

## Computer Science Major- School of Computing 2003-2004

2: \_\_\_\_\_ ID#: \_\_\_\_\_ Graduation Date: \_\_\_\_\_

| Course #   | Title                    | Hrs | Prerequisites               | Offered   | Sem | Grade |
|------------|--------------------------|-----|-----------------------------|-----------|-----|-------|
| 101 or 142 | Computer Programming I   | 2   | Math 100 or equivalent      | F W Sp Su |     |       |
| 201        | Computer Programming II  | 3   | CS 101, Math 110            | F W Sp    |     |       |
| 202 or 240 | Computer Programming III | 3   | CS 201, Math 201, Math 201L | F W Sp    |     |       |
| 210 or 143 | Computer Organization    | 2   | CS 101, Math 110            | F W       |     |       |
| 301 or 312 | Algorithms & Complexity  | 3   | CS 202, Math 202, Math 202L | F W       |     |       |
| 320 or 252 | Computational Theory     | 2   | CS 201, Math 201, Math 201L | W         |     |       |
| 333        | Software Engineering I   | 2   | CS 202                      | F         |     |       |
| 410 or 380 | Computer Architecture    | 2   | CS 210, CS 301              | W         |     |       |
| 415 or 345 | Operating Systems Design | 2   | CS 210, CS 301              | W         |     |       |
| 420 or 330 | Programming Languages    | 2   | CS 202, CS 320              | F         |     |       |
| 433        | Software Engineering II  | 2   | CS 333                      | W         |     |       |
| 440 or 470 | Intelligent Systems      | 2   | CS 301                      | F         |     |       |
|            |                          |     |                             |           |     |       |
|            |                          |     |                             |           |     |       |

|   |  |   |                                |           |  |  |
|---|--|---|--------------------------------|-----------|--|--|
| 80  | Data Communications                            | 2 | CS 101                         | F W       |  |  |
| 51  | Adv. Data File/Database                        | 3 | IS 350 or CS 202               | F W Sp    |  |  |
| TH 201 or CS 235                                | Discrete Mathematics I                         | 2 | Math 110 or equivalent         | F W Sp    |  |  |
| TH 201L or CS 235                               | Discrete Mathematics I Lab                     | 1 | Math 110 or equivalent, CS 101 | F W Sp    |  |  |
| TH 202 or CS 236                                | Discrete Mathematics II                        | 2 | Math 201                       | F W Sp    |  |  |
| TH 202L or CS 236                               | Discrete Mathematics II Lab                    | 1 | Math 201L                      | F W Sp    |  |  |
| STATISTICS                                      | MATH 221: Principles of Statistics I           | 3 | Math 110                       | F W Sp Su |  |  |
|   | <b>OR</b><br>MATH 321: Mathematical Statistics | 3 | Math 214 or consent            | W odd     |  |  |
| CALCULUS  | Math 112: Calculus I                           | 5 | Math 111                       | F W       |  |  |
|   | <b>OR</b><br>Math 113: Calculus II             | 5 | Math 112                       | F W       |  |  |
|   | <b>OR</b><br>Math 119: Intro. to Calculus      | 4 | Math 110, 111                  | F         |  |  |
| TWO SEMESTER<br>SCIENCE,<br>3-CREDIT<br>SCIENCE | PHYS 121: General Physics I                    | 3 | Math 119 or 113                | F         |  |  |
|   | PHYS 122: General Physics II                   | 3 | Phys 121                       | W         |  |  |
|   | <b>OR</b><br>CHEM 105: Gen. Chem I             | 3 | Chem 101                       | F W       |  |  |
|   | CHEM 105L: Gen. Chem I Lab                     | 1 | Chem 101                       | F W       |  |  |
|   | CHEM 106: Gen. Chem II                         | 3 | Chem 105                       | W Sp      |  |  |
|   | CHEM 106L: Gen. Chem II Lab                    | 1 | Chem 105                       | W Sp      |  |  |

One D+, D, D- is allowed above. All other credits must be C- or better. \_\_\_\_\_

**Total CS Credit:** Complete 40 or more hours of CS coursework. IS 131, 230, 280, 351, 431, Math 201L, 202L may be applied toward this total. (Math 201 and 202 credits can not be counted. IS 235 and 236 may be counted as 1 credit each toward this total.) \_\_\_\_\_

**Advanced CS Credit:** Complete 16 or more hours of CS coursework at the 400-499 level. IS 431 may be applied toward this total. \_\_\_\_\_

**Breadth:** Complete 30 or more hours in Art, Humanities, Religion, English, IDS and History (courses other than CS, IS, MATH, SCIENCE and EXS). \_\_\_\_\_  
 Note: normally students will naturally earn 37 hours by completing BYUH General Education and Religion requirements.

Complete the GRE Computer Science Subject Test.  
 (ETS Major Field Test in Computer Science may be allowed). \_\_\_\_\_



**Information Systems Major - School of Computing  
2003-2004**

Name \_\_\_\_\_ ID# \_\_\_\_\_ Graduation Date \_\_\_\_\_

**Requirements I – Problem Solving Skills (7 credits)**

- √ Courses may be repeated only once.
- √ No grades lower than “C-“ allowed in Requirement I.
- √ Requirement I courses must all be completed before taking courses in Requirement II.
- √ To continue in the major, a minimum 2.0 or “C” average GPA must be maintained.

|          |  |   |                        |          |
|----------|--|---|------------------------|----------|
| IS 178   | Introduction to Web-Html               | 1 |                        | F, W, Sp |
| IS 190L  | Bus. Prob. Solving with Applications I | 1 |                        | F, W, Sp |
| CS 101   | Computer Programming I                 | 2 |                        | F, W, Sp |
| Math 221 | Principles of Statistics I             | 3 | Math 110 or equivalent | F, W, Sp |

**Requirements II – Foundation (24 credits)**

- √ Only one “D” grade will be allowed in Requirements II, III & IV.

|         |   |   |                                   |          |
|---------|---|---|-----------------------------------|----------|
| CS 201  | Computer Programming II                 | 3 | CS 101 Programming I              | F, W, Sp |
| IS 220  | UNIX System Administration              | 3 | Type 35wpm                        | F, W, Sp |
| IS 240L | Web, HTML & DHTML                       | 3 | IS 178, Type 35wpm                | F, W, Sp |
| IS 250L | Hardware Repair & Diagnostics           | 3 | IS 190L or equivalent             | F, W     |
| IS 280  | Data Communications Systems             | 2 | CS 101 or equivalent              | F, W     |
| IS 290L | Bus. Prob. Solving with Applications II | 1 | IS 190L or equivalent             | F, W, Sp |
| IS 330  | Management Information Systems          | 3 |                                   | F, W, Sp |
| IS 350  | Data Files and Data Bases               | 3 | CS 101, IS 290L or equivalent     | F, W     |
| IS 453  | Systems Analysis & Design               | 3 | CS 101, IS 330, 350 or equivalent | F, W     |

**Requirements III – Select one of the following tracks (6 credits)**

**Programming Track**

|        |                              |   |   |          |
|--------|------------------------------|---|---|----------|
| CS 202 | Computer Programming III     | 3 | CS 201, Math 201, Math 201L               | F, W, Sp |
| IS 431 | E-Commerce / Web Development | 3 | CS 101, 201, 202 and IS 350 or Equivalent | F, W     |

**System & Network Administration Track\***

|         |                                    |   |                       |          |
|---------|------------------------------------|---|-----------------------|----------|
| IS 284L | System & Network Administration I  | 3 | IS 280 or equivalent  | F, W, Sp |
| IS 286L | System & Network Administration II | 3 | IS 284L or equivalent | F, W, Sp |

\* It is recommended that all System & Network Track students take IS 289R as a capstone to this track. Must take two consecutive semesters, starting in

**Database Track**

|         |                                    |   |                      |          |
|---------|------------------------------------|---|----------------------|----------|
| IS 351  | Advanced Data Files and Data Bases | 3 | IS 350 or equivalent | F, W, Sp |
| IS 495R | Independent Study (Certification)  | 3 | IS 351 or equivalent | F, W, Sp |

**Requirements IV – Fundamental skill - Select one fundamental from the following (18 credits)**

|  |  |   |  |  |
|--|--|---|--|--|
| <p><b>Accounting</b><br/>Must take:<br/>Acct 201 ____ (3)f,w,sp<br/>Acct 203 ____ (3)f,w,sp<br/><br/>Plus 12 credits from the following list of Acct. courses:<br/>Acct 301 ____ (3) f<br/>Acct 302 ____ (3) w<br/>Acct 312 ____ (3) f<br/>Acct 321 ____ (3) w<br/>Acct 356 ____ (3) sp<br/>Acct 365 ____ (3) sp<br/>Acct 386 ____ (3) w</p> | <p><b>Business</b><br/>Must take:<br/>Econ 200 ____ (3) f,w,sp<br/>Econ 201 ____ (3) f,w,sp<br/>Acct 201 ____ (3) f,w,sp<br/>Acct 203 ____ (3) f,w,sp<br/><br/>Must complete 3 of the above courses before registering into the following two courses.<br/>Busm 242 ____ (3) f,w,sp<br/>Busm 300 ____ (3) f,w,sp</p> | <p><b>Communications</b><br/>Must take:<br/>ICS 290 ____ (3) f,w,sp<br/>Comm 360 ____ (3) w<br/><br/>Plus 12 credits from the following list of courses: *prereq.<br/>Comm 110 ____ (3) f,w,sp*<br/>Comm 280 ____ (3) f<br/>Comm 310 ____ (3) w<br/>Comm 353 ____ (3) f<br/>Comm 454 ____ (3) f*<br/>ICS 401C ____ (3) f even</p> | <p><b>Economics</b><br/>Must take:<br/>Acct 201 ____ (3) f,w,sp<br/>Econ 200 ____ (3) f,w,sp<br/>Econ 201 ____ (3) f,w,sp<br/><br/>Plus 9 credits from the following list of Econ courses:<br/>Econ 300 ____ (3) f<br/>Econ 301 ____ (3) w<br/>Econ 350 ____ (3) w,sp<br/>Econ 353 ____ (3) sp<br/>Econ 358 ____ (3) f</p> | <p><b>HTM</b><br/>Must take:<br/>HTM 133 ____ (3)<br/><br/>Plus 15 credits from the following list of courses:<br/>HTM 230 ____ (3)<br/>HTM 270 ____ (3)<br/>HTM 275 ____ (3)<br/>HTM 380 ____ (3)<br/>HTM 399R ____ (3)<br/>HTM 255 ____ (3)<br/>HTM 351 ____ (3)<br/>BUSM 327 ____ (3)</p> |
|--|--|---|--|--|

Academic Advisor/ date

Revised 11/6/03, effective F2003ka

IS Dept Chair/ date

All information on this sheet is subject to change. Please check with your Academic Advisor periodically to make sure no important information

