

**Program: Computer Science Bachelor of Science**

**Total Credits: 120**

**Catalog: Fall 2023 to Summer 2024**



## Four Year Graduation Planner

- This guide is intended to show a recommended fulltime four-year pathway to earning a bachelor degree.
- It is only a sample; there may be other pathways that lead to completion of the degree in four years.
- It is NOT intended to take the place of meetings with advisors or intended to take the place of the Degree Audit System (DARs).

**Key to tables below. More details on final page.**

Core: fulfills required course for major	Elective: student selected course credits for major	GELS: General Education Liberal Studies Goal Area
LS: Liberal Studies	Pre/Premajor: Premajor foundation course	RIGR: Racial Issues Graduation Requirement

### First Year

Course	Requirement Met	Semester Offered	Credits	Credit Hour Total
MATH 115 College Algebra	Premajor/GELS Goal 4	Fall, Spring, Summer	4	
ICS 140 Computational Thinking or ICS 265 C programming	Premajor	Fall, Spring, Summer	4	
General Education Writing I	GELS Goal 1	Fall, Spring, Summer	3-5	
METR 101 Your Academic Journey	GELS elective	Fall, Spring	3	14-16
MATH 120 Precalculus	Premajor	Fall, Spring, Summer	4	
MATH 215 Discrete Math	Premajor	Fall, Spring, Summer	4	
ICS 141 Problem Solving with Programming	Premajor	Fall, Spring, Summer	4	
General Education Writing II	GELS Goal 1	Fall, Spring, Summer	3	
General Education Communication	GELS Goal 1	Fall, Spring, Summer	3	18
First Year Total				32-34

### Second Year

Course	Requirement Met	Semester Offered	Credits	Credit Hour Total
MATH 210 Calculus I	Premajor/GELS Goal 4	Fall, Spring, Summer	4	
ICS 240 Introduction to Data Structures	Premajor	Fall, Spring, Summer	4	

## Continued

General Education	GELS Goal 3	Fall, Spring, Summer	3-4	
General Education History/Social/Behavior	GELS Goal 5	Fall, Spring, Summer	3-4	14-16
ICS 232 Computer Organization	Premajor	Fall, Spring, Summer	4	
ICS 311 Database Management Systems	Core	Fall, Spring, Summer	4	
General Education	GELS Goal 10	Fall, Spring, Summer	3-4	
General Education	GELS Goal 3	Fall, Spring, Summer	3-4	14-16
Second Year Total				28-32

## Third Year

Course	Requirement Met	Semester Offered	Credits	Credit Hour Total
ICS 340 Algorithms and Data Structures	Core	Fall, Spring, Summer	4	
ICS 365 Organization of Programming Languages	Core	Fall, Spring, Summer	4	
General Education	GELS Goal 6 and RIGR	Fall, Spring, Summer	3-4	
General Education	GELS Goal 5, 7, and LS	Fall, Spring, Summer	3-4	14-16
ICS 372 Object-Oriented Design and Implementation	Core	Fall, Spring, Summer	4	
ICS 440 Parallel and Distributed Algorithms	Core	Fall, Spring, Summer	4	
General Education	GELS Goal 6 and 8	Fall, Spring, Summer	3-4	11-12
Third Year Total				25-28

## Fourth Year

Course	Requirement Met	Semester Offered	Credits	Credit Hour Total
ICS 462 Operating Systems	Core	Fall, Spring, Summer	4	
ICS 460 Networks and Security	Core	Fall, Spring, Summer	4	
Select Major Elective	Elective	varies	4	
General Education	GELS Goal 9 and LS	Fall, Spring, Summer	4	16
ICS 499 Software Engineering and Capstone Project	Core	Fall, Spring, Summer	4	

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Select Major Elective	Elective	varies	4	
General Education	GELS Goal 2	varies	4	12
Fourth Year Total				28

## Academic and graduation requirements

### Course requirements

**Credit requirements: 120 total credits**

- 40 upper-division credits (courses at community colleges are all lower-division courses, so they do not count toward this requirement).
- 30 credits completed at Metro State University.
- 40 general education credits.
- 8 upper-division liberal studies credits.
- 3 [racial issues graduation requirement \(RIGR\)](#) credits.
- All credit requirements for the major.
- Elective credits (if you are short of the 120 total credits required for graduation).

### GELS: General education/liberal studies requirements (48 credits)

- [Minnesota Transfer Curriculum](#): 40 credits. Goal areas 1–10 are met by Minnesota community college A.A. degree. They are *not* met by A.S. or A.A.S degrees or community colleges outside of Minnesota.
- [Liberal studies](#): 8 credits.
  - These credits must be:
    - Upper-division general education courses (300 to 500 level).
    - Designated as a liberal studies (LS) course.
  - These credits are not:
    - completed by AA, AAS or AS degrees or the Minnesota Transfer Curriculum.
    - met by any community college course (all community college courses are lower division, including courses that meet major requirements).

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### **Racial Issues Graduation Requirement (RIGR) and transfer coursework**

All new or readmitted undergraduate students admitted fall 2016 or later must complete an approved learning experience (at least 3 credits) with a significant focus on race and racism to graduate with a bachelor's degree from the university. Upon review, an approved prior learning, independent study, theory seminar or transfer course from other accredited institutions may also be used to meet this graduation requirement.

### **DARS: Your degree audit report**

The Degree Audit report is a degree planning tool for students that includes both transfer and Metropolitan State coursework. You can access your Degree Audit report in [eServices](#) under "Academic Records." The report includes:

- How your transfer credits have been accepted and applied to General Education and Liberal Studies, including the Minnesota Transfer Curriculum.
- All the requirements needed to complete a specific program.
- Courses that have already been completed, grades received and hours earned, both at Metropolitan State and in transfer.
- Transfer courses that have been made equivalent to Metropolitan State University courses.
- Exceptions to degree and program requirements that have been processed.
- What is still needed to complete a program, with a list of courses that will satisfy each requirement.



**MINNESOTA STATE**

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