

**ACCELERATED 4+1 BACHELOR AND MASTER DEGREE IN  
COMPUTER SCIENCE  
GENERAL CS CONCENTRATION  
TOTAL CREDITS REQUIRED:141**

| CORE CURRICULUM (STANDARD)*               |                           | MAJOR<br>(COMPUTER SCIENCE)       | OTHER<br>REQUIREMENTS        | MINOR<br>REQUIREMENTS |
|---|---------------------------|-----------------------------------|------------------------------|-----------------------|
| TSU COURSES                               | TCCNS EQUIVALENT          |                                   |                              |                       |
| 42 credits                                |                           | 79 credits                        | 20 credits                   | 0 credits             |
| <u>Communication:</u>                     |                           | CS 124 (3)                        | MATH 241 (4)                 |                       |
| ENG 131 (3) **                            | ENGL 1301                 | CS 140 (3)                        | MATH 242 (4)                 |                       |
| ENG 132 (3)                               | ENGL 1302                 | CS 241 (3)                        | MATH 250 (3)                 |                       |
| <u>Mathematics:</u>                       |                           | CS 243 (3)                        | MATH 473 (3) or MATH 345 (3) |                       |
| MATH 136 (3)                              | MATH 2312                 | CS 246 (3)                        | PHYS 213 (1)                 |                       |
| <u>Life and physical sciences:</u>        |                           | CS 248 (3)                        | PHYS 214 (1)                 |                       |
| CHEM 131 or BIOL 143 (3)                  | CHEM 1311 or<br>BIOL 1308 | CS 250 (3)                        | PHYS 238 (3)                 |                       |
| PHYS 237 (3)                              | PHYS 1301                 | CS 342 (3)                        | FS 102 (1)                   |                       |
| <u>Language, philosophy, and culture:</u> |                           | CS 343 (3)                        |                              |                       |
| ENG 2xx (3) ***                           |                           | CS 346 (3)                        |                              |                       |
| <u>Creative arts:</u>                     |                           | CS 415 (3)                        |                              |                       |
| MUSI 136 or ART 135 (3)                   | MUSI 1306 OR ARTS 1301    | CS 444 (3)                        |                              |                       |
| <u>American history:</u>                  |                           | CS 456 (3)                        |                              |                       |
| HIST 231 (3)                              | HIST 1301                 | CS 499 (3)                        |                              |                       |
| HIST 232 (3)                              | HIST 1302                 | CS 3xx/4xx Elective (3)           |                              |                       |
| <u>Government/political science:</u>      |                           | CS 4xx Elective(3)                |                              |                       |
| POLS 235 (3)                              | GOVT 2305                 | CS 511 (3)                        |                              |                       |
| POLS 236 (3)                              | GOVT 2306                 | CS 531 (3)                        |                              |                       |
| <u>Social and behavioral sciences:</u>    |                           | CS 541 (3)                        |                              |                       |
| ECON 231 (3)                              | ECON 2301                 | CS 551 (3)                        |                              |                       |
| <u>Institutional Options:</u>             |                           | CS 599 (1)                        |                              |                       |
| SC 135 or SC 136 (3)                      | SPCH 1321 or SPCH 1315    | CS 500/600 elective or CS 698 (3) |                              |                       |
| CS 120 (3)                                | COSC 1336 or 1436         | CS 697 or CS 699 (3)              |                              |                       |
|   |                           | CS 500/CS600 Elective (3)         |                              |                       |
|   |                           | CS 500/CS600 Elective (3)         |                              |                       |
|   |                           | CS 500/CS600 Elective (3)         |                              |                       |
|   |                           | CS 500/CS600 Elective (3)         |                              |                       |
|   |                           |                                   |                              |                       |
|   |                           |                                   |                              |                       |

\* Students should be advised by a major advisor prior to registering for any credit, particularly any core curriculum credit as listed.

\*\* (N) represents the number of course credits.

\*\*\* ENG 230, ENG 231, ENG 235, or ENG 244 (TCCN: ENGL 2332, ENGL 2333, ENGL 2326, or ENGL 2326)

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| First Year | FIRST SEMESTER   |               | SECOND SEMESTER   |               |
|------------|--|---------------|---|---------------|
|            | CS 120 Introduction to Programming using C++                                     | 3             | CS 124 Fund of Machine Comp   | 3             |
|            | MATH 136 Precalculus   | 3             | CS 140 Computer Programming in Java                                   | 3             |
|            | CHEM 131 or BIOL 143 General Chemistry, Survey of Life Science                   | 3             | MATH 241 Calculus & Analytic Geometry I                               | 4             |
|            | ENG 131 Freshman English I   | 3             | ENG 132 Freshman English II   | 3             |
|            | MUSI 136 or ART 135 (3)<br>Music Appreciation or Topics in Contemp Art & Culture | 3             | SC 135 or 136 Business & Professional Communication or Public Address | 3             |
|            | FS 102 Freshman Seminar  | 1             |   |               |
|            |  | <b>16 Hrs</b> |   | <b>16 Hrs</b> |

| Second Year | THIRD SEMESTER                            |   | FOURTH SEMESTER                       |   |
|-------------|---|---|---------------------------------------|---|
|             | CS 241 Object Oriented Using C++          | 3 | CS 246 Data & File Structures         | 3 |
|             | CS 243 Computer Organization              | 3 | CS 248 Theory of Computation          | 3 |
|             | MATH 242 Calculus & Analytic Geometry. II | 4 | POLS 235 American Political Systems I | 3 |
|             | CS 250 Computer Networks Fundamentals     | 3 | MATH 250 Linear Algebra               | 3 |
|             | PHYS 213 College Physics Lab I            | 1 | PHYS 214 College Physics Lab II       | 1 |
|             | PHYS 237 College Physics I                | 3 | PHYS 238 College Physics II           | 3 |
|             | <b>17 Hrs</b>                             |   | <b>16 Hrs</b>                         |   |

| Third Year | FIFTH SEMESTER   |   | SIXTH SEMESTER  |   |
|------------|--|---|---|---|
|            | CS 342 Programming Languages and Design  | 3 | CS 346 Database Management Systems                                  | 3 |
|            | CS 343 Microprocessors Design  | 3 | CS 300 / 400 CS Elective  | 3 |
|            | MATH 345 Applied Math for Scientists or<br>MATH 473 Probability and Statistics I | 3 | POLS 236 American Political Systems II                              | 3 |
|            | HIST 231 Social & Political History of the United States to 1877                 | 3 | HIST 232 Social & Political History of the United States since 1877 | 3 |
|            | ENG 2XX Any 200 Level ENG may be selected  | 3 | ECON 231 Principles of Economics I                                  | 3 |
|            | <b>15 Hrs</b>  |   | <b>15 Hrs</b>   |   |

| Fourth Year | SEVENTH SEMESTER                   |   | EIGHTH SEMESTER             |   |
|-------------|------------------------------------|---|-----------------------------|---|
|             | CS 444 Operating Systems           | 3 | CS 456 Software Engineering | 3 |
|             | CS 415 Computer Ethics and Society | 3 | CS 499 Capstone Project     | 3 |
|             | CS 4XX (Elective)                  | 3 | CS 5XX (Core)               | 3 |
|             | CS 5XX (Core)                      | 3 | CS 500/600 Elective         | 3 |
|             | CS 500/600 Elective                | 3 |                             |   |
|             | <b>15 Hrs</b>                      |   | <b>12 Hrs</b>               |   |

| Fifth Year | NINTH SEMESTER                       |   | TENTH SEMESTER          |   |
|------------|--------------------------------------|---|-------------------------|---|
|            | CS 5XX (Core)                        | 3 | CS 697 or CS 699 Thesis | 3 |
|            | CS 5XX (Core)                        | 3 | CS 500/600 Elective     | 3 |
|            | CS 599                               | 1 | CS 500/600 Elective     | 3 |
|            | CS 500/600 elective or CS 698 Thesis | 3 |                         |   |
|            | <b>10 Hrs</b>                        |   | <b>9 Hrs</b>            |   |