

# Computer Science, B.S.

Accredited by the Computing Accreditation Commission of ABET, <https://www.abet.org/>

| Course                         | Title   | Semester Credit Hours |
|--------------------------------|---|-----------------------|
| <b>Freshman Year</b>           |   |                       |
| <b>Semester 1</b>              |   |                       |
| CHEM 1311<br>& CHEM 1111       | Gen Inorganic Chemistry I<br>and Gen Inorganic Chem Lab I | 4                     |
| CSEN 2304                      | Introd to Computer Science                                | 3                     |
| ENGL 1301                      | Rhetoric and Composition                                  | 3                     |
| MATH 2413                      | Calculus I  | 4                     |
| GEEN 1201                      | Engineering as a Career <sup>1</sup>                      | 2                     |
| <b>Semester Credit Hours</b>   |   | <b>16</b>             |
| <b>Semester 2</b>              |   |                       |
| CSEN 2306                      | Object-Oriented Programming                               | 3                     |
| ENGL 1302                      | Rhetoric and Composition                                  | 3                     |
| HIST 1301                      | American History to 1877                                  | 3                     |
| MATH 2414                      | Calculus II   | 4                     |
| <b>Semester Credit Hours</b>   |   | <b>13</b>             |
| <b>Sophomore Year</b>          |   |                       |
| <b>Semester 1</b>              |   |                       |
| CSEN 2310                      | Object-Oriented Software Eng                              | 3                     |
| HIST 1302                      | American History since 1877                               | 3                     |
| MATH 3320                      | Differential Equations                                    | 3                     |
| PHYS 2325<br>& PHYS 2125       | University Physics I<br>and University Physics I Lab      | 4                     |
| POLS 2301                      | Government and Politics of US                             | 3                     |
| <b>Semester Credit Hours</b>   |   | <b>16</b>             |
| <b>Semester 2</b>              |   |                       |
| CSEN 2328                      | Data Structures & Algorithms                              | 3                     |
| POLS 2302                      | Government and Politics of TX                             | 3                     |
| Creative arts                  |   | 3                     |
| Lang/Phil/Culture              |   | 3                     |
| Approved Elective <sup>3</sup> |   | 3                     |
| Free Elective                  |   | 1                     |
| <b>Semester Credit Hours</b>   |   | <b>16</b>             |
| <b>Junior Year</b>             |   |                       |
| <b>Semester 1</b>              |   |                       |
| CSEN 3315                      | Computer Graphics   | 3                     |
| EEEN 2340                      | Digital Logic Design                                      | 3                     |
| STAT 1342                      | Elementary Statistics                                     | 3                     |
| Communications <sup>2</sup>    |   | 3                     |
| Social/Behavioral              |   | 3                     |
| <b>Semester Credit Hours</b>   |   | <b>15</b>             |
| <b>Semester 2</b>              |   |                       |
| CSEN 3314                      | Database Systems  | 3                     |
| CSEN 3316                      | Software Engineering I                                    | 3                     |
| EEEN 3449                      | Microprocessor Systems                                    | 4                     |
| MATH 3370                      | Discrete Mathematics                                      | 3                     |

|                                     |                               |            |
|-------------------------------------|-------------------------------|------------|
| Approved Elective <sup>3</sup>      |                               | 3          |
| <b>Semester Credit Hours</b>        |                               | <b>16</b>  |
| <b>Senior Year</b>                  |                               |            |
| <b>Semester 1</b>                   |                               |            |
| CSEN 4201                           | Software Eng Project          | 2          |
| CSEN 4317                           | Software Engineering II       | 3          |
| CSEN 4320                           | Computer Networks             | 3          |
| EEEN 4344                           | Computr Architectr and Design | 3          |
| Approved Elective <sup>3</sup>      |                               | 3          |
| <b>Semester Credit Hours</b>        |                               | <b>14</b>  |
| <b>Semester 2</b>                   |                               |            |
| CSEN 4202                           | Software Eng Project (WI)     | 2          |
| CSEN 4340                           | Computer Security             | 3          |
| CSEN 4362                           | Operating Systems             | 3          |
| CSEN 4366                           | Programming Languages         | 3          |
| Approved Elective <sup>3</sup>      |                               | 3          |
| <b>Semester Credit Hours</b>        |                               | <b>14</b>  |
| <b>Total Credit Hours Required:</b> |                               | <b>120</b> |

<sup>1</sup> Pre-Engineering Students and Alternate Pre-Engineering students are required to take UNIV 1201 instead of GEEN 1201.

<sup>2</sup> COMS 2374 or ENGL 2374 is strongly recommended.

<sup>3</sup> The approved electives must be selected with the consent of the student's adviser, and would normally be more advanced courses in computer science, information systems, mathematics, statistics or one of the sciences taken in the freshman and sophomore years. However, a meaningful sequence of courses in any discipline, such as engineering or agriculture, may be taken with the consent of the student's adviser, except that all such courses must be at the 2000-level or above.