

Program: Cybersecurity Bachelor of Science

Total Credits: 120

Catalog: Fall 2024 to Summer 2025



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, or, MATH 120 Precalculus | GELS Goal 4 | Fall, Spring, Summer | 4 | |
| General Education Writing I and Public Speaking | GELS Goal 1 | Fall, Spring, Summer | 6 | |
| General Education | GELS Goal 5, 10 | Fall, Spring, Summer | 3-4 | |
| MATH 215 Discrete Math | Premajor | Fall, Spring, Summer | 4 | |
| ICS 140 Computational Thinking | Premajor | Fall, Spring, Summer | 4 | |
| General Education | GELS Goal 3, 10 | Fall, Spring, Summer | 4 | |
| General Education Communication | GELS Goal 1 | Fall, Spring, Summer | 3-4 | 15-16 |
| First Year Total | | | | 28-30 |

Second Year

| Course | Requirement Met | Semester Offered | Credits | Credit Hour Total |
|---|----------------------|----------------------|---------|-------------------|
| ICS 265 C Programming | Premajor | Fall, Spring, Summer | 4 | |
| CFS 262 Computer and Operating Systems Fundamentals I | Premajor | Fall, Spring, Summer | 4 | |
| General Education | GELS Goal 6, 8, RIGR | Fall, Spring, Summer | 3-4 | |

Continued

| | | | | |
|--|-----------------|----------------------|-----|-------|
| General Education | GELS Goal 5, 7 | Fall, Spring, Summer | 3-4 | 14-16 |
| CFS 264 Computer and Operating Systems Fundamentals II | Premajor | Fall, Spring, Summer | 4 | |
| STAT 201 Statistics I | Premajor | Fall, Spring, Summer | 3-4 | |
| General Education | GELS Goal 3, 10 | Fall, Spring, Summer | 3-4 | 14-16 |
| Second Year Total | | | | 28-32 |

Third Year

| Course | Requirement Met | Semester Offered | Credits | Credit Hour Total |
|--|--------------------|----------------------|---------|-------------------|
| ICS 311 Database Management Systems | Core | Fall, Spring, Summer | 4 | |
| CYBR 362 Networking Protocols and Analysis | Core | Fall, Spring | 4 | |
| General Education | GELS Goal 6, 9, UD | Fall, Spring, Summer | 3-4 | |
| Select General Education | GELS or Elective | Fall, Spring, Summer | 3-4 | 15-16 |
| CYBR 332 Computer Security | Core | Fall, Spring, Summer | 4 | |
| CFS 280 Introduction to Computer Forensics | Core | Fall, Spring | 4 | |
| ICS 232 Computer Organization | Core | Fall, Spring, Summer | 4 | |
| General Education | GELS Goal 6, UD | Fall, Spring, Summer | 3-4 | 15-16 |
| Third Year Total | | | | 29-32 |

Fourth Year

| Course | Requirement Met | Semester Offered | Credits | Credit Hour Total |
|---|--------------------|----------------------|---------|-------------------|
| CYBR 432 Cryptography for Cybersecurity Practitioners | Core | Fall, Spring, Summer | 4 | |
| CYBR 442 Cyber Operations | Core | Fall, Spring, Summer | 4 | |
| CYBR 498 Cybersecurity Capstone I Concepts, Research and Planning | Core | Fall, Spring | 2 | |
| Select Major Elective or GELS | Elective or GELS | Fall, Spring, Summer | 2-4 | |
| General Education | GELS Goal 5, 8, UD | Fall, Spring, Summer | 4 | 14-16 |
| CYBR 412 Vulnerability Assessment and Penetration Testing | Core | Fall, Spring, Summer | 4 | |
| CYBR 499 Capstone II | Core | Fall, Spring | 4 | |

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| | | | | |
|-----------------------|--------------------|----------------------|---|-------|
| Select Major Elective | Core Elective | Fall, Spring, Summer | 4 | |
| General Education | GELS Goal 5, 7, UD | Fall, Spring, Summer | 4 | 16 |
| Fourth Year Total | | | | 28-30 |

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 Metropolitan 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)

Continued

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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