

CORE REQUIREMENTS																																														
<p>Basic Math and Science (6 courses, 7-7.5 credits)</p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 10%; border-bottom: 1px solid black;">Sem</td> <td style="width: 15%; border-bottom: 1px solid black;">Course</td> <td style="width: 45%;"></td> <td style="width: 30%;"></td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">MATH 131</td> <td style="border-bottom: 1px solid black;">Calculus I (1.25 credits)</td> <td rowspan="5" style="vertical-align: top; padding-left: 10px;"> and two electives from Mathematics, Physics, Chemistry, Biology, Neuroscience, or Computer Science (approved in advance by dept. chair) </td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">MATH 132</td> <td style="border-bottom: 1px solid black;">Calculus II (1.25 credits)</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">PHYS 141L</td> <td style="border-bottom: 1px solid black;">Mechanics</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">PHYS 231L</td> <td style="border-bottom: 1px solid black;">Elec., Mag., & Waves</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">_____</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">_____</td> </tr> </table>		Sem	Course			_____	MATH 131	Calculus I (1.25 credits)	and two electives from Mathematics, Physics, Chemistry, Biology, Neuroscience, or Computer Science (approved in advance by dept. chair)	_____	MATH 132	Calculus II (1.25 credits)	_____	PHYS 141L	Mechanics	_____	PHYS 231L	Elec., Mag., & Waves	_____	_____	_____	_____	_____	_____	_____	<p>Engineering (4 courses, 3.75 credits)</p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 10%; border-bottom: 1px solid black;">Sem</td> <td style="width: 15%; border-bottom: 1px solid black;">Course</td> <td style="width: 75%;"></td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">ENGR 200</td> <td style="border-bottom: 1px solid black;">Meas., Instr., & Analysis</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">ENGR 212L</td> <td style="border-bottom: 1px solid black;">Linear Circuit Theory OR</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">ENGR 221L</td> <td style="border-bottom: 1px solid black;">Digital Circuits & Systems</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">ENGR 225</td> <td style="border-bottom: 1px solid black;">Mechanics I</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">ENGR 232</td> <td style="border-bottom: 1px solid black;">Engineering Materials</td> </tr> </table>		Sem	Course		_____	ENGR 200	Meas., Instr., & Analysis	_____	ENGR 212L	Linear Circuit Theory OR	_____	ENGR 221L	Digital Circuits & Systems	_____	ENGR 225	Mechanics I	_____	ENGR 232	Engineering Materials	<p>Additional Degree Requirements</p> <ol style="list-style-type: none"> 1. Demonstration of computer programming proficiency by course (C- or better) or exam. • 2. Completion of at least eight course credits in the arts, humanities, or social sciences. To ensure depth of study, at least two courses must be taken in the same subject area. ENGR 341 and ENGR 342 count as art. 3. No more than one engineering or cognate elective course with a grade lower than C-.
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<p>Senior Capstone Design Project (1 course, 1 credit - that integrates engineering with subjects from chosen cognate area)</p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 10%; border-bottom: 1px solid black;">Sem</td> <td style="width: 15%; border-bottom: 1px solid black;">Course</td> <td style="width: 75%;"></td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">ENGR 483</td> <td style="border-bottom: 1px solid black;">Capstone Design I</td> </tr> </table>				Sem	Course		_____	ENGR 483	Capstone Design I																																					
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B.A. ELECTIVES	COGNATE DEPT./PROGRAM ELECTIVES																																																																					
<p>Engineering Electives (3 courses, 3-3.75 credits)</p> <p>Three electives from the following, at least two of which must be above 100 level and at least one of which must be at the 300 level or above:</p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 10%; border-bottom: 1px solid black;">Sem</td> <td style="width: 15%; border-bottom: 1px solid black;">Course</td> <td style="width: 75%;"></td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">ENGR 110•</td> <td style="border-bottom: 1px solid black;">Engr. Computation & Analysis OR</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">ENGR 116</td> <td style="border-bottom: 1px solid black;">Intro. to Biomedical Engineering OR</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">ENGR 120</td> <td style="border-bottom: 1px solid black;">Introduction to Engineering Design</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">ENGR 212L</td> <td style="border-bottom: 1px solid black;">Linear Circuit Theory</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">ENGR 221L</td> <td style="border-bottom: 1px solid black;">Digital Circuits & Systems</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">ENGR 226</td> <td style="border-bottom: 1px solid black;">Mechanics II</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">ENGR 301L•</td> <td style="border-bottom: 1px solid black;">Signal Processing & Applications</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">ENGR 302</td> <td style="border-bottom: 1px solid black;">Image Processing/Biomed Applic.</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">ENGR 303L</td> <td style="border-bottom: 1px solid black;">Analog & Digital Communication</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">ENGR 305L</td> <td style="border-bottom: 1px solid black;">Microelectronic Circuits</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">ENGR 306</td> <td style="border-bottom: 1px solid black;">Intro to Machine Learning</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">ENGR 311</td> <td style="border-bottom: 1px solid black;">Electrophysiology</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">ENGR 312</td> <td style="border-bottom: 1px solid black;">Automatic Control Systems</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">ENGR 316</td> <td style="border-bottom: 1px solid black;">Neural Engineering</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">ENGR 320</td> <td style="border-bottom: 1px solid black;">Introd Robot Manipulation</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">_____</td> </tr> <tr> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">_____</td> <td style="border-bottom: 1px solid black;">_____</td> </tr> </table>	Sem	Course		_____	ENGR 110•	Engr. 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<p>Program totals: 18 courses, 18.75-21 credits</p>																																																																						

NOTE: Courses with laboratories (denoted by suffix 'L') count as 1.25 course credits; courses without labs count as 1.0 course credit, except where noted. Program totals do not include course/credit counts from "Additional Degree Requirements".

The maximum number of engineering transfer courses shall be three (refer to minutes of 11-30-2011 and 4-20-2012)

• - Satisfies computer programming proficiency requirement as well as CPSC 115 or CPSC 215.