

## MAJOR MAP

### BACHELOR OF SCIENCE IN INFORMATION AND COMPUTER SCIENCE – INFORMATION TECHNOLOGY

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 the field of information technology. In addition to learning about traditional computer-related areas, students choose two 3-course clusters in areas of interest that partner with the information technology field. For example, criminal justice and geographic information systems (GIS) are two such clusters.

	Credit Hours
<b>University Graduation Requirements – BS</b>	
LE 100 First-Year Seminar ( <i>first-time freshman only; waived for transfer students</i> )	3
EN 306 Professional Writing in the Disciplines, or departmental equivalent	3
<b>University Liberal Education Requirements</b>	
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 (will be satisfied in core)	*
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 Communication)	3
Citizenship requirement	3
Ethics requirement (will be satisfied in core)	*
Science course that has a lab	4
LE Natural and Physical Science Elective ( <i>except computer science</i> )	3
LE Social Science Elective	6
LE Arts & Humanities Elective	6
LE 300 Seminar in Integrative and Interdisciplinary Learning	3
<b>Requirements for the Major</b>	
<b>Core Curriculum</b>	
CS 152 Introduction to Python Programming	3
CS 208 Discrete Mathematics	3
CS 300 Technology in a Global Society (departmental equivalent LE Ethics course)	3
CS 365 Computer Networking	3
IS 205 Managing Information Systems	3
IS 361 Data Management Concepts	3
MA 120 Basic Concepts of Statistics	3
<b>Information Technology:</b>	
CS 319 Computer Architecture	3
CS 335 Introduction to Cybersecurity	3
CS 369 Operating System Administration	3
<b>Choose 2 of these 7 clusters:</b>	
EN 204 Writing for Online Environments	9

EN 306a Scientific and Technical Writing EN 306b Business Communications	
IS 310 Business Applications (only offered online) IS 315 Computer Systems Analysis and Design I IS 316 Computer Systems Analysis and Design II (only offered online)	9
CS 366 Computer Networking Laboratory (1 cr.) CS 371 Internetworking IS 370 Information Security	7
IS 141 Applied Computer Technology for Business MA 171 Finite Mathematics MG 315 Advanced Business Statistics	9
CS 240 Web Programming I CS 314 User Interface Design CS 330 Principles of Mobile Development	9
IS 362 Applied Database Management GGP 350 GIS I GGP 355 GIS II	9
MG 371 Management and Organizational Behavior CJ 233 Intro to Security CJ 333 Security Administration	9
<b>Additional Courses</b>	
Additional courses in or outside of the major. May need 3 cr. at 300/400-level here if you select only 9 cr. 300/400-level courses from the choose-2-cluster above. You need at least 12 cr. 300/400-level courses from those two sets combined.	<b>32 - 34</b>
<b>TOTALS</b>	<b>120</b>

### Recommended Schedule

**Plan A:** you already have MA125 or equivalent, or have tested out. CS152 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.)
CS152 CS208 LE100 EN105 LE elective 1*	IS205 MA120 EN106 LE elective 2 LE elective 3
Second Year – Fall (15 cr.)	Second Year – Spring (16 cr.)
CS365 CS319 LE elective 4 LE elective 5 LE elective 6	CS335 Cluster course 1 Cluster course 2 LE elective 7 LE science with a lab (4 cr.)
Third Year – Fall (15 cr.)	Third Year – Spring (15 cr.)
IS361 EN306 Cluster course 3 Cluster course 4 Additional course 1†	CS300 Cluster course 5 Cluster course 6 Additional course 2 Additional course 3
Fourth Year – Fall (15 cr.)	Fourth Year – Spring (14 cr.)
CS369 LE300 Additional course 4 Additional course 5 Additional course 6	Additional course 7 Additional course 8 Additional course 9 Additional course 10 Additional course 11

This guide is not a substitute for academic advisement.

**Plan B:** you need to take MA125. CS152 and CS208 require MA125>=C.

<b>First Year – Fall (15 cr.)</b>	<b>First Year – Spring (15 cr.)</b>
MA125 (additional course 1†) LE100 EN105 LE elective 1* LE elective 2	CS152 CS208 EN106 LE elective 3 LE elective 4
<b>Second Year – Fall (15 cr.)</b>	<b>Second Year – Spring (16 cr.)</b>
CS365 CS319 IS205 LE elective 5 LE elective 6	CS335 MA120 Cluster course 1 LE elective 7 LE science with a lab (4 cr.)
<b>Third Year – Fall (15 cr.)</b>	<b>Third Year – Spring (15 cr.)</b>
IS361 EN306 Cluster course 2 Cluster course 3 Additional course 2	CS300 Cluster course 4 Cluster course 5 Additional course 3 Additional course 4
<b>Fourth Year – Fall (15 cr.)</b>	<b>Fourth Year – Spring (14 cr.)</b>
CS369 LE300 Cluster course 6 Additional course 5 Additional course 6	Additional course 7 Additional course 8 Additional course 9 Additional course 10 Additional course 11

\* 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 go to MyPark>Resources tab>CLAS Academic Advising Resources located in "Your Personalized Resources">Handouts>Liberal Education Requirements.doc

† Additional Course: any additional courses in or outside of the major. You need 32-34 hrs (11-12 additional courses) to reach 120 hrs.



# B.S. in Information and Computer Science

## Specialty Area – Information Technology

