



**CS Electives (choose three)**

All courses are 3 credits, except as noted.

<b>CAP 4104</b> <i>Human Cmptr Interaction</i> Pre: COP3337	<b>CAP 4453</b> <i>Robot Vision</i> Pre: COP3530 & MAC2312	<b>CAP 4506</b> <i>Intro to Game Theory</i> Pre: MAC2312	<b>CAP 4630</b> <i>Artificial Intelligence</i> Pre: COP3530	<b>CAP 4641</b> <i>Natural Lang Processing</i> Pre: COP3530	<b>CAP 4710</b> <i>Computer Graphics</i> Pre: COP3337, MAC2312
<b>CAP 4770</b> <i>Introduction to Data Mining</i> Pre: COP3530 Co: COP 4710	<b>CDA 4625</b> <i>Intro to Mobile Robotics</i> Pre: COP3530 & STA3033	<b>CEN 4021</b> <i>Software Engineering II</i> Pre: CEN4010	<b>CEN 4072</b> <i>Software Testing</i> Pre: COP3530	<b>CEN 4083</b> <i>Cloud Computing</i> Pre: CNT4713, CDA4101	<b>COP 4226</b> <i>Advanced Windows Programming</i> Pre: COP3530
<b>COP 4520</b> <i>Intro to Parallel Computing</i> Pre: COP3530, CDA4101	<b>COP 4534</b> <i>Algorithm Techniques</i> Pre: COP3530	<b>COP 4604</b> <i>Advanced UNIX Programming</i> Pre: COP 4610	<b>COP 4722</b> <i>Survey of Database Systems</i> Pre: COP4710	<b>COT 4521</b> <i>Intro to Computational Geometry</i> Pre: COP3530	<b>MAD 3401</b> <i>Numerical Analysis</i> Pre: COP2210, MAC2312
<b>MAD 3305</b> <i>Graph Theory</i> Pre: COP2210, MAD2104	<b>MAD 4203</b> <i>Combinatorics</i> Pre: MAD2104, MAC2312	<b>MHF 4302</b> <i>Math Logic</i> Pre: MAD 3512			

↓ 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.

⊙ A junction is where multiple prerequisites are joined.

\* Prerequisites:  
 - ENC 3249: UCC English requirements  
 - MAC 2311: (MAC1140 + MAC1114) or MAC1147  
 - COT3100 & MAD2104: Math prerequisite is MAC1105  
 ^ Natural Science electives: lab not needed unless required by offering dept.