

ALL UNDERGRADUATE COURSES (CSIT)

Course Number	Course Title	Credits	Prerequisites	BSCS	BSIT
APPLIED COMPUTING					
APCT 110/111	Intro to Programming (Lec+Lab)	3	-	Core Requirement	Core Requirement
APCT 115	Foundations of Computing	3	-	Core Requirement	Core Requirement
APCT 231/ 233	Computer Science I (Lec+Lab)	4	APCT 110/111 Intro to Programming (Lec/ Lab)	Core Requirement	Core Requirement
APCT 232/ 234	Computer Science II (Lec+Lab)	4	APCT 231, 233 Computer Science I (Lec+Lab)	Core Requirement	Core Requirement
APCT 341	Advanced Web Development	3	CMOP 235, 236 Introduction to WebPage Development and HTM (Lec+Lab)	CS Elective	IT Elective
COMPUTER OPERATIONS					
CMOP 131/ 132	Computer Networking Fundamentals (Lec+Lab)	4	-	X	Core Requirement
CMOP 231/ 232	Wireless Local Area Networks (Lec+Lab)	3	CMOP 131/ 132 Computer Networking Fundamentals (Lec+Lab)	X	Core Requirement
CMOP 235/ 236	Introduction to WebPage Development and HTML Lec/	3	APCT 231, 233 Computer Science I (Lec+Lab)	Core Requirement	Core Requirement
COMPUTER SCIENCE					
CSCI 135	Scientific Programming	3	-	X	X
CSCI 241	Data Structures	3	APCT 232, 234 Computer Science II (Lec+Lab)	Core Requirement	Δ
CSCI 251/ 253	Assemblers & Systems (Lec+Lab)	3	APCT 231, 233 Computer Science I (Lec+Lab)	CS Elective	Δ
CSCI 306	Computer Ethics and Laws	3	Junior standing or above	Core Requirement	Core Requirement
CSCI 308	Advanced Object-Oriented Programming	3	APCT 232, 234 Computer Science II (Lec+Lab)	Core Requirement	Core Requirement
CSCI 315	Unix and System Programming	3	CSCI 308 Advanced Object-Oriented Programming	CS Elective	Core Requirement
CSCI 317	Multimedia Programming & Design	3	APCT 232, 234 Computer Science II (Lec+Lab)	X	IT Elective
CSCI 325	Organization of Programming Language	3	CSCI 241 Data Structures	Core Requirement	Δ
CSCI 341	Software Engineering	3	APCT 232, 234 Computer Science II (Lec+Lab)	Core Requirement	IT Elective
CSCI 342	System & Network Administration	3	CMOP 231, 232 Wireless Local Area Networks (Lec+Lab)	X	Core Requirement
CSCI 343	Database Administration	3	APCT 232, 234 Computer Science II (Lec+Lab)	X	Core Requirement
CSCI 345	Human Computer Interaction	3	Junior standing or above	CS Elective	Core Requirement
CSCI 351	Computer Networks	3	CMOP 231, 232 Wireless Local Area Networks (Lec+Lab) or CSCI 241 Data Structures	Core Requirement	IT Elective
CSCI 352	Network Security	3	CMOP 231, 232 Wireless Local Area Networks (Lec+Lab)	Security Elective	IT Elective
CSCI 353	Information Security	3	Junior standing or above	Security Elective	Core Requirement
CSCI 398	Advanced Applied Programming	3	APCT 232, 234 Computer Science II (Lec+Lab)	CS Elective	IT Elective
CSCI 410	Theory of Computing	3	CSCI 241 Data Structures MATH 152, 156 Calculus II or equivalent MATH 220 Discrete Mathematics	Core Requirement	Δ
CSCI 412	Operating Systems	3	CSCI 311, 313 Computer Organization (Lec+Lab)	Core Requirement	IT Elective
CSCI 414	Introduction to Artificial Intelligence	3	CSCI 241 Data Structures	CS Elective	Δ
CSCI 415	Computer Organization and Architecture	3	CSCI 241 Data Structures	Core Requirement	IT Elective
CSCI 417	Functional Programming	3	APCT 232, 234 Computer Science II (Lec+Lab)	CS Elective	Δ
CSCI 421	Machine Learning	3	MATH 225 Linear Algebra APCT 232 + 234 Computer Science II (Lec + Lab) MATH 152, 156 Calculus II or equivalent	CS Elective	Δ
CSCI 422	Introduction to Deep Learning	3	MATH 225 Linear Algebra APCT 232 + 234 Computer Science II (Lec + Lab) MATH 152, 156 Calculus II or equivalent	CS Elective	Δ
CSCI 424	Introduction to Compiler Design	3	CSCI 325 Organization of Programming Language	CS Elective	Δ
CSCI 434	Analysis of Algorithms	3	CSCI 241 Data Structures MATH 152, 156 Calculus II or equivalent	Core Requirement	Δ
CSCI 435	Digital Image Processing	3	Junior standing or above	CS Elective	Δ
CSCI 436	Parallel and Distributed Computing	3	CSCI 308 Advanced Object-Oriented Programming	CS Elective	Δ
CSCI 441	Digital Forensics	3	APCT 232, 234 Computer Science II (Lec+Lab)	Security Elective	Core Requirement
CSCI 451	Advanced Network Management	3	CSCI 342 System & Network Administration	X	IT Elective
CSCI 452	Database Systems Design	3	CSCI 241 Data Structures or CSCI 343 Database Administration	Core Requirement	Core Requirement
CSCI 453	Secure Software Engineering	3	CSCI 341 Software Engineering	Security Elective	IT Elective
CSCI 454	Computer Graphics	3	CSCI 241 Data Structures MATH 225 Linear Algebra	CS Elective	Δ
CSCI 455	Cryptography	3	Senior standing or above	Security Elective	IT Elective
CSCI 456	Visualization	3	CSCI 454 Computer Graphics	CS Elective	Δ
CSCI 466	Big Data Analysis	3	CSCI 398 Advanced Applied Programming	CS Elective	Δ
CSCI 490	Special Topics in Computer Science	3	CSCI 398 Advanced Applied Programming Junior standing or above	CS Elective	IT Elective
CSCI 497	Independent Study	3	CSCI 308 Advanced Object-Oriented Programming Senior standing or above	CS Elective	IT Elective
CSCI 498	Senior Project I	3	Senior standing or above	Core Requirement	Core Requirement
CSCI 499	Senior Project II	3	Senior standing or above	Core Requirement	Core Requirement

X: All CS and IT students must not take the X marked courses that are not counted as their degree program requirements.

Δ: BSIT students are allowed to take the Δ marked courses for IT electives under the condition of satisfying the prerequisite requirements of the courses.