

# CYBERSECURITY (BS) MAJOR

## COMPUTER SCIENCE AND CYBERSECURITY DEPARTMENT

### MAJOR CHECKLIST FALL 2020- SUMMER 2021

*This checklist aids in placement of students into their major coursework and documents the department evaluation of transferred credit and course waivers, based on coursework listed on the Degree Audit Report (DARs). A student must complete General Education and Liberal Studies (GELS) along with other graduation requirements for graduation – refer to your DARs.*

*Official admission to this major program and review of prior course credentials is done directly through the Computer Science and Cybersecurity (CSC) Department. Contact information is noted at the bottom of this checklist.*

Student Name	Metro State ID #	Date

### PRE-MAJOR FOUNDATION COURSES: 30 CREDITS

*In order to declare a Cybersecurity major, students are required to complete the following foundation courses listed with a grade of C- or better:*

- *Minimum cumulative GPA of 2.5 for ICS 141 and MATH 215 or transfer equivalents*
- *Demonstrated competency in the Java programming language either through completion of coursework (e.g. ICS 141) or passing a Java competency exam*
- *Successful completion of General Education Goal I Writing requirement*

*Students who do not meet the pre-major foundation requirements noted in this section or are on academic probation will not be accepted to the major. Students not accepted to the major will not be allowed to take 400-level courses in the discipline.*

*Note: ICS 251 may be waived with a demonstrated industry experience of 3 years AND with Program Coordinator's permission.*

Course #	Title	Transfer Equivalent Details	Credits	Grade	✓
MATH 115 or MATH 120	College Algebra or Precalculus				
MATH 215	Discrete Math				
ICS 140	Computational Thinking with Programming				
ICS 141	Programming with Objects				

Course #	Title	Transfer Equivalent Details	Credits	Grade	✓
ICS 251	IT Work Skills				
CFS 262	Computer and Operating Systems Fundamentals I				
CFS 264	Computer and Operating Systems Fundamentals II				
STAT 201	Statistics I				

### JAVA COMPETENCY REQUIREMENT

Check box if demonstrated competency in Java either through course work or passing exam.

### WRITING COURSE REQUIREMENT

Check box if General Education Goal I Writing requirement has been successfully completed. Reference DARs to determine which courses fulfill this requirement.

Pending completion of \_\_\_\_\_.

GPA Calculation: A = 4.00, A- = 3.67, B+ = 3.33, B = 3.00, B- = 2.67, C+ = 2.33, C = 2.00, C- = 1.67, D = 1.00, F = 0

### CORE REQUIREMENTS: 32 CREDITS

Once admitted into major the following courses are required.

Course #	Title	Transfer Equivalent Details	Upper Division	Credits	Grade	✓
ICS 232	Computer Organization and Architecture					
ICS 240	Introduction to Data Structures					
ICS 311	Database Management Systems					
CYBR 332	Computer Security					
CYBR 362	Networking Protocols and Analysis					
CYBR 412	Vulnerability Assessment and Penetrating Testing					
CYBR 432	Cryptography for Cybersecurity Practitioners					
CYBR 442	Cyber Operations					

Cybersecurity courses are identical with their cross-listed ICS courses. The following pairs of courses are the same: CYBR 332 = ICS 382; CYBR 412 = ICS 482; CYBR 432 = ICS 483; CYBR 362 = ICS 383; CYBR 442 = ICS 484.

### ELECTIVE REQUIREMENT: 4 CREDITS

A minimum of four credits of elective coursework are required from the list below. The contents of ICS 490 Special Topics in Information and Computer Sciences vary from semester to semester, and may be taken more than once so long as its related to Cybersecurity topic for elective credit.

Cybersecurity courses are identical with their cross-listed ICS courses. The following pairs of courses are the same: CYBR 445 = ICS 487; CYBR 482 = ICS 486. CYBR 445 and ICS 487.

Course #	Title	Transfer Equivalent Details	Upper Division	Credits	Grade	✓
CFS 380	Digital Evidence Analysis					
CFS 484	Computer Laws					
CFS 485	Mobile Device Security and Forensics					
CYBR 445	Cyber Incident Response and Handling					
CYBR 482	Malware Analysis					
ICS 325	Internet Application Development					
ICS 490	Special Topics in Information and Computer Science					
MIS 450	MIS Auditing and Security Controls					

#### CAPSTONE PROJECT OR CYBER RESIDENCY: 4 CREDITS

In the last semester, students will need to complete the 4 credits an integrative cybersecurity capstone project or internship residency. Discuss options with your advisor.

Course #	Title	Credits	Grade	✓
CYBR 498	Cybersecurity Capstone I	1		
CYBR 499	Cybersecurity Capstone II	3		
CYBR 350I	Cybersecurity Individualized Internship			

#### ADDITIONAL NOTES, CREDIT TOTALS OR COMMENTS:

Academic advisor notes:

#### GRADUATION REQUIREMENTS

Below is a summary of residency and graduation requirements for this major and used as an advising tool as you work towards completion. Students are advised to reference their DARs for official graduation requirements.

Major Requirements Checklist	Remaining	In Progress	Completed
40 Major credits			
20 Metro State Major Credits			
32 Upper Division Major (300 or higher)			

University Requirements Checklist	Remaining	In Progress	Completed
120 Total Credits (minimum), and GPA of 2.0 or better			
30 Metro State Credits			
40 Upper Division (300 or higher)			
48 credits GELS + RIGR (See DARs)			

**CONTACT US**

For specific questions about this major program or equivalencies of prior coursework at other institutions, contact the Computer Science and Cybersecurity Department at:

Email: [CSC@metrostate.edu](mailto:CSC@metrostate.edu)      Tel: 651.793.1471      Web: [www.metrostate.edu/csc-department](http://www.metrostate.edu/csc-department)



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This information is available in alternative formats upon request by contacting the Center for Accessibility Resources, [accessibility.resources@metrostate.edu](mailto:accessibility.resources@metrostate.edu) or 651-793-1549. Information is subject to change without notice.

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