



Computer and Information Sciences

Major - Computer Science Cyber Operations

Catalog Year 2025-2026 and Later

Required Computer Science Courses

34 Units

		Units
_____	CIS 377 Intro to Cybersecurity	3
_____	COSC 236 Intro to Computer Science I	4
_____	COSC 237 Intro to Computer Science II	4
_____	COSC 290 Principles of Computer Organization	4
_____	COSC 336 Data Structures & Algorithm Analysis	4
_____	COSC 350 Data Communications & Networking	3
_____	COSC 412 Software Engineering	3
_____	COSC 439 Operating Systems	3
_____	COSC 455 Programing Languages	3
_____	COSC 457 Database Management Systems	3

Required Science Courses (Core 7 and 8)

8 Units

Select 2 lab science courses from the following:		Units
_____	ASTR 261 Intro to Astrophysics	4
_____	BIOL 200 + L Intro to Cell Biology	4
_____	BIOL 206 + L Intro to Ecology/Evolution	4
_____	CHEM 131 + L General Chemistry	4
_____	CHEM 132 + L General Chemistry II	4
_____	GEOL 121 Physical Geology	4
_____	PHYS 241 General Physics I	4
_____	PHYS 242 General Physics II	4

Required Cyber Operation Track Courses

18 Units

		Units
_____	COSC 340 Systems Programming	3
_____	COSC 440 Operating Systems Security	3
_____	COSC 450 Network Security	3
_____	COSC 458 Application Software Security	3
_____	COSC 481 Case Studies	3
_____	COSC 485 Reverse Engineering/Malware Analysis	3

Required Mathematics Courses

15-16 Units

		Units
_____	MATH 263 Discrete Mathematics OR	3
_____	MATH 267 Intro to Abstract Mathematics	4
_____	MATH 273 Calculus I	4
_____	MATH 274 Calculus II	4
_____	MATH 314 Cryptography	3
_____	MATH 330 Intro to Statistical Methods	4

Total Units: 87-88

Required Core Courses

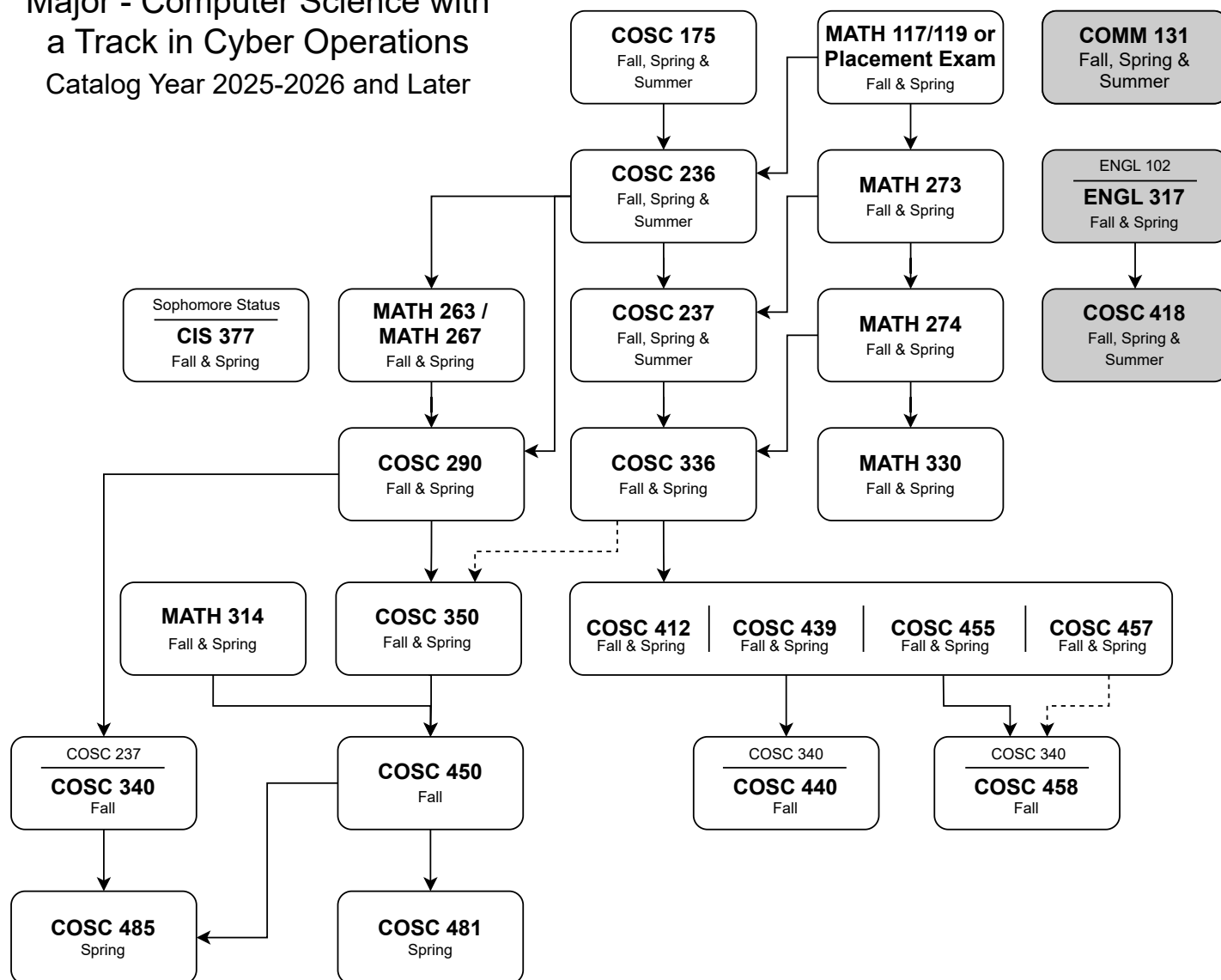
9 Units

		Units
_____	COMM 131 Public Speaking (Core 5)	3
_____	ENGL 317 Writing for Business & Industry (Core 9)	3
_____	COSC 418 Ethical & Societal Concerns CS (Core 14)	3

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Major - Computer Science with a Track in Cyber Operations

Catalog Year 2025-2026 and Later



**All course prerequisites are strictly enforced.*

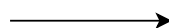
MATH Prerequisites

COURSE	PREREQUISITE
MATH 263	MATH 119, COSC 236
MATH 273	MATH 119
MATH 274	MATH 273
MATH 314	MATH 263, MATH 330, COSC 236
MATH 330	MATH 274

Sophomore Status

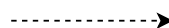
CIS 377

Prerequisite



Course/Status listed above
is also a prerequisite.

Co-Requisite



Find more advising resources at:

<https://www.towson.edu/fcsm/departments/computerinfosci/resources/advising.html>

View Third Attempt / Prerequisite Policy at:

<https://www.towson.edu/fcsm/departments/computerinfosci/resources/>

Visit the CIS Advising Hub in YR 207

Or Email: cisadvising@towson.edu