

| <b>B.S. in Computer Science - Track 'A' - Advanced Computing</b> |  |                |
|--|--|----------------|
| <b>MAJOR REQUIREMENTS/COMPUTER SCIENCE: 51 Credits</b>           |  | <b>Credits</b> |
|  | CS120: Foundations of Computer Science   | 4.0            |
|  | CS175: Introduction to Computer Science I  | 4.0            |
|  | CS176: Introduction to Computer Science II   | 4.0            |
|  | CS202: Discrete Math and Applications  | 4.0            |
|  | CS286: Computer Architecture I   | 3.0            |
|  | CS305: Data Structures and Algorithms  | 4.0            |
|  | CS325: Software Engineering Concepts   | 3.0            |
|  | CS310: Advanced Object Oriented Programming/Design   | 4.0            |
|  | CS432: Database Systems  | 4.0            |
|  | CS438: Operating Systems Analysis  | 4.0            |
|  | CS490: Senior Project  | 4.0            |
| <b>6 credits of CS Electives from 200+ level</b>                 | <i>(except CS288, CS388, CS488)</i>  |                |
|  | CS200+: _____  | 3.0            |
|  | CS200+: _____  | 3.0            |
| <b>3 credits of CS Electives from 400+ level</b>                 | <i>(except CS 488)</i>   |                |
|  | CS400+: _____  | 3.0            |
| <b>REQUIREMENTS OUTSIDE MAJOR: 26 Credits</b>                    |  | <b>Credits</b> |
| <b>12 credits from subjects BY, CE, PH</b>                       | MA125: Calculus with Analytic Geometry I   | 4.0            |
|  | MA126: Calculus with Analytic Geometry II  | 4.0            |
|  | MA319: Probability and Statistics I  | 3.0            |
| <b>Take one Group:</b>   | BY111: Anatomy and Physiology I <b>AND</b><br>BY112: Anatomy and Physiology II                                     |                |
|  | <b>or</b>  |                |
|  | CE111/CE111L: General Chemistry I/Lab <b>AND</b><br>CE112/CE112L: General Chemistry II/Lab                         |                |
|  | <b>or</b>  |                |
|  | PH105/PH105L: Physics and Life Science I/Lab <b>AND</b><br>PH106/PH106L: Physics and Life Science II/Lab           |                |
|  | <b>or</b>  |                |
|  | PH211/PH211L: General Physics with Calculus I/Lab <b>AND</b><br>PH212/PH212L: General Physics with Calculus II/Lab |                |
|  | <b>or</b>  |                |
|  | BY109: Introduction to Biodiversity and Evolution <b>AND</b><br>BY110: Introduction to Cell and Molecular Biology  | 8.0            |
| <b>Select one additional science course:</b>                     | <i>(except BY101, BY104, BY105, CE101, or PH101)</i>   |                |
|  | BY/CE/PH-XXX: _____  | 4.0            |
| <b>3 credits from subjects BY, CE, PH, MA*</b>                   | <i>(*MA-XXX course must be beyond MA118)</i>   |                |
|  | BY/CE/PH/MA-XXX: _____   | 3.0            |
| <b>FREE ELECTIVES: 15 Credits</b>                                |  | <b>Credits</b> |
|  | _____  | 15.0           |
|  | _____  |                |

**B.S. in Computer Science - Track 'A' - Advanced Computing**

**GENERAL EDUCATION REQUIREMENTS: 36 Credits Credits**

|   |   |     |
|---|---|-----|
| First Year Seminar                      | FY-101: First Year Seminar                                    | 3.0 |
| Reading and Writing                     | EN101: College Composition I                                  | 3.0 |
|   | EN102: College Composition II                                 | 3.0 |
| Mathematics                             | Fulfilled in Outside Major Requirements with MA125 or MA126   | 0.0 |
| Natural Sciences                        | Fulfilled in Outside Major Requirements with required courses | 0.0 |
| Literature                              | 3 Credits from courses designated with Course*Type: LIT       | 3.0 |
| Aesthetics and Creativity               | 3 Credits from Art, Music, Theatre, or Dance                  | 3.0 |
| Technological Literacy                  | CS102: Applied Computing for Problem Solving                  | 3.0 |
| Reasoned Oral Discourse                 | Fulfilled in Outside Major Requirements with CS490            | 0.0 |
| Historical Perspective                  | 3 Credits from courses designated with Course*Type: HS.SV     | 3.0 |
| Social Science                          | 3 Credits from courses designated with Course*Type: SS.SV     | 3.0 |
| Historical Perspective/Social Sciences  | 3 Credits from courses designated with Course*Type: HS.SV     | 3.0 |
|   | 3 Credits from courses designated with Course*Type: SS.SV     |     |
| Interdisciplinary Perspectives          | 3 Credits from courses designated with Course*Type: ISP       | 3.0 |
| Cultural Diversity/Global Understanding | 3 Credits from courses designated with Course*Type: CD        | 6.0 |
|   | 3 Credits from courses designated with Course*Type: GU        |     |
|   | <b>or</b> 6 Credits from the SAME foreign language            |     |
| Experiential Education                  | One course designated with Course*Type: EX                    | 0.0 |
| Writing Intensive                       | Two courses from Computer Science (CS) designated             | 0.0 |
|   | with Course*Type: WT  | 0.0 |

**Total Credits for B.S. in Computer Science - Track 'A' - Advanced Computing = 128**

**NOTES:**

\* 58 credits must be completed at the 200 level or higher.