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. (crystal.peng@park.edu)   Catalog AY20-21

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

	Credit Hours
University Liberal Education Requirements	**37**
LE 100, First-Year Seminar *(first-time freshman only; waived for transfer students)*	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	**3**
36 hours upper division (300 – 400) level course work	*
EN 306, Professional Writing in the Disciplines, or departmental equivalent	3
Requirements for the Major	**39**
CS 140 Introduction to Computers	3
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 (LE Ethics)	3

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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 (LE Math)	3
Required Minor	
Required Minor – Students must select a complementary minor of their choice. Suggested minors include: Health Care, Geographic Information Systems (GIS), Graphic Design, Leadership, Management, Organizational Communication, and Statistics. Students may select any minor, except Information and Computer Science minor, and Computer Information Management minor. When a major is used to satisfy the required minor requirement, any major may work except Business Admin/Computer Information Management, Information and Computer Science (any concentration), and Management/Computer Information Systems. Those minors or majors are excluded due to the amount of course overlap.	**18-21**
Additional Courses	
Additional courses in or outside of the major. You need at least 9 credit hours of 300-400 level courses from the Additional Courses set and the Required Minor set.	**20-23**
TOTALS	**120**

<mark>Recommended Schedule</mark>

Plan A: You already have MA125 or equivalent, or have tested out. CS151/152 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 (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.)**
IS361	CS300
IS370	IS310
EN306	Minor course 3
LE elective 6	Minor course 4
LE elective 7	Additional course 1†
Fourth Year – Fall (15 cr.)	**Fourth Year – Spring (14 cr.)**
LE300	Minor course 7
Minor course 5	Additional course 4
Minor course 6	Additional course 5

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| Additional course 2 | Additional course 6 |
| Additional course 3 | Additional course 7 |

Plan B: You need to take MA125. CS151/152 and CS208 require a grade of C or higher in MA125.

First Year – Fall (15 cr.)	First Year – Spring (15 cr.)
CS140	CS151 or CS152
MA125 (additional course 1†)	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 7	Additional course 2
Fourth Year – Fall (15 cr.)	**Fourth Year – Spring (14 cr.)**
LE300	Minor course 6
Minor course 4	Minor course 7
Minor course 5	Additional course 5
Additional course 3	Additional course 6
Additional course 4	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/ .
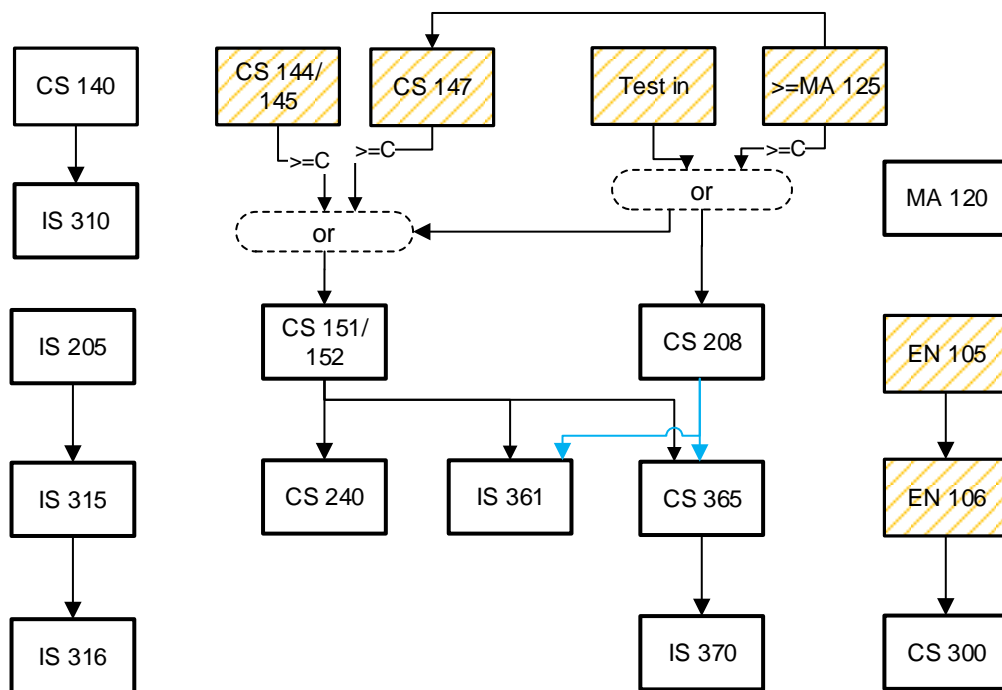
† Additional Course: any additional courses in or outside of the major. You need 20 cr. (about 7 additional courses) to reach 120 cr. if your minor requires 21 cr. (as shown in those two plans); you need 23 cr. (about 8 additional courses) if your minor requires 18 cr. only.

B.S. in Information Systems

| Core Courses | Specialty Area Courses | Other Courses |

CS 140 → IS 310

CS 144/145 → (>=C) — CS 147 → (>=C)

Test in, >=MA 125 (>=C) → or

CS 144/145, CS 147 → or → CS 151/152

Test in / >=MA 125 → or → CS 208

MA 120

IS 205 → IS 315 → IS 316

CS 151/152 → CS 240

CS 208 → IS 361, CS 365

EN 105 → EN 106 → CS 300

CS 365 → IS 370

Select one complementary minor except for Information and Computer Science minor and Computer Information Management minor.
When a major is used to satisfy this required minor requirement, any major may work except Information and Computer Science major (any concentration), Business Admin/CIM, and Management/CIS.

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