



Computer and Information Sciences

Major - Information Systems Data Analytics and AI Track

Catalog Year 2026-2027 and Later

Required Information Systems Courses

35 Units

		Units
_____ CIS 211	Fundamentals of Info Sys and Tech	3
_____ COSC 236	Introduction to Computer Science I	4
_____ COSC 237	Introduction to Computer Science II	4
_____ ITEC 231	Fundamentals of Web Technologies	3
_____ CIS 239	Enterprise Systems & Architecture	3
_____ CIS 350	Telecommunications	3
_____ CIS 377	Introduction to Cybersecurity	3
_____ CIS 379	Systems Analysis & Design	3
_____ CIS 435	Human Computer Interaction	3
_____ CIS 458	Organizational Database Management	3
_____ CIS 479	Software Project Management	3

Required Math Courses

9-10 Units

		Units
_____ MATH 231	Basic Statistics	3
_____ MATH 263	Discrete Mathematics	3
_____ MATH 211	Calculus for Applications OR	3
_____ MATH 273	Calculus I	4

Required Core Courses

6 Units

		Units
_____ ENGL 317	Writing for Business & Industry (Core 9)	3
_____ COSC 418	Ethical/Societal Concerns CS (Core 14)	3

Required Data Analytics Track Courses

15-16 Units

		Units
_____ CIS 328	Intro to Data Analytics	3
_____ CIS 334	Data Organization OR	3
_____ COSC 336	Data Structures	4
_____ CIS 428	Text Analytics	3
_____ CIS 368	Intro to Applied AI	3
_____ CIS 468	Applied Data Science & Machine Learning	3

IS Capstone

3 Units

		Units
_____ CIS 475	Information Systems Capstone	3

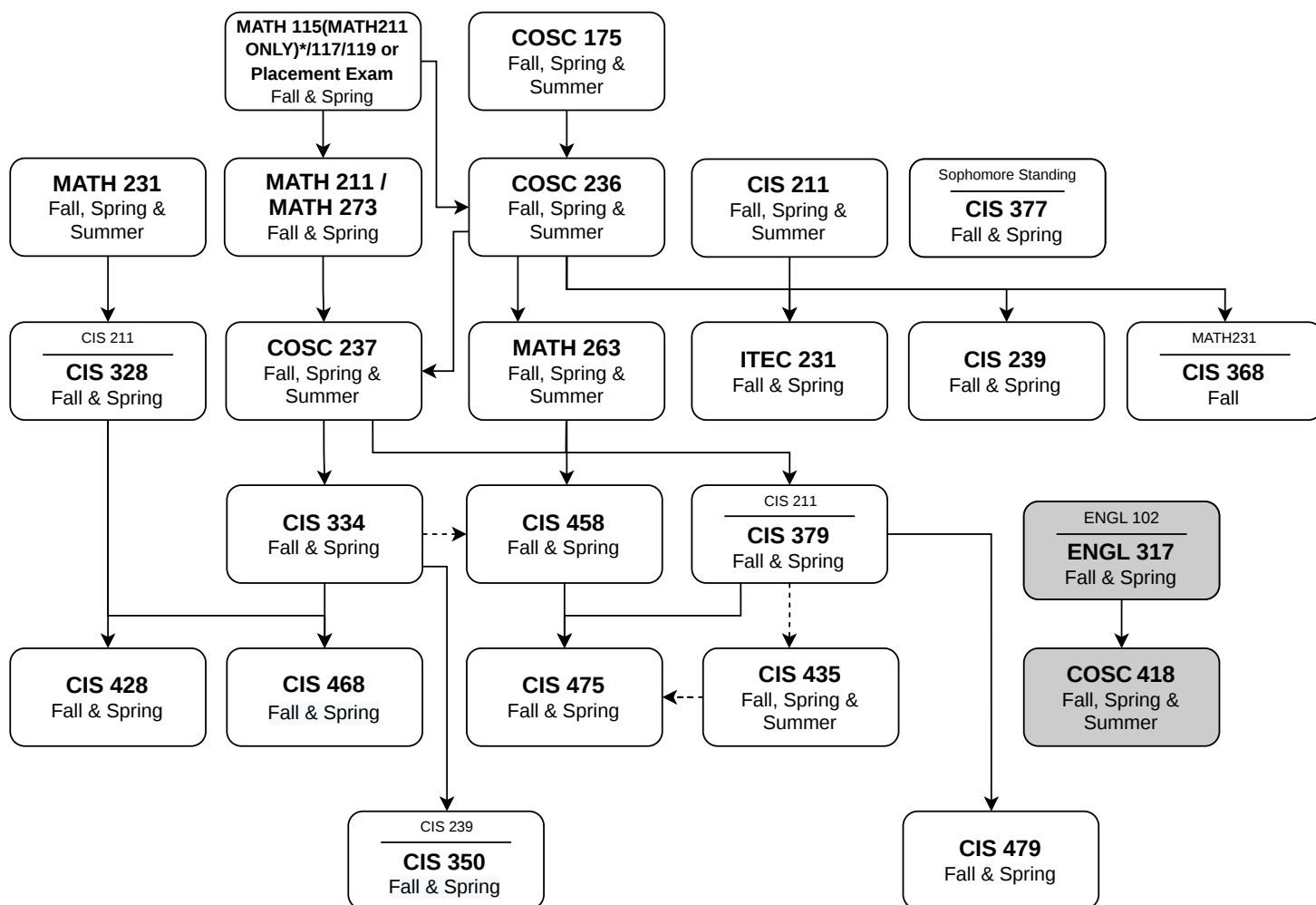
Elective IS Courses

6 Units

		Units
Select 2 courses from the following:		
_____ CIS 265	Visual Basic	3
_____ CIS 397	Internship in IS	3
_____ CIS 426	Gaming Interface Design	3
_____ CIS 433	Selected Topics in IS	3
_____ CIS 436	E-Government	3
_____ CIS 495	Independent Study in IS	3
_____ ITEC 427	Cloud Computing	3
_____ ITEC 336	Legal & Policy Issue in IT	3
_____ CIS 455	Human-Centered AI & Co-Creation	3

Total Units: 74-76

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**MATH115 is only an accepted prerequisite for MATH211, not MATH273*

Elective Prerequisites

Course	Prerequisites	Offered
CIS 265	Programming Experience	Fall, Spring & Summer
CIS 397	CIS 334 or COSC 336, 2.75 GPA, IC	Fall, Spring & Summer
CIS 426	CIS 328 or ITEC 411	Fall
CIS 433	9 units of IS, Instructor Consent	Occasionally
CIS 436	CIS 379	Fall
CIS 495	Senior Standing, Instructor Consent	Occasionally
ITEC 427	ITEC 231	Fall & Spring
CIS 455	CIS 435	Spring

*IC refers to instructor consent

Sophomore Status

CIS 377

Course/Status listed above
is also a prerequisite.

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

**All course prerequisites are strictly enforced.*

