

# Bachelor of Science Computational Mathematics (2021-2023)

Student name: \_\_\_\_\_

## Major courses

15 courses; 35 credits must be from SU  
Must earn a C- or better in all major courses.

Course	Course Name	Grade	Credit
CSC54-184	Computer Science I	_____	_____
CSC54-284	Computer Science II	_____	_____
CSC54-384	Discrete Mathematics	_____	_____
CSC54-394	Computer Organization	_____	_____
CSC54-454	Algorithms	_____	_____
MAT52-164	Modern Calculus I	_____	_____
MAT52-264	Modern Calculus II	_____	_____
MAT52-364	Modern Calculus III	_____	_____
MAT52-674	Linear Algebra	_____	_____
MAT52-754	Differential Equations	_____	_____
<i>Select two courses from the following:</i>			
_____	_____	_____	_____
CSC54-414	Operations Research	_____	_____
CSC54-514	Database Management Introduction to	_____	_____
CSC54-524	Numerical Analysis	_____	_____
MAT52-574	Probability and Mathematical Statistics	_____	_____
<i>Select two additional approved upper level courses in Math or Computer Science*:</i>			
_____	_____	_____	_____
*Any 3 or 4 credit CSC or MAT course at or above the 300 level will serve as an approved course. PHY53-454 Math Methods in Physical Science II may also be taken as an approved, upper level course.			
<i>Select one of the following Capstone options:</i>			
_____	_____	_____	_____
MAT52-894	Senior Seminar in Math Modeling	_____	_____
CSC54-894	Senior Seminar in Software Engineering	_____	_____

Total number of credits counting in the major (minimum 30 credits required): \_\_\_\_\_

## Required Supporting Courses:

Courses in this section are not counted in the 30 credit minimum for the major.  
Courses in this section may be used in the Exploration and Breadth section.

		Grade	Credit
CHE51-103/101	General Chemistry I/Chemical Methods & Techniques I	_____	_____
PHY53-154	Fundamentals of Physics I	_____	_____
<i>Choose one Introductory Biology course from the following:</i>			
BIO50-123/121	Living Systems/Investigation Into Living Systems	_____	_____
BIO50-133-131	Molecular & Population Genetics/Investigation Into Genetics	_____	_____
<i>Choose one additional course from the following:</i>			
_____	_____	_____	_____
BIO50-123/121	Living Systems/Investigation Into Living Systems**	_____	_____
BIO50-133-131	Molecular & Population Genetics/Investigation Into Genetics**	_____	_____
CHE51-203/201	General Chemistry II/Chemical Methods & Techniques II	_____	_____
MAT52-364	Modern Calculus III	_____	_____
PHY53-164	Fundamentals of Physics II	_____	_____
PHY53-404	Electronics	_____	_____
**The same course cannot be used to satisfy more than one area within the required supporting course section.			

Total number of credits from Required Supporting Courses: \_\_\_\_\_

## General Education Requirements

	Grade	Credit
<i>Part I</i>		
UST05-014/214    First Year or Advanced Entry Seminar	_____	_____
_____    Semester #1 of Foreign Language:	_____	_____
_____    Semester #2 of Foreign Language:	_____	_____
_____    Semester #3 of Foreign Language:	_____	_____
_____    Social Justice course:	_____	_____
_____    Fitness/Recreational Activity course #1:	_____	_____
_____    Fitness/Recreational Activity course #2: (must be different from FRA topic #1)	_____	_____
<i>Part II</i>		
<i>Exploration and Breadth - 6 courses</i>		
CSC54-XXX and MAT52-XXX courses cannot be used to satisfy E&B requirements. Additionally, any other course contributing to Computational Mathematics which is used to satisfy a major requirement cannot be used in the E&B section.		
*Public Speaking, College Writing & Creative Writing courses cannot count in E&B.		
	<b>Grade</b>	<b>Credit</b>
_____    Take one Humanities course:	_____	_____
_____    Take one Natural Science course:	_____	_____
_____    Take one Social Science course:	_____	_____
_____    Take one Fine Arts course:	_____	_____
Take one additional course from two of the four areas listed above. Neither course may come from the department (3 digit prefix) used in the four areas above. EX: If you took PSY33-104 Principles of Psychology as a social science, you may not select another PSY course in the below section.		
	<b>Grade</b>	<b>Credit</b>
_____    Course #1:	_____	_____
_____    Course #2:	_____	_____

Total number of credits counting only in the Gen Ed section (30 credit minimum required):

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## University electives

	Grade	Credit
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Total number of university electives/minor credits:

Total number of credits from a minor (use minor template to determine correct credit count). Enter credit amount here:

\*Minors are optional.

Total number of earned credits counting in major, general education and university elective/minor areas:

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## University Graduation Requirements:

Students must earn a minimum of 127 earned credits to earn a Bachelor's degree; a minimum of 157 credits is required for dual degrees.

Cumulative GPA must be greater than a 2.0.

Major/Area of Concentration must have a GPA > 2.0.

All grades in a major/minor/core/required supporting courses/certification areas must be a C- or higher. Some majors/minors require higher grades.

At least 64 credits must be completed at Southwestern.

No more than 56 credits may be earned from any 5 digit prefix (except Art, Education and Theatre majors). See catalog for full rules.

60% of Major courses must be completed at Southwestern.

Majors must have a minimum of 30 credits.

General Education area must have a minimum of 30 credits.

No transfer credits taken outside of SU in final 32 credit hours without approval from the Registrar's Office (except for an approved Study Abroad program).

A limit of 1 FRA may be taken as a university elective and counted towards graduation requirements. Any additional FRA's, taken as a university elective, will be deducted from total earned credit.