

# SMU ENGINEERING

## 2009-2010 BS Computer Science Degree Plan

|      |       |        |                |
|------|-------|--------|----------------|
| Last | First | Middle | SMU Student ID |
|------|-------|--------|----------------|

|                |              |         |
|----------------|--------------|---------|
| Dallas Address | Phone Number | Advisor |
|----------------|--------------|---------|

### General Education Curriculum (GEC): From fall 2009 through summer 2010

| Courses                                                       | Hours     | Semester & Year | Grade |
|---------------------------------------------------------------|-----------|-----------------|-------|
| ENGL 1301 – Written English I                                 | 3         |                 |       |
| ENGL 1302 – Written English II                                | 3         |                 |       |
| Perspectives <sup>†</sup> – Arts                              |           |                 |       |
| Perspectives <sup>†</sup> – Literature                        |           |                 |       |
| Perspectives <sup>†</sup> – Religious & Philosophical Thought |           |                 |       |
| Perspectives <sup>†</sup> – History                           |           |                 |       |
| Perspectives <sup>†</sup> – Politics & Economics              |           |                 |       |
| Perspectives <sup>†</sup> – Behavioral Sciences               |           |                 |       |
| Cultural Formations                                           | 3         |                 |       |
| Cultural Formations                                           | 3         |                 |       |
| Human Diversity requirement fulfilled by:                     | *****     |                 |       |
| Wellness I                                                    | 1         |                 |       |
| Wellness II                                                   | 1         |                 |       |
| <b>TOTAL</b>                                                  | <b>23</b> |                 |       |

### MAJOR

| Courses                                                         | Hours     | Semester & Year | Grade |
|-----------------------------------------------------------------|-----------|-----------------|-------|
| CSE 1341 – Principles of Computer Science I                     | 3         |                 |       |
| CSE 1342 – Programming Concepts                                 | 3         |                 |       |
| CSE 2240 – Assembly Language Programming & Machine Organization | 2         |                 |       |
| CSE 2341 – Principles of Computer Science II                    | 3         |                 |       |
| CSE 3342 – Programming Languages                                | 3         |                 |       |
| CSE 3345 – Graphical User Interface Design and Implementation   | 3         |                 |       |
| CSE 3353 – Fundamentals of Algorithms                           | 3         |                 |       |
| CSE 3330 – Database Concepts                                    | 3         |                 |       |
| CSE 3381 – Digital Logic Design                                 | 3         |                 |       |
| CSE 4344 – Computer Networks and Distributed Systems            | 3         |                 |       |
| CSE 4345 – Software Engineering Principles                      | 3         |                 |       |
| CSE 4381 – Digital Computer Design                              | 3         |                 |       |
| CSE 5343 – Operating Systems & System Software                  | 3         |                 |       |
| <b>TOTAL</b>                                                    | <b>38</b> |                 |       |

### MAJOR TRACKS

| Courses                                           | Hours     | Semester & Year | Grade |
|---------------------------------------------------|-----------|-----------------|-------|
| <b>Research Track</b>                             | <b>12</b> |                 |       |
| CSE 4346 – Software Engineering Design Project    | 3         |                 |       |
| CSE 5350 – Algorithm Engineering                  | 3         |                 |       |
| CSE 4397 – Research Experience for Undergraduates | 3         |                 |       |
| Research Track Elective                           | <b>3</b>  |                 |       |
| <b>Security Track</b>                             | <b>12</b> |                 |       |
| CSE 4346 – Software Engineering Design Project    | 3         |                 |       |
| CSE 5339 – Computer System Security               | 3         |                 |       |
| CSE 5349 – Data and Network Security              | 3         |                 |       |
| Security Track Elective                           | <b>3</b>  |                 |       |
| <b>General Track</b>                              | <b>12</b> |                 |       |
| CSE 4346 – Software Engineering Design Project    | 3         |                 |       |
| AME <sup>2</sup>                                  | 3         |                 |       |
| AME <sup>2</sup>                                  | 3         |                 |       |
| AME <sup>2</sup>                                  | 3         |                 |       |

| <b>Game Development Track<sup>5</sup></b>           | <b>16</b>    |  |  |
|-----------------------------------------------------|--------------|--|--|
| HGAM 5201 - Game Study I                            | 2            |  |  |
| HGAM 5202 - Game Study II                           | 2            |  |  |
| HGAM 5311 - Software Development for Games I        | 3            |  |  |
| HGAM 5312 - Software Development for Games II       | 3            |  |  |
| HGAM 5221 - Mathematical Methods of Game Physics I  | 2            |  |  |
| HGAM 5222 - Mathematical Methods of Game Physics II | 2            |  |  |
| HGAM 5270 - Game Development Pre-Production         | 2            |  |  |
| CSE 4051 – Gaming Project Design                    | 0            |  |  |
| <b>TOTAL</b>                                        | <b>12/16</b> |  |  |

#### Advanced Major Electives<sup>5</sup>

| <b>Courses</b> | <b>Hours</b> | <b>Semester &amp; Year</b> | <b>Grade</b> |
|----------------|--------------|----------------------------|--------------|
| AME            | 3            |                            |              |
| AME            | 3            |                            |              |
| AME            | 3            |                            |              |
| <b>TOTAL</b>   | <b>9</b>     |                            |              |

#### MATHEMATICS & STATISTICS

| <b>Courses</b>                                                                         | <b>Hours</b> | <b>Semester &amp; Year</b> | <b>Grade</b> |
|----------------------------------------------------------------------------------------|--------------|----------------------------|--------------|
| MATH 1337 – Calculus with Analytic Geometry I                                          | 3            |                            |              |
| MATH 1338 – Calculus with Analytic Geometry II                                         | 3            |                            |              |
| CSE 2353 – Discrete Computational Structures                                           | 3            |                            |              |
| MATH 3315 or CSE 3365 – Introduction to Scientific Computing                           | 3            |                            |              |
| MATH 3353 – Introduction to Linear Algebra                                             | 3            |                            |              |
| CSE 4340, STAT 4340/5340 or EMIS 5370 – Statistical Methods for Engineers & Scientists | 3            |                            |              |
| <b>TOTAL</b>                                                                           | <b>18</b>    |                            |              |

#### SCIENCE

| <b>Courses</b>                                   | <b>Hours</b> | <b>Semester &amp; Year</b> | <b>Grade</b> |
|--------------------------------------------------|--------------|----------------------------|--------------|
| PHYS 1303 – Introductory Mechanics               | 3            |                            |              |
| PHYS 1304 – Introductory Electricity & Magnetism | 3            |                            |              |
| PHYS 1105 – General Physics Laboratory I         | 1            |                            |              |
| PHYS 1106 – General Physics Laboratory II        | 1            |                            |              |
| Science Elective <sup>4</sup>                    | 3            |                            |              |
| Science Elective <sup>4</sup>                    | 3            |                            |              |
| <b>TOTAL</b>                                     | <b>14</b>    |                            |              |

#### LEADERSHIP/BROADENING COURSES

| <b>Courses</b>                         | <b>Hours</b> | <b>Semester &amp; Year</b> | <b>Grade</b> |
|----------------------------------------|--------------|----------------------------|--------------|
| CSE 4360 – Technical Entrepreneurship  | 3            |                            |              |
| EMIS 3308 – Engineering Management     | 3            |                            |              |
| ENCE 3302 – Engineering Communications | 3            |                            |              |
| <b>TOTAL</b>                           | <b>9</b>     |                            |              |

**Total TCH:** \_\_\_\_\_ **(Minimum 123)**

**White Degree Plan** (For advising ONLY!)

**Blue Degree Plan** (For graduating seniors ONLY: Due at the beginning of the graduating semester.)

Advisor \_\_\_\_\_ Date \_\_\_\_\_

Dept. Chair or Associate Chair \_\_\_\_\_ Date \_\_\_\_\_

Assistant Dean \_\_\_\_\_ Date \_\_\_\_\_

<sup>1</sup>Engineering majors are required to take 9 hours of Perspectives and 6 hours of Cultural Formations, or 12 hours of Perspectives and 3 hours of Cultural Formations for a total of 15 hours. One of the selections for Perspectives or Cultural Formations must satisfy the Human Diversity Co-Requirement.

<sup>2</sup>AME to be chosen with consent of advisor

<sup>3</sup>The free electives must be approved by the advisor.

<sup>4</sup>To be chosen from ANTH 2315, ANTH 2363, BIOL 1401, BIOL 1402, CHEM 1113, CHEM 1114, CHEM 1303, CHEM 1304, CHEM 1307, CHEM 1308, GEOL 1301, GEOL 1305, GEOL 1307, GEOL 1308, GEOL 1313, and PHYS 3305

<sup>5</sup>Game Track Students are will use three hours of gaming courses as Advanced Major Electives