



All courses are 3 credits, except as noted.

**CS Electives (7 courses):** Must take at least one course from Foundations group and one course from Systems group. Remaining five elective courses must be taken from these elective groups (most electives are 3 credits).

- 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)
  - 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: 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 (CDA3102 or CDA4101))
  - CNT 4713-Net Centric Computing (Prereq: COP4338)
  - COP 4520-Intro to Parallel Computing (Prereq: COP4338 and (CDA3102 or CDA4101))
  - COP 4604-Advanced UNIX Programming (Prereq: COP4610)
  - COP 4710-Intro to Database Systems (Prereq: COP3530)
  - COP 4722-Survey of Database Systems (Prereq: COP4710)

- Applications**
- CAP 4104-Human Cmptr Interaction (Prereq: COP3337)
  - CAP 4612-Intro duction to Machine Learning (Prereq: COP3530, STA3033)
  - CAP 4630-Artificial Intelligence (Prereq: COP3530)
  - CAP 4641-Nat Lang Processing (Prereq: COP3530)
  - CAP 4710-Computer Graphics (Prereq: COP3337, MAC2312)
  - CAP 4770-Intro to Data Mining (Prereq: COP3337, Co-req: COP4710)
  - 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 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.