

# SMU ENGINEERING

## 2008-09 BS Computer Science Degree Plan Bioinformatics Track

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Last First Middle SMU Student ID

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Dallas Address Phone Number Advisor

### General Education Curriculum (GEC): From Fall 2008 through summer 2009

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

### MAJOR

Courses	Hours	Semester & Year	Grade
CSE 1340 – Introduction to Computing Concepts	3		
CSE 1341 – Principles of Computer Science I	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 3358 – Data Structures	3		
CSE 3381 – Digital Logic Design	3		
CSE 4344 – Computer Networks and Distributed Systems	3		
CSE 4345 – Software Engineering Principles	3		
CSE 4346 – Software Engineering Design Project	3		
CSE 4381 – Digital Computer Design	3		
CSE 5343 – Operating Systems & System Software	3		
AME <sup>2</sup>	3		
<b>TOTAL</b>	<b>44</b>		

### BIOINFORMATICS TRACK

Courses	Hours	Semester & Year	Grade
CSE 5331 – Introduction to Data Mining	3		
CSE 5335 – Introduction to Bioinformatics	3		
BIOL 5305 - Genomics and Bioinformatics	3		
<b>TOTAL</b>	<b>9</b>		

## MATHEMATICS & STATISTICS

Courses	Hours	Semester & Year	Grade
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		
STAT 4340/5340, CSE 4340 or EMIS 5370 – Statistical Methods for Engineers & Scientists	3		
<b>TOTAL</b>	<b>18</b>		

## SCIENCE

Courses	Hours	Semester & Year	Grade
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		
CHEM 1303 – General Chemistry I	3		
CHEM 1113 – General Chemistry Laboratory I	1		
BIOL 1401 – Introductory Biology I	4		
BIOL 3304 – Genetics	3		
<b>TOTAL</b>	<b>19</b>		

## LEADERSHIP/BROADENING COURSES

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

Total TCH: \_\_\_\_\_ (Minimum 122)

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

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

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Advisor Date

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Dept. Chair or Associate Chair Date

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Assistant Dean Date

<sup>1</sup>CS Bioinformatics Track 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