



B.S. in Computer Science

COMPSCBS.2017 (mrs 1407)
60 credits

Effective Date: 09/2017

| | | |
|------------------|--------------------------------|-----------------|
| Name of Student: | | |
| Student ID #: | | Graduation Date |
| Home Country: | <input type="checkbox"/> IWORK | |
| Advisor: | Name | Date |

Required courses for admission to the major

12 Credits

Student must pass the following courses with a grade of C or better.

| Course # | Title | Hr. | Prerequisites | Offered | Sem. | Grade |
|----------|-------------------------------|-----|---------------|---------|------|-------|
| CIS 101 | Beginning Programming | 3 | | F,W,S | | A |
| CIS 202 | Object-Oriented Programming I | 3 | CIS 101 | F,W,S | | A |
| CIS 205 | Discrete Mathematics I | 3 | CIS 101 | F,W,S | | A |
| IT 280 | Computer Networking | 3 | | F,W,S | | A |

To be accepted into this major, you must pass all courses listed above with a C or better. You must also have a cumulative GPA of 2.0 or higher. I understand that **One retake is allowed per class, for up to three classes. Additional retakes require special permission.** I understand that if I exhaust my repeats, I risk the chance of not being able to continue in the major or any other major in the CIS department. Please acknowledge that you understand this policy by signing below.

Academic Advisor

Date

Student

Date

Accepted into the major: CS Program Chair

Date

Core Requirements

41 Credits

Classes marked "MO" are for admitted majors only.

| | | | | | | | |
|---------|---|---|------------------------------------|----|-------|--|----|
| CIS 206 | Discrete Mathematics II | 3 | CIS 202, 205 | | F | | A |
| CIS 305 | Systems Engineering I | 3 | CIS 202 | MO | F,W | | A- |
| CIS 405 | Systems Engineering II | 3 | CIS 305, IS 350 | MO | W,S | | A |
| CIS 470 | Ethics in Computer and Information Sciences | 2 | ENGL 315 or ENGL 316 or equivalent | MO | F,S | | |
| CS 203 | Object-Oriented Programming II | 3 | CIS 202 | | F | | A |
| CS 210 | Computer Organization | 3 | CIS 101 | | W | | |
| CS 301 | Algorithms and Complexity | 3 | CS 203, CIS 206 | MO | W | | A |
| CS 320 | Introduction to Computational Theory | 3 | CS 203, CIS 206 | MO | W | | |
| CS 400 | Computer Science Proficiency | 0 | Last semester in residence | MO | F,W,S | | |
| CS 401 | Web Applications Development | 3 | CS 203 and IS 350 | | F | | |
| CS 415 | Operating Systems Design | 3 | CS 210, 301 | MO | F | | |
| CS 420 | Programming Languages | 3 | CS 301, CS 320 | MO | S | | |
| CS 490R | Advanced Topics in Computer Science | 3 | CS 301 | MO | F,W,S | | A |
| CS 490R | Advanced Topics in Computer Science | 3 | CS 301 | MO | F,W,S | | |
| IS 350 | Database Management Systems | 3 | CIS 101 | MO | F,W | | A |

Math and Science Requirements

7 Credits

Students majoring in CS are expected to take Calculus (Math 119 or Math 112/113) in fulfillment of their "Quantitative Reasoning" Math General Education requirement

| | | | | | | |
|------------|--------------------------|---|--|-------|--|---|
| MATH 121 | Principles of Statistics | 3 | MATH 107 or 110 | F,W,S | | A |
| PHYS 121/L | General Physics I/ Lab | 4 | MATH 112 and either High School Trigonometry or MATH 111 | F,W | | |

Supplemental Courses

0 Credits

For students considering graduate school, we recommend taking MATH 343 and one additional lab-based course from the list below

| | | | | | | |
|------------|---------------------------|---|--|----------------------|--|--|
| MATH 343 | Elementary Linear Algebra | 3 | MATH 112 | F-odd, W-odd, S-even | | |
| PHYS 220/L | General Physics II/ Lab | 4 | PHYS 121/L. Completion of MATH 213 recommended. | F,W | | |
| PHYS 221/L | General Physics III/Lab | 4 | PHYS 121. Completion of MATH 213 recommended. | S | | |
| CHEM 105/L | General Chemistry I/ Lab | 4 | MATH 110 with a C- or better, or ACT Math score higher than 22 or SAT Math score higher than 520. (High School Chemistry or CHEM 101 highly recommended) | F,W | | |
| BIOL 212/L | Marine Biology/Lab | 4 | BIOL 113 | S | | |

Total Credits Mapped for Graduation:

- One D+, D, D- is allowed above. All other credits must be C- or better.
- One retake is allowed per class, for up to three classes. Additional retakes require special permission.
- A program-approved assessment test must be taken during your last full semester at BYU-H.
- Students may seek one and only one major in either BCIS, CS, IS, or IT.
- Minors in CIS require at least 9 CIS credits not applied to other majors or minors.

The terms of this MRS will be honored by the Faculty and University within the next 8 years. If courses cease to be offered, options for substitution will be provided.

Last Revision 12/7/18