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| **2022-2023** | **Bachelor of Science (B.S.) Degree - Computer Science & Information Technology Major  Name:** **ID:** | | | | | | | |
| **Courses in BOLD are required by this major**  **Courses in regular type are to fulfill general education requirements and DO NOT have to be taken the specific semester stated.**  ***Courses in ITALIC are strongly recommended***  **+denotes courses offered only every other year**  **ALSO REQUIRED FOR GRADUATION**   * **120 credit hours** * **39 Upper division credits** * **2.00 GPA** * **Completion of all major & general ed requirements** |
| **First Year Fall** | **Learning Outcome** | **Sem Hours** | **Date Met** | **First Year Spring** | **Learning Outcome** | **Sem Hours** | **Date Met** |
| **CSIT1100 Principles of Computing** |  | **3** |  | **CSIT1200 Data Structures** |  | **3** |  |
| **DSCI1500 Beginning Data Science** |  | **3** |  | UNIV1100 or UNIV1200 | SS | **3** |  |
| **MATH1370 Statistics for Sciences** | GE2A | **3** |  | ENGL1100 – Composition I | GE1A | 3 |  |
| UNIV1100 or UNIV1200 | SS | 3 |  | Art | GE3A | 3 |  |
| LEAD1100 Self leadership I | LL | 2 |  | Elective |  | 3 |  |
|  |  |  |  | LEAD1200 Self Leadership II | LL | 2 |  |
| **Total Hours** |  | **14** |  | **Total Hours** |  | **17** |  |
| **Notes:** Join clubs and organizations on campus. Look at joining ACM club on campus. Start your networking circle by signing up for GU4U - <https://my.graceland.edu/ICS/Alumni_and_Friends/GU4U/> Find winter break or summer job shadowing and volunteer opportunities. | | | | | | | |
| **Second Year Fall** | **Learning Outcome** | **Sem**  **Hours** | **Date Met** | **Second Year Spring** | **Learning Outcome** | **Sem Hours** | **Date Met** |
| **CSIT2010 Object-Orient Programming** |  | **3** |  | **CSIT2100 Intermed. Programming1** |  | **3** |  |
| **CSIT2240 Computer Hardware & OS** |  | **3** |  | **CSIT2300 Linux Operating Systems** |  | **3** |  |
| **MATH2350 Discrete Math** |  | **3** |  | History | GE3B | 3 |  |
| ENGL2110 – Composition II | GE1C | 3 |  | COMM1100 – Foundations of Public Speaking | GE1B | 3 |  |
| LEAD2100 Group Leadership I | LL | 2 |  | UNIV2100 | SS | 3 |  |
|  |  |  |  | LEAD2200 Group Leadership II | LL | 2 |  |
| **Total Hours** |  | **14** |  | **Total Hours** |  | **17** |  |
| **Notes: Be sure to connect with your faculty advisor early during the third year to discuss internship opportunities! Internships need to be approved in order to receive academic credit. Join clubs and organizations on campus.** | | | | | | | |
| **Third Year Fall**  ***(check your degree audit!)*** | **Learning Outcome** | **Sem**  **Hours** | **Date Met** | **Third Year Spring** | **Learning Outcome** | **Sem Hours** | **Date Met** |
| **Key:**  **GE\*\*=General Education**  **LL=Life & Leadership**  **SS = Strategic Skills** | **Upper Division CSIT Elective** |  | **3** |  | **CSIT3300 Database Concepts & SQL** |  | **3** |  |
| Humanities | GE3C | 3 |  | **CSIT3120 Computer Networks and Network Security** |  | 3 |  |
| Natural Science | GE3D | 4 |  | *CSIT2100 Intermed. Programming1* |  | 3 |  |
| Elective |  | 3 |  | Social Science | GE3E | 3 |  |
| LEAD3100 Organizational Leadership I | LL | 2 |  | Elective |  | 3 |  |
|  |  |  |  |  | LEAD3200 Organizational Leadership II | LL | 2 |  |
|  | **Total Hours** |  | **15** |  | **Total Hours** |  | **17** |  |
|  | **Notes: Find student leadership positions or join a club or organization on campus. Research and apply for internships fall of the junior year to be completed summer after junior year. We recommend that students interested in double majoring in Data Science take upper level math courses.** | | | | | | | |
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|  | **Fourth Year Fall**  ***(apply for graduation!)*** | **Learning Outcome** | **Sem**  **Hours** | **Date Met** | **Fourth Year Spring** | **Learning Outcome** | **Sem Hours** | **Date Met** |
|  | **CSIT3200 Systems Analysis & Design** |  | **3** |  | **CSIT4100 Syst. Dev. Project2** |  | **3** |  |
| **Upper Division CSIT Elective** |  | **3** |  | *Upper Division CSIT Elective* |  | **3** |  |
|  | Elective |  | 3 |  | Elective |  | 3 |  |
|  | Elective |  | 3 |  | Elective |  | 3 |  |
|  | LEAD4100 Life and Leadership Practicum I | LL | 2 |  | LEAD4200 Life and Leadership Practicum II | LL | 2 |  |
|  |  |  |  |  |  |  |  |  |
|  | **Total Hours** |  | **14** |  | **Total Hours** |  | **14** |  |
|  | **Notes: Fill out the form to Apply to Graduate. Check in with your advisor during your senior year about career opportunities outside graduate programs, including opportunities for a gap year that help make you a more competitive graduate school applicant.** | | | | | | | |
| **Updated:**  **7/1/2022** | **1At least 2 semester hours required, but typically a 3 semester hour course. You can retake CSIT2100 for different languages (recommended).**  **2Capstone Senior Project (CSIT4100).**  ***NOTE: We recommend that students interested in graduate study or a career as a computer scientist take mathematics courses (with two semesters of calculus and linear algebra), take lab science courses in physics, chemistry, or biology. We recommend that students interested in a career in information technologies also minor in business administration. Freshman math courses could be moved to the next year without hindering the four year plan.***  **DISCLAIMER: These plans are to be used as guides only and are subject to changes in curriculum requirements. Refer to your Graceland Catalog for complete and accurate information. The student has the ultimate responsibility for scheduling and meeting the graduation requirements.** | | | | | | | |

