# Combined Bachelor's/Master's Degree – College of Computing 2024-2025

### **OVERVIEW**

The Combined Degree Programs of Grand Valley State University's College of Computing are an opportunity to earn two degrees (one B.S., one M.S.) in less time and at less cost than earning each degree separately. A combined degree program allows you to take up to 12 graduate credits as an undergraduate student, at the undergraduate billing rates, and have those credits count for both the undergraduate and graduate degrees.

#### Requirements

You can apply for a combined degree program if you have:

- 3.25 GPA overall
- 60 hours of credit completed or in progress

### **College of Computing Offerings**

- Computer Science / Applied Computer Science
- Computer Science / Cybersecurity
- Computer Science / Data Science and Analytics
- Cybersecurity / Cybersecurity
- Information Systems / Applied Computer Science
- Information Systems / Cybersecurity
- Information Technology / Cybersecurity

#### **College of Computing and Another Department**

• Computer Engineering / Applied Computer Science

## COURSE SUBSTITUTIONS

Undergraduate Course (Title) = Graduate Course (Title)

CIS 330 (Systems Analysis and Design)

= CIS 641 (Systems Analysis and Design)

CIS 333 (Database Management and Implementation)

= CIS 673 (Principles of Database Design)

CIS 335 (Data Mining)

= CIS 635 (Knowledge Discovery and Data Mining)

CIS 337 (Network Systems Management)

= CIS 654 (Computer Networking)

CIS 353 (Database)

= CIS 673 (Principles of Database Design)

CIS 360 (Information Management and Science)

= CIS 660 (Information Management and Science)

CIS 378 (Applied Machine Learning)

= CIS 678 (Machine Learning)

CIS 418 (Secure Software Engineering)

= CIS 518 (Secure Software Engineering)

CIS 430 (Computer and Cyber Forensics)

= CIS 617 (Digital Forensics and Investigations)

CIS 437 (Distributed Computing (4 credits))

= CIS 656 (Distributed Systems)

CIS 450 (IS Project Management)

= CIS 642 (IS Project Management)

CIS 452 (Operating Systems Concepts)

= CIS 656 (Distributed Systems)

CIS 453 (Ethical Hacking)

= CIS 553 (Ethical Hacking)

CIS 455 (Applied Cryptography)

= CIS 555 (Applied Cryptography)

CIS 457 (Data Communications)

= CIS 654 (Computer Networking)

CIS 458 (System Security)

= CIS 616 (Data Security and Privacy)

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2024-2025	
HOW-TO	SUGGESTED SUBSTITUTIONS
Ready to start? Follow these steps:	Each course listed is either a requirement, part of a concentration, or an approved elective.
<ol> <li>Meet with your undergraduate advisor to review which program requirements you still need to complete.</li> </ol>	Computer Science B.S./Applied Computer Science M.S.  • CIS 353/CIS 673  • CIS 452/CIS 656
<ol><li>Check the course substitutions list to see which graduate courses could complete those missing undergraduate requirements.</li></ol>	<ul> <li>CIS 457/CIS 654</li> <li>Computer Science B.S./Cybersecurity M.S.</li> <li>CIS 418/CIS 518</li> </ul>
3. Create a plan of study for your remaining undergraduate and future graduate semesters, indicating which courses you will take, in which semesters, and where a graduate course will replace an undergraduate one.	<ul> <li>CIS 430/CIS 617</li> <li>CIS 453/CIS 553</li> <li>CIS 455/CIS 555</li> <li>CIS 457/CIS 654</li> <li>CIS 458/CIS 616</li> </ul>
<ol> <li>Send your plan of study to your undergraduate advisor and your Graduate Program Director for double-checking and approval.</li> </ol>	Computer Science B.S./Data Science and Analytics M.S.  • CIS 335/CIS 635  • CIS 360/CIS 660  • CIS 378/CIS 678
5. Once approved, begin your application at <a href="https://apply.gvsu.edu/apply/">https://apply.gvsu.edu/apply/</a> . Select "Graduate Degree", your graduate program, and then the combined program. Your "semester of entry" will be the semester you become a full-time graduate student (after finishing your bachelor's degree or completing 12 graduate credits).	Cybersecurity B.S. and M.S.  CIS 337/CIS 654  CIS 418/CIS 518  CIS 430/CIS 617  CIS 453/CIS 553  CIS 455/CIS 555  CIS 458/CIS 616
	Information Systems B.S./Applied Computer Science M.S.
	Information Systems B.S./Cybersecurity M.S.
	• CIS 437/CIS 656

CIS 453/CIS 553CIS 458/CIS 616