

MAJOR MAP

BACHELOR OF SCIENCE IN INFORMATION AND COMPUTER SCIENCE – COMPUTER SCIENCE

Purpose Statement: This degree equips students to apply problem-solving and critical-thinking skills and use popular computer technologies in producing technology solutions. It prepares students for a wide range of jobs in industry such as applications programmer, software engineer, web developer, and systems analyst. Also, it prepares students for graduate school in the field of Computer Science. Students with good aptitude in mathematics are encouraged to choose the Computer Science specialty area.

Example Career Info:

- Occupational Outlook Handbook > Computer and Information Technology Occupations: <https://www.bls.gov/ooh/computer-and-information-technology/home.htm>
- O*NET Online > Software Application Developers: <https://www.onetonline.org/link/summary/15-1132.00>
- O*NET Online > Computer and Information Research Scientists: <https://www.onetonline.org/link/summary/15-1111.00>

	Credit Hours
University Liberal Education Requirements	37
LE 100, First-Year Seminar (<i>first-time freshman only; waived for transfer students</i>)	3
EN 105 First-Year Writing Seminar I	3
EN 106 First-Year Writing Seminar II	3
Math requirement: MA 120, MA 135, or higher MA course (will be satisfied in core)	*
Ethics requirement (will be satisfied in core)	*
Humanities requirement	6
Natural Science requirement	3
Science with a lab requirement	4
Citizenship requirement	3
Communications requirement: CA 103, CA 105, or TH 105.	3
Social Science requirement	6
LE 300: Seminar in Integrative and Interdisciplinary Learning	3
University Graduation Requirements – BS	6
36 hours upper division (300 – 400) level course work	*
Writing Across the Curriculum <ul style="list-style-type: none"> • Professional Writing: EN 306a/b/c • A Writing Intensive (WI) course from the major: CSIS WI course (will be satisfied in core) • A WI course outside of the major 	3 * 3
Requirements for the Major	
Core Curriculum	21
CS 152 Introduction to Python Programming	3
CS 208 Discrete Mathematics	3

CS 300 Technology in a Global Society (LE Ethics, CSIS WI course)	3
CS 365A Computer Networking I	3
IS 205 Managing Information Systems	3
IS 361 Data Management Concepts	3
MA 120 Basic Concepts of Statistics (LE Math)	3
Computer Science:	36 – 37
CS 202 Secure Programming	3
CS 252 Object-Oriented Programming	3
CS 319 Computer Architecture	3
CS 335 Introduction to Cybersecurity	3
CS 351 Computer Operating Systems	3
CS 352 Data Structures	3
CS Electives: IS362 or any CS course at 300-400 level that is not already required by this degree	6
<i>Choose 1 of these 2 mathematics sequences:</i>	
MA 160 Precalculus for Majors (5 cr.)	13
MA 221 Calculus and Analytic Geometry for Majors I (5 cr.)	
MA 311 Linear Algebra (3 cr.)	
MA 150 Precalculus Mathematics (3 cr.) (only offered online)	12
MA 210 Calculus and Analytic Geometry I (3 cr.) (only offered online)	
MA 211 Calculus and Analytic Geometry II (3 cr.) (only offered online)	
MA 311 Linear Algebra (3 cr.)	
Additional Courses	
Additional courses in or outside of the major.	19 – 20
TOTALS	120

Recommended Schedule

Plan A: You already have MA125 or equivalent, or have tested out. CS152 and CS208 require a grade of C or higher in MA125. Take Park's math placement test ASAP to know which math course you should start with.

First Year – Fall (15 cr.)	First Year – Spring (14 cr.)
CS152 CS208 LE100 EN105 LE elective 1*	CS252 MA160 (5 cr.) EN106 LE elective 2
Second Year – Fall (17 cr.)	Second Year – Spring (16 cr.)
CS352 CS365A MA221 (5 cr.) LE elective 3 LE elective 4	CS335 IS205 MA120 MA311 LE science with a lab (4 cr.)
Third Year – Fall (15 cr.)	Third Year – Spring (15 cr.)
CS202 CS319 IS361 EN306 LE elective 5	CS300 CS351 LE elective 6 LE elective 7 Additional course 1†
Fourth Year – Fall (15 cr.)	Fourth Year – Spring (13 cr.)
LE300	CS elective 2

CS elective 1 Additional course 2 Additional course 3 Additional course 4	A WI course outside of the major Additional course 5 Additional course 6 Additional course 7
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Plan B: You need to take MA125. CS152 and CS208 require a grade of C or higher in MA125.

First Year – Fall (15 cr.)	First Year – Spring (15 cr.)
MA125 (additional course 1†) LE100 EN105 LE elective 1* LE elective 2	CS152 CS208 EN106 LE elective 3 LE elective 4
Second Year – Fall (15 cr.)	Second Year – Spring (14 cr.)
IS361 CS365A MA120 LE elective 5 LE elective 6	CS252 CS335 IS205 MA160 (5 cr.)
Third Year – Fall (17 cr.)	Third Year – Spring (16 cr.)
CS352 EN306 MA221 (5 cr.) CS elective 1 LE elective 7	CS300 MA311 LE science with a lab (4 cr.) CS elective 2 Additional course 2
Fourth Year – Fall (15 cr.)	Fourth Year – Spring (13 cr.)
CS202 CS319 LE300 Additional course 3 Additional course 4	CS351 A WI course outside of the major Additional course 5 Additional course 6 Additional course 7

* LE (Liberal Education) Elective: Aside from MA120 (Math), CS300 (Ethics), and Science with a lab (4 cr.), you will need 7 more LE courses: 2 Humanities, 1 Natural Science, 1 Citizenship, 1 Communication, and 2 Social Science. For a list of qualifying courses, see Liberal Education Requirements section in the degree description of this program in the catalog: <https://catalog.park.edu/>.

† Additional Course: any additional courses in or outside of the major. You need 19 - 20 credit hours (6 - 7 additional courses) to reach 120 credit hours.



B.S. in Information and Computer Science

Specialty Area - Computer Science

Core Courses
 Specialty Area Courses
 Other Courses

