SWE 4633: Cloud Software Development

3 Credit Hours

Prerequisite: CS 3305

This course discusses the fundamental concepts and tools of cloud-based application development. Students will learn how to develop apps on top of the cloud with an understanding of various contemporary cloud providers (e.g., Amazon Web Services, Google Cloud, or Microsoft Azure). Students will do hands-on projects focused on building cloud-run applications using their platform of choice.

SWE 4663: Software Project Management

3 Credit Hours

Prerequisite: SWE 3313 and STAT 2332

This course focuses on organizational and technical roles in software engineering. Models of software engineering life cycle, software maturity framework, strategies of implementing software, software process assessment, project planning principles and tools, software configuration management, managing software quality and usability, leadership principles and legal issues will be covered. A required team project combines technical and managerial techniques of software design and development.

SWE 4713: SWE Application Domain

3 Credit Hours

Prerequisite: SWE 3623

Concurrent: SWE 3643 and SWE 4663

Students work as part of a team to develop solutions to problems posed by either internal or external customers in a specific SWE Application Domain. The purpose of the course is for students to gain an understanding of the selected application domain and its use of software to support functions/operations within that domain. Application domain selection is done every term from a variety of industrial domains including Security, Gaming, Automotive, Aerospace, Military, Finance and Commerce. Problems may require considerable software development or evolution and maintenance of existing software products. The course culminates with the completion and presentation of an increment of the project solution.