

Name: _____

NORTH DAKOTA STATE UNIVERSITY

College of Science & Mathematics

B.S. Computer Science

Fall 2012

ID: _____

GENERAL EDUCATION REQUIREMENTS - 40 Credits Required

MAJOR REQUIREMENTS - 53 credits

| Course | Number | Course Title | Credits | Grade | Course | Number | Course Title | Credits | Grade |
|---|------------------|---------------------------------|---------|-------|--|--------|---|---------|-------|
| First Year Experience (F) 1 credit | | | | | CSCI | 160 | Computer Science I | 4 | |
| UNIV | 189 ¹ | Skills for Academic Success | 1 | | CSCI | 161 | Computer Science II | 4 | |
| Communication (C) 12 credits | | | | | CSCI | 213 | Modern Software Development | 3 | |
| ENGL | 110 | College Composition I | 3 | | CSCI | 222 | Discrete Mathematics | 3 | |
| ENGL | 120 | College Composition II | 3 | | CSCI | 313 | Software Development for Games | 3 | |
| COMM | 110 | Fundamentals of Public Speaking | 3 | | CSCI | 336 | Theoretical Computer Science II | 3 | |
| ENGL | 321 or 324 | (Upper-Division Writing) | 3 | | CSCI | 366 | Files for Database Systems | 3 | |
| Quantitative Reasoning (R) 3 credits | | | | | CSCI | 372 | Comparative Programming Languages | 3 | |
| MATH | 165 | Calculus I | 4 | | CSCI | 374 | Computer Organization & Architecture | 3 | |
| Science & Technology (S) (One course w/ co-requisite lab) 10 credits | | | | | CSCI | 415 | Networking and Parallel Computation | 3 | |
| | | | | | CSCI | 445* | Software Projects: Capstone | 3 | |
| | | | | | CSCI | 467 | Algorithm Analysis | 3 | |
| | | | | | CSCI | 474 | Operating Systems Concepts | 3 | |
| Humanities & Fine Arts (A) (Max of 3 cr in fine arts perform) 6 credits | | | | | CSCI | 489* | Social Implications of Computers | 3 | |
| | | | 3 | | *CSCI 445 & 489 form the dept capstone. Both courses are usually taken during the last spring semester the student is enrolled. | | | | |
| | | | 3 | | | | | | |
| Social & Behavioral Sciences (B) 6 credits | | | | | 9 Credits of Computer Science Electives 3 courses from the categories listed below, with no more than two courses from any single category. No more than 2 courses may come from any single category. | | | | |
| | | | 3 | | | | | | |
| | | | 3 | | | | | | |
| Wellness (W) 2 credits | | | | | Software Engineering: | | | | |
| | | | 2 | | CSCI | 413 | Principles of Software Engineering | 3 | |
| Cultural Diversity (D) | | | | | CSCI | 477 | Object-Oriented Systems | 3 | |
| | | | | | CSCI | 488 | Human-Computer Interaction | 3 | |
| Global Perspectives (G) | | | | | Large Systems: | | | | |
| | | | | | CSCI | 426 | Introduction to Artificial Intelligence | 3 | |
| COLLEGE REQUIREMENTS for a BS Degree | | | | | CSCI | 458 | Microcomputer Graphics | 3 | |
| The College of Science & Mathematics requires an additional 6 credits in Humanities or Social Sciences for the BS degree. | | | | | CSCI | 459 | Foundations of Computer Networks | 3 | |
| | | | | | Systems Modeling: | | | | |
| BS Degree Requirements: | | | | | CSCI | 418 | Simulation Models | 3 | |
| | | | | | CSCI | 453 | Linear Programming and Network Flows | 3 | |
| HUM or Soc Sci | | | 3 | | CSCI | 454 | Operations Research | 3 | |
| HUM or Soc Sci | | | 3 | | Emerging Areas: | | | | |
| DEPARTMENT REQUIREMENT | | | | | CSCI | 345 | Topics in Personal Computers | 3 | |
| The Computer Science Department requires an additional 3 credits in Humanities or Social Sciences for the BS degree. | | | | | CSCI | 469 | Network Security | 3 | |
| | | | | | CSCI | 473 | Foundations of the Digital Enterprise | 3 | |
| HUM or Soc Sci | | | 3 | | CSCI | 476 | Computer Forensics | 3 | |
| ¹ Students transferring in 24 or more credits do not need to take UNIV 189. A grade of C or better is required for all CSCI prefix courses. | | | | | CSCI | 479 | Introduction to Data Mining | 3 | |
| | | | | | COMPUTER SCIENCE CURRICULUM - Continued on page 2 | | | | |

| UNIVERSITY GRADUATION REQUIREMENTS | | Related Required Courses - 10 Credits Required (Not counted as part of major credits) | | | | |
|---|-------------|---|------------------------|---|----------------|--------------|
| Residency at NDSU (15 cr. @ NDSU): | 36 Credits | Course | Number | Course Title | Credits | Grade |
| | | MATH | 166 | Calculus II | 4 | |
| Credits at 4-year University: | 60 Credits | STAT | 367 | Probability | 3 | |
| | | STAT | 368 | Statistics | 3 | |
| Courses numbered 300+ (Min. 15 cr @ NDSU): | 37 Credits | One Year Lab Science Sequence - 8 Credits Required * Fulfills Gen Ed Req. **Fulfills Gen Ed & Global Perspective Req. | | | | |
| Total Credits Required: | 122 Credits | *BIOL | 126/126L & 220/220L | Human Biology/Lab & Human Anatomay & Physiology/Lab | 3/1 3/1 | |
| NOTES/COMMENTS | | *CHEM | 121/121L & 122/122L | General Chemistry I/Lab & General Chemistry II/Lab | 3/1 3/1 | |
| ALL COURSES ON THIS CURRICULUM ARE REQUIRED FOR THE MAJOR Courses taken to fulfill gen ed, college and major requirements may NOT be taken P/F | | *CHEM | 150/160 & 151/161 | Principles of Chemistry I/Lab & Principles of Chemistry II/Lab | 3/1 3/1 | |
| | | **GEOL | 105/105L & 106/106L | Physical Geology/Lab & The Earth Through Time/Lab | 3/1 3/1 | |
| | | *PHYS | 211/211L & 212/212L | College Physics I/Lab & College Physics II/Lab | 3/1 3/1 | |
| | | *PHYS | 251/251L & 252/252L | University Physics I/Lab & University Physics II/Lab | 4/1 4/1 | |
| | | 3 Credits Required: One additional science course that satisfies general education requirements | | | | |