

BS: COMPUTER SCIENCE - CONCENTRATION: GENERAL CATALOG YEAR 2023

(THIS GUIDE SHOULD ALSO BE USED IF STUDENT'S INTENDED CONCENTRATION IS THE 4+1 ACCELERATED MS PROGRAM IN CYBERSECURITY.)

FIRST YEAR COURSE SELECTION

Course Selection - 2nd Semester 1st Year:

Majors SHOULD take the following courses (if not already taken):

- T1WC: English 112—Writing Arguments (or ENG 120 if they are currently in ENG 119)
- Math in sequence toward T1QR: MAT 150 (will need more math as well--see below)
- CSC 152 - Programming Fundamentals (in Python)
 - If the student took CSC 152 in their first semester AND are currently in MAT 112 or higher, they should take CSC 212: Data Structures in their second semester.
 - Student must obtain C or better in CSC 152 to take CSC 212. (If obtain lower than a C, they will need to retake CSC 152.)

Majors COULD take the following course, if it fits their schedule:

- If student has not yet completed T1TF, CSC 104 or CSC 200 is recommended.

Remaining courses: Students should take LEP Tier 1 and Tier 2 courses.

- If student completed CSC 152, they are encouraged to take DSC 205:Data Visualization (T2CD)

Important Advising Information:

LEP T1/T2 Restricted Courses:

- T1QR: Quantitative Reasoning: MAT 150 Calculus
- T2NWI: Options of CHE 120, ESC 200, PHY 200, PHY 230
- T2NWI: Options of BIO 100, 101, 103, 120, 200, CHE 121 or ESC 201

Recommended LEP course:

- T1TF: CSC 104 or CSC 200 (recommended). It is highly recommended students take one of these courses in this category, but it is not required.
- T2CD: DSC 205 (recommended). It is highly recommended students take this course in this category, but it is not required.

T1QR Math Requirement Information:

- Sequencing to get to the MAT 150 requirement (begin appropriate to placement score):
 - o MAT 100/100P, MAT 111/112, MAT 122, MAT 150

Important Note: students need 'C-' or better in these math courses to move on to next course.

- To stay on track to a timely graduation, students should meet the T1QR math requirement before starting their second year. If needed, students should be encouraged to take summer math courses.
- See Math cognates below.

Cognates:

There are a number of cognate requirements (see catalog), including math and science courses. Students should read the catalog. Students will need to continue on in Math past their T1QR requirement. It is recommended that students take a math course every semester until all their math cognate requirements are completed – MAT 151, 178, and 221.

NOTE: Math Minor can be achieved by taking MAT 252, MAT 322, or MAT 372 instead of PHY 355 in Science Cognate.

Additional Notes:

- Students in the **BS Computer Science, General** concentration will end up with a Minor in Math upon completion of the program, if they take MAT 252, 322 or 372 in the Science Cognate.
- If a student is struggling with Math courses or is concerned with the amount of math required for the degree, the Information Systems concentration within the B.S. Computer Science degree requires less math and science. The required computer science courses in both concentrations (*General and Information Systems*) are very similar. The programs primarily differ in the cognate requirements.
- The Computer Science Department also offers a 4+1 Accelerated Pathway for a Master's Degree in Cybersecurity that students can apply to at the end of their sophomore year (at the earliest).

