# Computer Science BS Degree
### For "Undecided Engineering" students who switch to CS following the freshman year, start with CS 115, and do not take co-op

**(Notes about how to map Engineering curriculum to CS curriculum indicated in *red italics*)**

| FALL | | SPRING | | SUMMER | |
|---|---|---|---|---|---|
| TERM 1 | | TERM 2 | | | |
| MA 121 followed by MA 122 | Differential Calculus | MA 123 followed by MA 124 | Series, Vectors, Functions, and Surfaces | | |
| | Integral Calculus | | Calculus of Two Variables | | |
| E 101 | Engineering Experiences *(Together with Spring E 122 counts as one Free elective)* | MGT 103 | Intro to Entrepreneurship *(Extra course)* | | |
| E 121 + E 120 | Engineering Design I Engineering Graphics *(Together count as one Free elective)* | E 122 | Engineering Design II *(Together with Fall E 101 counts as one Free elective)* | | |
| E 115 | Intro. to Programming *(Does not count; extra course)* | | | | |
| CH115 | Chemistry I *(Counts as Science I)* | PEP 111 | Mechanics *(Counts as Math/Science elective)* | | |
| CH117 | Chemistry Lab *(Counts as Science Lab)* | Science | *(Counts as Science II only if CH 116 or CH 281 is taken; a different course will count as Math/Science elective)* | | |
| CAL 103/105 | Humanities | CAL 105/103 | Humanities | | |
| PE 200 | Phys. Ed. I | PE 200 | Phys. Ed. II | | |
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| TERM 3 | | TERM 4 | | | |
| CS 115 | Intro to Computer Science | CS 284 | Data Structures | CS 385 or CS 590 | Algorithms *(CS 385 offered on campus; equivalent course CS 590 offered via WebCampus)* |
| CS 135 | Discrete Structures | CS 383 or CS 550 | Computer Organization & Programming | | |
| CS 146 | Intro. to Web Programming and Project Development | CS 347 | Software Development Process *(prereq waived)* | | |
| BT 353 | Project Management | MA 222 | Probability& Statistics | | |
| HUM | Humanities 200 level | | *(If CH 116 or CH 281 was taken in Term 2, this course should be a Math/Science elective.  If a different science course was taken in* | | |

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| | | | *Term 2, this course should be CH 116 or CH 281.)* | | |
| PE 200 | Phys. Ed. III | PE 200 | Phys. Ed. IV | | |
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| | TERM 5 | | TERM 6 | | |
| CS 442 | Database Mgmt. Systems | CS 492 | Operating Systems | | |
| CS 443 | Database Practicum | CS 522 or CS 546 or CS 548 | Mobile Systems & App or Web Programming or Enterprise Software Architecture & Design | | |
| CS 334 | Automata & Computation | CS 496 | Principles of Programming Languages | | |
| MA 331 | Intermediate Statistics | | Software Development Elective | | |
| CS 392 | Systems Programming | | Humanities | | |
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| | TERM 7 | | TERM 8 | | |
| CS 423 | Senior Design I | CS 424 | Senior Design II | | |
| CS 306 | Intro to IT Security | | Technical elective | | |
| CS 511 | Concurrent Programming | | Technical elective | | |
| HSS 371 or HPL 455 | Computers & Society or Ethical Issues in Science and Technology | | Humanities 300 level | | |
| | Humanities | | Humanities | | |
| CS 485 | Societal Impact of Information Technologies (1 credit) | | | | |