190).

¹⁰ Select from courses in BIOL, BCHM, CH, GEOL, MICR, PHYS; or ENSP 2000. At least one course must include a laboratory and satisfy the Natural Science General Education Requirement.

¹¹ Select from: ENGL 3040, ENGL 3120, ENGL 3140, ENGL 3150, ENGL 3330

¹² Select from courses in AAH, ANTH, ART, CHIN, DANC, ENGL, FR, GER, HUM, ITAL, JAPN, MUSC, PA, PHIL, REL, RUSS, SPAN or THEA. A course selected to satisfy this requirement may not also be used to satisfy the Fine Arts Requirement or the Communication; Mathematical, Scientific and Technological Literacy; Arts and Humanities; or Social Sciences General Education Requirements.

¹³ MUSC 2100 or any course in AAH, ART or THEA. A course selected to satisfy this requirement may not also be used to satisfy the Departmental Humanities Requirement or the Communication; Mathematical, Scientific and Technological Literacy; Arts and Humanities; or Social Sciences General Education Requirements.

Notes:

1. For graduation, a candidate for the BA degree in Computer Science must have earned a grade of C or better in each CPSC course applied to the non-elective requirements for the degree.
2. A grade of C or better must be earned in all prerequisite courses (including CPSC and MATH courses) before enrolling in the next CPSC course.
3. The General Education Cross-Cultural Awareness General Education Requirement must be satisfied.

Notes: