PARK UNIVERSITY
COLLEGE OF LIBERAL ARTS AND SCIENCES

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 AY19-20

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 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 (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 *(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	
Core Curriculum	**21**
CS 151 Introduction to 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
Computer Science:	**36 - 37**
CS 219 Programming Fundamentals	3
CS 225 Programming Concepts	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 (300-level or above CS courses)	6
Choose 1 of these 2 mathematics sequences:	
MA 160 Precalculus. for Majors (5 cr.) MA 221 Calculus and Analytic Geometry for Majors I (5 cr.) MA 311 Linear Algebra (3 cr.)	13
MA 150 Precalculus Mathematics (3 cr.) (only offered online) 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.)	12
Additional Courses	
Additional courses in or outside of the major.	**22 – 23**
TOTALS	**120**

Recommended Schedule

Plan A: you already have MA125 or equivalent, or have tested out. CS151 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 (14 cr.)
CS151 CS208 LE100 EN105 LE elective 1*	CS219 MA160 (5 cr.) EN106 LE elective 2
Second Year – Fall (17 cr.)	**Second Year – Spring (16 cr.)**
CS365 MA120 MA221 (5 cr.) LE elective 3 LE elective 4	CS225 CS335 IS205 MA311 LE science with a lab (4 cr.)
Third Year – Fall (15 cr.)	**Third Year – Spring (15 cr.)**
CS319 IS361 EN306 LE elective 5 LE elective 6	CS300 CS351 LE elective 7 Additional course 1† Additional course 2
Fourth Year – Fall (15 cr.)	**Fourth Year – Spring (13 cr.)**
CS352 LE300	300-level or above CS elective 2 Additional course 5

300-level or above CS elective 1 Additional course 3 Additional course 4	Additional course 6 Additional course 7 Additional course 8

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

First Year – Fall (15 cr.)	First Year – Spring (15 cr.)
MA125 (additional course 1†) LE100 EN105 LE elective 1* LE elective 2	CS151 CS208 EN106 LE elective 3 LE elective 4
Second Year – Fall (15 cr.)	**Second Year – Spring (14 cr.)**
CS219 CS365 MA120 LE elective 5 LE elective 6	CS225 CS335 IS205 MA160 (5 cr.)
Third Year – Fall (17 cr.)	**Third Year – Spring (16 cr.)**
CS319 IS361 EN306 MA221 (5 cr.) LE elective 7	CS300 CS351 MA311 LE science with a lab (4 cr.) Additional course 2
Fourth Year – Fall (15 cr.)	**Fourth Year – Spring (13 cr.)**
CS352 LE300 300-level or above CS elective 1 Additional course 3 Additional course 4	300-level or above CS elective 2 Additional course 5 Additional course 6 Additional course 7 Additional course 8

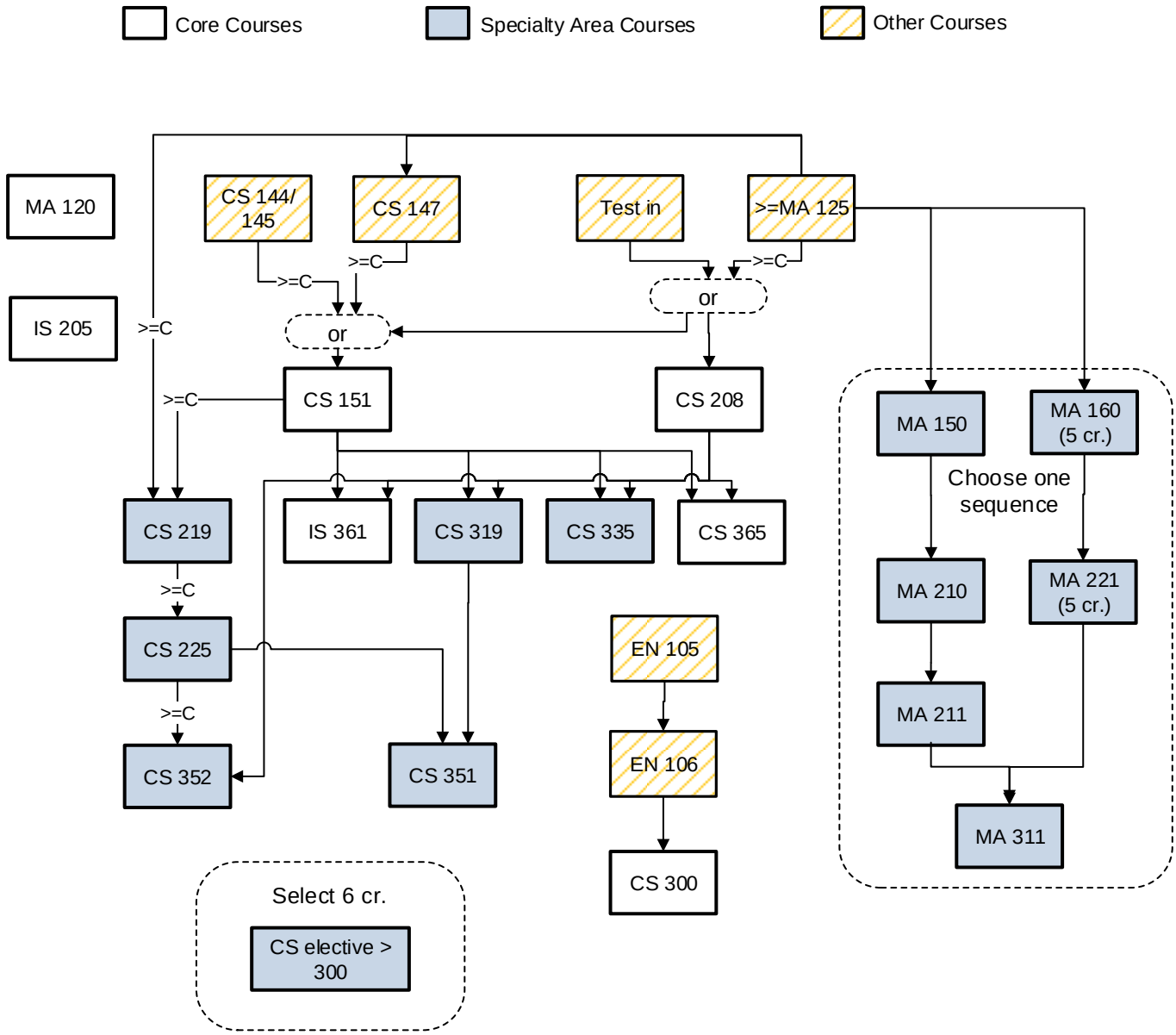
* LE (Liberal Education) Elective: aside from EN105, EN106, CS300 (LE Ethics), Science course with a lab (4 hrs), you will need 7 more LE courses: 1 LE Communication, 1 LE Natural Science, 1 LE Citizenship, 2 LE Social/ADM Science (Social Science), and 2 LE Humanities. For a list of qualifying courses,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

† Additional Course: any additional courses in or outside of the major. You need 22~23 hrs (7-8 additional courses) to reach 120 hrs.

Prerequisite Tree

B.S. in Information and Computer Science

Specialty Area - Computer Science



This guide is not a substitute for academic advisement.