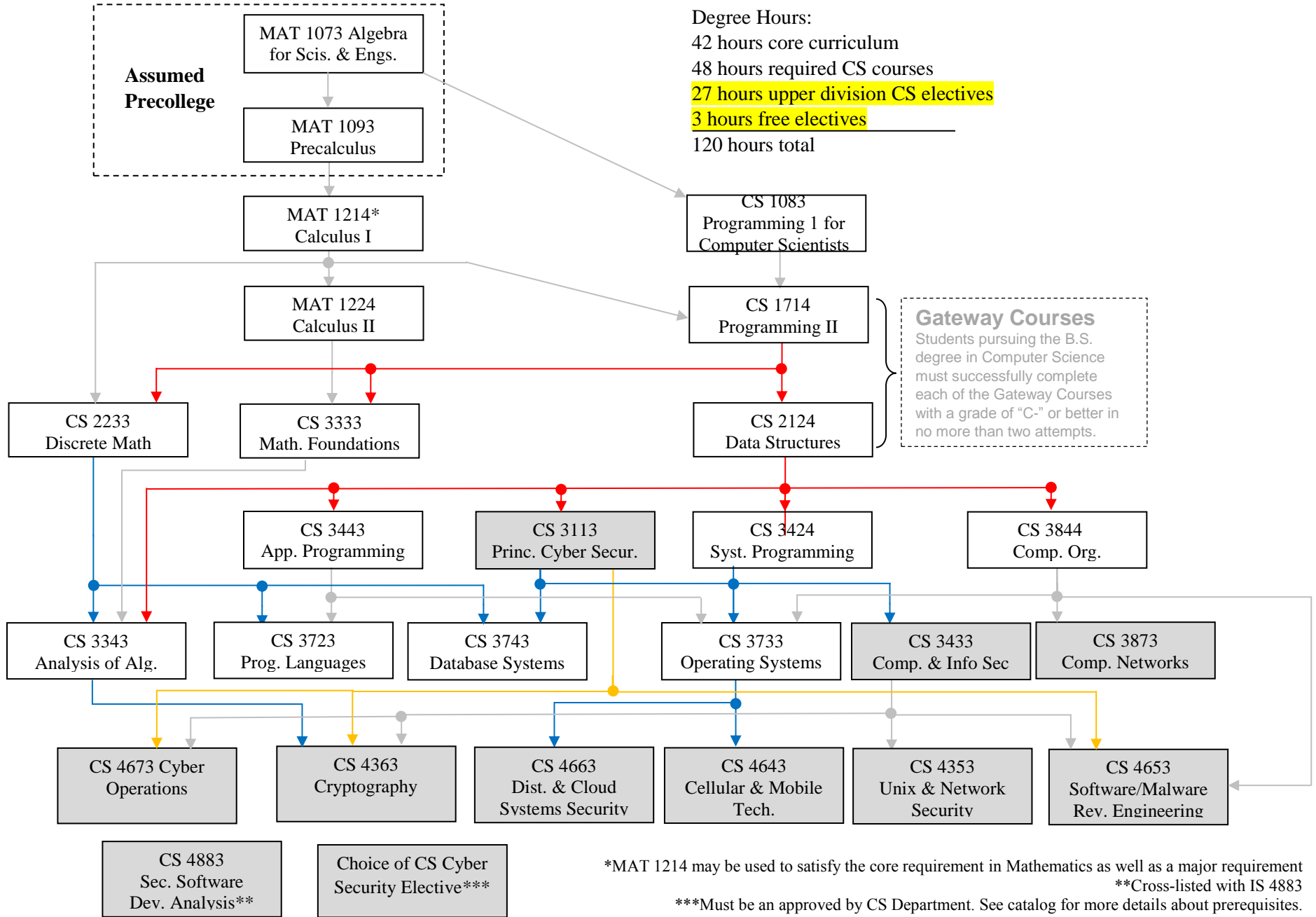


Sequence of CS Core Courses and Concentrations (UTSA 2020-2022 Catalog)



Computer Science Electives (UTSA 2020-2022 Catalog)

CS 1023	Cultural Implications of the Information Society
CS 1033	Microcomputer Applications
CS 1143	Web Design
CS 1153	Game Programming
CS 1173	Data Analysis and Visualization
CS 2073	Computer Programming with Engineering Applications
CS 2153	Game Design
CS 3113	Principles of Cyber Security*
CS 3433	Computer and Information Security*
CS 3753	Data Science
CS 3773	Software Engineering
CS 3793	Artificial Intelligence
CS 3873	Computer Networks*
CS 4223	Bioinformatics and Big Data
CS 4233	Computational Biology and Bioinformatics
CS 4243	Large-Scale Data Management
CS 4313	Automata, Computability, and Formal Languages
CS 4353	Unix and Network Security*
CS 4363	Cryptography*
CS 4373	Data Mining
CS 4383	Computer Graphics
CS 4393	User Interfaces
CS 4413	Web Technologies
CS 4423	Game Development
CS 4593	Topics in Computer Science
CS 4633	Simulation Techniques
CS 4643	Cellular and Mobile Technologies*
CS 4653	Software and Malware Reverse Engineering*
CS 4663	Distributed and Cloud Systems Security*
CS 4673	Cyber Operations*
CS 4683	Secure Software Development and Analysis
CS 4713	Compiler Construction
CS 4723	Software Validation and Quality Assurance
CS 4743	Enterprise Software Engineering
CS 4773	Object-Oriented Systems
CS 4783	Advanced Software Engineering
CS 4823	Parallel Programming
CS 4833	Embedded Systems
CS 4843	Cloud Computing
CS 4853	Advanced Systems Programming
CS 4883	Sec. Software Dev. Analysis*
CS 4863	Distributed Computing and Systems
CS 4963	Advanced Topics in Systems and Cloud
CS 4973	Advanced Topics in Data Science
CS 4993	Honors Research

*Required Course Electives in the Cyber Operations track can only be counted once.