# Computer Science Computer Science Concentration, B.S.

## University of Wyoming

| Freshman Fall Semester | | | Hrs | Min Grade | Notes |
|---|---|---|---|---|---|
| COSC | 1010 | Introduction to Computer Science | 4 | C | |
| MATH | 2200 | Calculus I | 4 | C | |
| | | Science Series I | 4 | | Note 1 |
| | 1101 | First Year Seminar | 3 | | USP FYS requirement course, any department |
| | | Credit hours subtotal: | **15** | | |

| Freshman Spring Semester | | | Hrs | Min Grade | Notes |
|---|---|---|---|---|---|
| COSC | 1030 | Computer Programming I | 4 | C | |
| MATH | 2205 | Calculus II | 4 | C | |
| | | Science Series II | 4 | | Note 1 |
| | | Communications Course I | 3 | C | USP COM1 requirement course |
| | | Credit hours subtotal: | **15** | | |

| Sophomore Fall Semester | | | Hrs | Min Grade | Notes |
|---|---|---|---|---|---|
| COSC | 2030 | Computer Programming II | 4 | C | |
| COSC | 2150 | Computer Organization | 3 | C | |
| COSC | 2300 | Discrete Structures | 3 | C | Cross listed with MATH 2300 |
| | | Humanities Course I | 3 | | USP H requirement course |
| | | Communications Course II | 3 | C | USP COM2 requirement course |
| | | Credit hours subtotal: | **16** | | |

| Sophomore Spring Semester | | | Hrs | Min Grade | Notes |
|---|---|---|---|---|---|
| COSC | 3011 | Software Design | 3 | C | |
| COSC | 3020 | Algorithms and Data Structures | 4 | C | |
| MATH | | MATH Elective I | 3 | C | Note 2 |
| | | Humanities Course II | 3 | | USP H requirement course |
| | | General Elective | 3 | | 1000 level or higher, any department and Note 3 |
| | | Credit hours subtotal: | **16** | | |

Notes:

1. Must complete two course from a tightly-coupled series. Either CHEM 1020 & 1030 or CHEM 1050 & 1060 or PHYS 1110 & 1120 or PHYS 1210 & 1220 or PHYS 1310 & 1320 or LIFE 1010 & (2022 0r 2023). The CHEM, PHYS, and LIFE 1010 courses all meet the USP PN requirement.

2. Total of 6 hours of additional mathematics course work. Must choose MATH courses above Calculus II or STAT courses 3000 level and above. Exceptions: cannot count MATH 2350, MATH 2355, MATH 4000, or any variable length credit courses toward this requirement.

3. All Computer Science and Mathematics courses require a minimum grade of C.

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### Junior Fall Semester

| | | | Hrs | Min Grade | Notes |
|---|---|---|---|---|---|
| COSC | 3015 | Functional Programming | 3 | C | |
| COSC | 4740 | Operating Systems | 4 | C | |
| COSC | | COSC Elective I | 3 | C | Note 4 |
| | | Science Elective I | 4 | | Note 5 |
| | | US & Wyoming Constitution | 3 | | USP V requirement course |
| | | Credit hours subtotal: | **17** | | |

### Junior Spring Semester

| | | | Hrs | Min Grade | Notes |
|---|---|---|---|---|---|
| COSC | 3050 | Ethics for the Computer Professional | 1 | C | |
| COSC | | COSC Elective II | 3 | C | Note 4 |
| MATH | | MATH Elective II | 3 | C | Note 2 |
| | | Science Elective II | 4 | C | Note 5 |
| | | Upper Division Elective I | 3 | | Notes 3 and 6 |
| | | Credit hours subtotal: | **14** | | |

### Senior Fall Semester

| | | | Hrs | Min Grade | Notes |
|---|---|---|---|---|---|
| COSC | 4950 | Senior Design I | 1 | C | |
| COSC | | Systems Course | 3 | C | Note 7 |
| COSC | | Theory Course | 3 | C | Note 8 |
| STAT | 4220 | Engineering Statistics | 3 | C | Note 9 |
| | | Communications Course III | 3 | | USP COM3 requirement course |
| | | Credit hours subtotal: | **13** | | |

### Senior Spring Semester

| | | | Hrs | Min Grade | Notes |
|---|---|---|---|---|---|
| COSC | 4955 | Senior Design II | 2 | C | |
| COSC | | Programming Language Course | 3 | C | Note 10 |
| COSC | | COSC Elective III | 3 | C | Note 4 |
| COSC | | COSC Elective IV | 3 | C | Note 4 |
| | | Upper Division Elective II | 3 | | Notes 3 and 6 |
| | | Credit hours subtotal: | **14** | | |

| | | |
|---|---|---|
| **TOTAL CREDIT HOURS:** | **120** | |

Notes:

4. Total of 12 hours of Upper Division COSC electives. At most 3 hours of COSC 3970 (Internship) can be counted toward this requirement.

5. See Department web pages for a current list of approved courses. If the USP PN requirement has not already been met, choose courses which are also approved for the USP PN.

6. 3000 level or higher course, any department.

7. Choose one of COSC 4760: Networks or COSC 4820: Databases.

8. Choose one of COSC 4100: Foundations or COSC 4200: Computability

9. Choose one of STAT 2010/2050/2070/4220.

10. Choose one of COSC 4780: PPL or COSC 4785: Compilers.