Bachelor of Science in Computer Science
Computer Science Track (effective 01/01/2020)

MAC 2311* Calculus I (4 credits)
MAC 2312 Calculus II (4 credits)
PHY 2048/2048L Physics w/Calculus I (5 credits)
MAD 2104* Discrete Math
PHY 2049/2049L Physics w/Calculus II (5 credits)
CDA 3102 Computer Architecture
COP 4610 Operating Systems
COP 2210* Programming I (4 credits)

Natural* Science Elective
See PDA or Advisor

Natural^ Science Elective
See PDA or Advisor

COT 3100* Discrete Structures

COP 3377 Programming II
COP 3530 Data Structures
COP 4338 Systems Programming

CS Electives (9 courses): Must take at least one course from each elective group (most electives are 3 credits).
Remaining six elective courses must be taken from these elective groups.

Foundations
- CAP 4506-Intro to Game Theory (Prereq: MAC2312)
- COP 4534-Algorithm Techniques (Prereq: COP3530)
- COP 4555-Programming Languages (Prereq: COP3530)
- COT 3541-Logic for CS (Prereq: COP337 & COT3100)
- COT 4521-Intro to Computational Geometry (Prereq: COP3530)
- MAD 3305-Graph Theory (Prereq: COP2210, MAD2104)
- MAD 3401-Numerical Analysis (Prereq: COP2210, MAC2312)
- MAD 3512-Theory of Algorithms (Prereq: COP3530)
- MAD 4203-Combinatorics (Prereq: MAD2014, MAC2312)
- MHF 4302-Math Logic (Prereq: MAD3512)

Systems
- CAP 4453-Robot Vision (Prereq: COP3530, MAC2312)
- CDA 4625-Intro to Mobile Robotics (Prereq: COP3530, STA3033)
- CEN 4010-Computer Graphics (Prereq: COP337, MAC2312)
- CEN 4021-Software Engineering I
- CEN 4072-Software Engineering II (Prereq: COP3530, Co-req: COP4710)
- CIS 4911 Senior Project

Applications
- CAP 4104-Human Cmptr Interaction (Prereq: COP337)
- CAP 4612-Introduction to Machine Learning (Prereq: COP3530, STA3033)
- CAP 4630-Artificial Intelligence (Prereq: COP3530)
- CAP 4641-Nat Lang Processing (Prereq: COP3530)
- CAP 4710-Computer Graphics (Prereq: COP337, MAC2312)
- CAP 4770-Intro to Data Mining (Prereq: COP3530, Co-req: COP4710)
- CEN 4021-Software Engineering II (Prereq: COP3530)
- CEN 4072-Software Testing (Prereq: COP3530)
- COP 4226-Adv Windows Program (Prereq: COP3530)

* Prerequisites:
- ENC3249/ENC3213: UCC English requirements
- MAC2311: MAC1147
- COT3100 & MAD2104: MAC1105
- COP2210: MAC1140 or higher level math course

^ Natural Science electives: lab not needed unless required by offering dept.

A direction line indicates a prerequisite. The course above must be completed before the course below can be taken.

A diamond indicates a co-requisite. The course closer to the diamond may be taken at the same time as the co-requisite. The co-requisite is a prerequisite for any course that requires the course closer to the diamond.