

BACHELOR OF SCIENCE IN COMPUTATIONAL MATHEMATICS

Stu ID: _____
Name: _____
Major: Computational Mathematics - BS
Minor: _____

Date: _____
Advisor: _____
Catalog: 2017-2018
Ant Grad: _____

MAJOR COURSES

14 courses; Minimum 30 credits required; 34 credits must be from SU

CSC54-184	Computer Science I		
CSC54-284	Computer Science II		
CSC54-384	Discrete Mathematics		
CSC54-394	Computer Organization		
CSC54-454	Algorithms		
MAT52-154	Calculus I		
MAT52-254	Calculus II		
MAT52-354	Calculus III		
MAT52-674	Linear Algebra		
MAT52-754	Differential Equations		

Select two courses from the following:

CSC54-414	Operations Research		
CSC54-514	Database Management		
CSC54-524	Introduction to Numerical Analysis		
MAT52-574	Probability and Mathematical Studies		

Select one additional course in MAT or CSC, 300 level or higher (3-4 cr each)

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Select one of the following:

MAT52-894	Senior Seminar in Math Modeling		
CSC54-894	Senior Seminar in Software Engineering		
	Math Field Test		

**Statistics (52-114) cannot be used to satisfy any MAT major or minor courses.

B.S. Core Courses:

BIO50-123	Living Systems		
BIO50-121	Investigation into Living Systems		
BIO50-133	Molecular and Population Genetics		
BIO50-131	Investigation into Genetics		
CHE51-153 or 143	Principles of General Chemistry		
CHE51-151 or 141	Chemical Methods and Techniques Lab		
CHE51-163	Chemical Kinetics & Equilibrium		
CHE51-161	Chemical Kinetics & Equilibrium Lab		
MAT52-154	Calculus I	MAJOR	0
PHY53-154	Fundamentals of Physics I		
PHY53-164	Fundamentals of Physics II		

Select one from the following:

MAT52-114	Introduction to Statistics		
MAT52-254	Calculus II	MAJOR	0
CSC54-184	Computer Science I		

University Electives and/or Minor (optional):

GENERAL EDUCATION REQUIREMENTS

At least 30 total credits required, minimum 3 credits required per course

General Education Part I

First Year/Adv. Entry Seminar:

UST05-014 or UST05-214			
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Foreign Language (3 sem.)

Social Justice Course (may double count with any requirement):

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2 different FRAs:

Total Earned Credits:	0
Total Southwestern Credits:	
Total Major Credits:	0
Total Gen Ed Credits:	0

Exploration & Breadth - Gen Ed Part II

Six total courses

MAT and CSC major and elective courses cannot be used to satisfy Exploration & Breadth requirements.

Select one course from each of the four following areas:

Humanities:

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Natural Sciences:

PHY53-154	Fundamentals of Physics I	BS Core	0
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Social Sciences:

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Fine Arts:

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Select two additional courses from the four areas listed above.

Courses must be from different areas and from different subjects from above courses:

*Public Speaking, College Writing and Creative Writing courses may not count in Exploration & Breadth

A "C" average on all work attempted is required for graduation. No grade below "C-" may be counted toward the major or minor. At least 127 credits are required to earn a degree at Southwestern; of these, 64 credits must be completed in residence, including the last 32 credits. No more than 56 credit hours may be counted in one subject area. A major requires at least 30 credits, more than 50% upper-level, and a minor (optional) requires at least 18 credits (at least 12 upper-level). 60% of the major credits and 12 minor credits must be completed in residence at SU. With the exception of FRAs and the FY/AES seminar, all gen.ed. requirements require a minimum of 3 credits, including Fine Arts Performance. For a complete list of graduation requirements, see catalog.

Graduation Requirements:

Minimum of 127 credits: _____
 Cumulative GPA > 2.0 _____
 GPA > 2.0 for Major, Minor and/or Areas of Concentration _____
 Less than C- grade in major/minor/core? _____
 At least 64 credits completed at Southwestern* _____
 No more than 56 credits of any 5 digit prefix** _____
 Major credits completed (min 30 required) _____
 60% of Major courses completed at Southwestern (34cr) _____
 50% of Major courses are upper level (28cr) _____

Notes:

Minor (optional):

Minimum 18 credits _____

Minimum 12 upper level credits _____

Minimum of 12 credits taken at Southwestern _____

Minimum 2.0 minor courses CGPA _____

Other:

Degree Audit Completed (Due one year before grad date) _____

Grad Application Submitted (Due start of final semester) _____