

CSCI 5801 - Software Engineering

Fall 2026 Syllabus, Section 03, CRN 42853,

Credit hours: 3

Instructor

Debojyoti Biswas

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Public Instructor Information

Instructor Title: Assistant Professor

Instructor Professional Qualifications:

Ph.D., Computer Science, Texas State University, 2025

B.Sc., Information and Communication Engineering, Noakhali Science and Technology University, 2018

Instructor Office Location: Meshel Hall, Room 322

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Course Description

5801. Software Engineering. Developing and maintaining complex software systems. Process and life-cycle models, and tools for software development (such as CASE). Specification methods, prototyping, validation and verification strategies, and version maintenance. Management of the system development process. A group project is required. Prereq.: CSIS 3701 or graduate standing. 3 s.h.

Course Readings

Group	Title	Author	ISBN
Required	Software Engineering, 10th Edition	Ian Sommerville	9780133943030

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Schedule of Topics and Assignments

Week of	Reading(s)	Proposed Topic	Due/To Prepare for Class
8/24	Introductory Material	Chapter 1	Team Selection
8/31	Development Processes and Models	Chapter 2	Team Selection Project Planning
9/7	Agile Methods	Chapter 3	Team Selection Project Planning
9/14	Requirement Analysis	Chapter 4	Project Discussion
9/21	System Modeling	Chapter 5	Project Discussion Projects Selected
9/28	Slack Space / Project Discussion		First assignment due (Project plan)
10/5	Architecture and System Design	Chapter 6	Topic presentation due
10/12	AI-Assisted Software Development	Class Materials	Design Work
10/19	Program Design and Implementation	Chapter 7	Design Work
10/26	More Program Design		Assignment 2 due (System and program design)
11/2	Unit and System Testing	Chapter 8	Project work (now until end of course)
11/9	AI-Assisted Testing and Quality Assurance	Class Materials	Project work
11/16	Software Maintenance	Chapter 9	Assignment 3 due (Testing)
11/23	TBA / Buffer		No class Thursday 11/26 (Thanksgiving)

11/30	TBA / Project Work	Project Report Finalize/ Presentation
12/7	Final Project Due	Final Project due in Blackboard by 12/06/2026, 11:59 PM EST

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.