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

MAC 2311* Calculus I
(4 credits)

PHY 2048/ 2048L
Physics
w/Calc II
(5 credits)

MAD 2104* Discrete Math

COT 3100** Discrete Structures

CDA 3102 Computer Architecture

COP 4610 Operating Systems

COP 2210* Programming I
(4 credits)

COP 3337 Programming II

COP 3530 Data Structures

COP 4338 Systems Programming

CGS 1920 Introduction To Computing
(1 credit)

CGS 3095 Technology in the Global Arena (GL)

ENC 3249* or ENC 3213*
Professional & Technical Writing (GRW)

MAC 2312 Calculus II
(4 credits)

STA 3033 Probability & Statistics

All courses are 3 credits, except as noted.

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: COP3337 & COT3100)
- COT 4521-Intro to Computational Geometry
(Prereq: COP3530)
- MAC 3305-Graph Theory
(Prereq: COP2210, MAD2104)
- MAD 3401-Numerical Analysis
(Prereq: COP2210, MAC2312)
- MAD 3512-Theory of Algorithms
(Prereq: COP3530)
- MAD 4203-Combinatorics
(Prereq: MAD2104, 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 4083-Cloud Computing
(Prereq: CNT4713 and COP3102 or COP3101)
- CNT 4713-Net Centric Computing
(Prereq: COP4338)
- COP 4520-Intro to Parallel Computing
(Prereq: COP4338 and COP3102 or COP4101)
- COP 4604-Advanced UNIX Programming
(Cores: COP4610)
- COP 4710-Intro to Database Systems
(Cores: COP3330)
- COP 4722-Survey of Database Systems
(Prereq: COP4710)
- CTS 4408-Database Administration
(Prereq: COP4710)

Applications
- CAP 4104-Human Cmpt Interface
(Prereq: COP3337)
- CAP 4510-Computers in Business
(Prereq: COP3337, MAC2312)
- CAP 4641-Nat Lang Processing
(Prereq: COP3530)
- CAP 4710-Computer Graphics
(Prereq: COP3337, MAC2312)
- CAP 4770-Intro to Data Mining
(Prereq: COP3530, Co-req: COP4710)
- CEN 4021-Software Engineering II
(Prereq: CEN4001)
- 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.