

# COMPUTER SCIENCE (CSC)

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## CSC 820: Large-Scale Software Systems

3 Credits

This course emphasizes the study of large-scale software systems through a software development project, serving as a central component. The focus is on understanding the design, construction, maintenance, and management of extensive software projects. The course begins with a detailed introduction exploring defining characteristics and challenges associated with large-scale systems, including distributed systems, concurrency, and parallelism. It then covers fundamental aspects like software development life cycle, DevOps principles, requirements engineering, and software architecture. Students will develop proficiency in construction technologies, front-end and back-end development, cloud computing, and specialized software testing strategies for large-scale systems. The course concludes with a thorough examination of software engineering operations and economic considerations, providing a comprehensive understanding of the multifaceted field.

## CSC 850: Machine Learning Systems

3 Credits

This course equips students with the essential skills and knowledge required to actively participate as valuable team members in the field of data science, specifically focusing on big data, machine learning, and data analytics projects. This course is tailored for individuals seeking to gain a comprehensive understanding of data science within the context of a practicing Data Scientists and Machine Learning Engineers.