CSCI 112 INTRO COMPUTER SYSTEMS

"An essential course for computer science undergraduates, covering computer system fundamentals, architecture, and assembly language programming. Gain a deep understanding of computer systems and develop proficiency in 80x86 assembly language programming, including reading, writing, and debugging."

TECH: x86 ASSEMBLY LANGAUGE

CSCI 113 INTRODUCATION TO COMPUTER ORGANIZATION

"College course covering contemporary computer organizations and operations, including digital logic, performance analysis, instruction set design, computer arithmetic, processor implementation, memory hierarchy, I/O, and optional parallel systems."

TECH: C++

CSCI 114 INTRODUCTION TO OPERATING SYSTEMS

"College course exploring the history and services of operating systems, including file systems, memory management, process management, resource management, and security mechanisms."

TECH: C++

CSCI 115 ALGORITHMS AND DATA STRUCTURES

"College course covering fundamental data structures, algorithms for graphs, sorting, searching, memory management, hashing, and dynamic storage allocation. Emphasizes algorithm design and integration into system design."

TECH: C++

CSCI 117 STRUCTURES OF PROGRAMMING LANGUAGES

"College course exploring programming language concepts, including paradigms, semantics, data abstraction, concurrency, and practical techniques. Labs focus on languages like Haskell, Oz, and Prolog, with a survey of other programming languages."

TECH: Haskell, Oz, and Prolog

CSCI 119 INTRODUCTION TO FINITE AUTOMATA

"College course introducing Finite Automata, Regular Languages, and Formal Language Theory, with hands-on lab assignments using Haskell for practical application."

TECH: Haskell

CSCI 126 DATABASE SYSTEMS

"College course providing an introduction to databases, covering relational databases, data models, relational algebra, SQL, database design, and semi structured data. Students learn to work with databases, design them, and use SQL for data management and querying."

TECH: SQL and XML

CSCI 154 SIMULATION

"College course exploring simulation as a tool for studying complex systems in computer science, statistics, and operations research. Topics include random variable generation, simulation language principles, and practical examples."

TECH: python

CSCI 156 INTERNETWORKING SYSTEMS AND PROTOCOLS

"College course covering network technologies, addressing, routing, protocol layering, and client-server interactions in computer networking."

TECH: HTML, JavaScript, Node.js, Express.js, socket.io

ECE 146 COMPUTER NETWORKS

"This course covers the analysis, theory, and modeling of computer networks, including layered protocols, flow control, routing, and performance analysis using probability, random processes, and queuing theory."

TECH: Wireshark

CSCI 164 ARTIFICIAL INTELLIGENCE PROGRAMMING

"This course introduces problem-solving methods in artificial intelligence, including production systems, knowledge-based systems, and machine learning. It covers topics such as fuzzy logic, neural network models, and genetic algorithms. Additionally, the course explores verification, validation, and testing techniques."

TECH: Python

CSCI 166 PRINCIPLES OF ARTIFICIAL INTELLIGENCE

"This course explores artificial intelligence, which involves machines demonstrating intelligence. It covers key principles such as agent theory, optimization, and various types of learning, including unsupervised, supervised, and reinforcement learning."

TECH: Python

CSCI 191T GAME DEVELOPMENT

"This course introduces students to game engine development, covering topics such as rendering, 2D graphics, shaders, animation, object management, sound, AI, level generation, and debugging. It focuses on hands-on experience by building a simple 2D billboard game with constrained camera motion."

TECH: C++

CSCI 191T COMPUTER SECURITY

"This course covers both theory and practical aspects of a wide range of security topics. It emphasizes implementing attacks and countermeasures, including access control, malicious code vulnerabilities, web security, cryptography, secure engineering, and programming principles. Students will engage in hands-on experiments in a sandbox environment to gain insights into common vulnerabilities and their solutions."

TECH: Linux