

This degree requires a minimum of 120 credit hours to graduate (at least 36 credit hours must be upper-division, 300 or 400-level) and a cumulative GPA of 2.0. A minimum of 30 credit hours must be earned at Park.

#### DEPARTMENT OF COMPUTER SCIENCE & INFORMATION SYSTEMS Chair, Bin "Crystal" Peng, Ph.D. (<u>crystal.peng@park.edu</u>)

Catalog AY19-20

## MAJOR MAP

### BACHELOR OF SCIENCE IN INFORMATION SYSTEMS

Purpose Statement: This degree prepares students for careers in programming, product analysis, and management of computer information systems; the degree allows students the freedom and flexibility to select a minor (such as business, GIS, graphic design, leadership, or statistics) to complement their studies in information systems.

Example Career Info:

- Occupational Outlook Handbook > Computer Systems Analysts: <u>https://www.bls.gov/ooh/computer-and-information-technology/computer-systems-analysts.htm</u>
- O\*NET Online > Computer Systems Analysts: <u>https://www.onetonline.org/link/summary/15-1121.00</u>
- O\*NET Online > Geographic Information Systems Technicians: <u>https://www.onetonline.org/link/summary/15-1199.05</u>
- O\*NET Online > IT Project Manager: <u>https://www.onetonline.org/link/summary/15-1199.09</u>

	Credit
	Hours
University Graduation Requirements – BS	
LE 100 First-Year Seminar (first-time freshman only; waived for transfer students)	3
EN 306 Professional Writing in the Disciplines, or departmental equivalent	3
University Liberal Education Requirements	
EN 105 First-Year Writing Seminar I	3
EN 106 First-Year Writing Seminar II	3
CS 140 Introduction to Computers, or higher CS course, or departmental equivalent	3
MA 120 Basic Concepts of Statistics, MA 135 College Algebra, or higher MA course (will be satisfied in core)	*
Communication requirement (CA 103 Oral Communication, CA 105 Introduction to Human Communication, or TH 105 Oral	3
Communication)	
Citizenship requirement	3
Ethics requirement (will be satisfied in core)	*
Science course that has a lab	4
LE Natural and Physical Science Elective (except computer science)	3
LE Social Science Elective	6
LE Arts & Humanities Elective	6
LE 300 Seminar in Integrative and Interdisciplinary Learning	3
Requirements for the Major	36
CS 151 Introduction to Programming or CS 152 Introduction to Python Programming	3
CS 208 Discrete Mathematics	3
CS 240 Web Programming I	3
CS 300 Technology in a Global Society (departmental equivalent LE Ethics course)	3

This guide is not a substitute for academic advisement.

CS 365 Computer Networking	3
IS 205 Managing Information Systems	3
IS 310 Business Applications (only offered online)	3
IS 315 Computer Systems Analysis and Design I	3
IS 316 Computer Systems Analysis and Design II (only offered online)	3
IS 361 Data Management Concepts	3
IS 370 Information Security	3
MA 120 Basic Concepts of Statistics	3
Required Minor	
<b>Required Minor</b> – Students must select a complementary minor of their choice (students may select any minor, except the Information and Computer Science minor or the Computer Information Management minor). Suggested minors include: Management, Health Care, Geographic Information Systems (GIS), Graphic Design, Leadership, Organizational Communication, Statistics	18-21
Additional Courses	
Additional courses in or outside of the major. You need at least 9 cr. 300/400-level courses from here and the Required	20-23
Minor set combined.	
TOTALS	120

#### **Recommended Schedule**

**Plan A:** you already have MA125 or equivalent, or have tested out. CS151/152 and CS208 require MA125>=C. Take Park's math placement test ASAP to know which math course you should start with.

First Year – Fall (15 cr.)	First Year – Spring (15 cr.)
CS140	CS151 or CS152
IS205	CS208
EN105	EN106
LE100	LE elective 2
LE elective 1*	LE elective 3
Second Year – Fall (15 cr.)	Second Year – Spring (16 cr.)
CS240	IS316
CS365	MA120
IS315	Minor course 1
LE elective 4	Minor course 2
LE elective 5	LE science with a lab (4 cr.)
Third Year – Fall (15 cr.)	Third Year – Spring (15 cr.)
Third Year – Fall (15 cr.) IS361	Third Year – Spring (15 cr.) CS300
<b>Third Year – Fall (15 cr.)</b> IS361 IS370	Third Year – Spring (15 cr.) CS300 IS310
Third Year – Fall (15 cr.)     IS361   IS370     EN306   IS370	Third Year – Spring (15 cr.) CS300 IS310 Minor course 3
Third Year – Fall (15 cr.) IS361 IS370 EN306 LE elective 6	Third Year – Spring (15 cr.) CS300 IS310 Minor course 3 Minor course 4
Third Year – Fall (15 cr.) IS361 IS370 EN306 LE elective 6 LE elective 7	Third Year – Spring (15 cr.) CS300 IS310 Minor course 3 Minor course 4 Additional course 1 <sup>+</sup>
Third Year – Fall (15 cr.)IS361IS370EN306LE elective 6LE elective 7Fourth Year – Fall (15 cr.)	Third Year – Spring (15 cr.)CS300IS310Minor course 3Minor course 4Additional course 1†Fourth Year – Spring (14 cr.)
Third Year – Fall (15 cr.)     IS361   IS370     EN306   LE elective 6     LE elective 7   Fourth Year – Fall (15 cr.)     LE300   LE300	Third Year – Spring (15 cr.)   CS300 IS310   IS310 Minor course 3   Minor course 4 Additional course 1†   Fourth Year – Spring (14 cr.)   Minor course 7
Third Year – Fall (15 cr.)IS361IS370EN306LE elective 6LE elective 7Fourth Year – Fall (15 cr.)LE300Minor course 5	Third Year – Spring (15 cr.)   CS300 IS310   Minor course 3 Minor course 4   Additional course 1† Fourth Year – Spring (14 cr.)   Minor course 7 Additional course 4
Third Year – Fall (15 cr.)IS361IS370EN306LE elective 6LE elective 7Fourth Year – Fall (15 cr.)LE300Minor course 5Minor course 6	Third Year – Spring (15 cr.)   CS300 IS310   Minor course 3 Minor course 4   Additional course 1† Fourth Year – Spring (14 cr.)   Minor course 7 Additional course 4   Additional course 5 Additional course 5
Third Year – Fall (15 cr.)IS361IS370EN306LE elective 6LE elective 7Fourth Year – Fall (15 cr.)LE300Minor course 5Minor course 6Additional course 2	Third Year – Spring (15 cr.)   CS300 IS310   Minor course 3 Minor course 4   Additional course 1† Fourth Year – Spring (14 cr.)   Minor course 7 Additional course 4   Additional course 5 Additional course 6

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Plan B: you need to take MA125. CS151/152 and CS208 require MA125>=C.

First Year – Fall (15 cr.)	First Year – Spring (15 cr.)
CS140	CS151 or CS152
MA125 (additional course 1 <sup>+</sup> )	IS205
EN105	EN106
LE100	LE elective 2
LE elective 1*	LE elective 3
Second Year – Fall (15 cr.)	Second Year – Spring (16 cr.)
CS240	CS365
CS208	IS316
IS315	MA120
LE elective 4	Minor course 1
LE elective 5	LE science with a lab (4 cr.)
Third Year – Fall (15 cr.)	Third Year – Spring (15 cr.)
IS361	CS300
IS370	IS310
EN306	Minor course 2
LE elective 6	Minor course 3
LE elective 6 LE elective 7	Minor course 3 Additional course 2
LE elective 6 LE elective 7 Fourth Year – Fall (15 cr.)	Minor course 3 Additional course 2 Fourth Year – Spring (14 cr.)
LE elective 6 LE elective 7 Fourth Year – Fall (15 cr.) LE300	Minor course 2 Additional course 2 Fourth Year – Spring (14 cr.) Minor course 6
LE elective 6 LE elective 7 Fourth Year – Fall (15 cr.) LE300 Minor course 4	Minor course 3 Additional course 2 Fourth Year – Spring (14 cr.) Minor course 6 Minor course 7
LE elective 6 LE elective 7 Fourth Year – Fall (15 cr.) LE300 Minor course 4 Minor course 5	Minor course 2 Additional course 2 Fourth Year – Spring (14 cr.) Minor course 6 Minor course 7 Additional course 5
LE elective 6 LE elective 7 Fourth Year – Fall (15 cr.) LE300 Minor course 4 Minor course 5 Additional course 3	Minor course 2 Minor course 3 Additional course 2 Fourth Year – Spring (14 cr.) Minor course 6 Minor course 7 Additional course 5 Additional course 6

\* LE (Liberal Education) Elective: aside from EN105, EN106, CS300 (LE Ethics), Science course with a lab (4 hrs), you will need 7 more LE courses: 1 LE Communication, 1 LE Natural Science, 1 LE Citizenship, 2 LE Social/ADM Science (Social Science), and 2 LE Humanities. For a list of qualifying courses, see Liberal Education Requirements section in the degree description of this program in the catalog: <a href="https://catalog.park.edu/">https://catalog.park.edu/</a>.

<sup>+</sup> Additional Course: any additional courses in or outside of the major. You need 20 hrs (about 7 additional courses) to reach 120 hrs if your minor requires 21 hrs (as shown in those two plans); you need 23 hrs (8 additional courses) if your minor requires 18 hrs only.

Prerequisite Tree



# **B.S. in Information Systems**



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