# CSCI 5801 - Software Engineering

## Fall 2026 Syllabus, Section A01, CRN 43582,

Credit hours: 3

## Instructor

**Robert Kramer**

Email: rwkramer@ysu.edu

## Public Instructor Information

Instructor Title: Associate Professor
Instructor Professional Qualifications: PhD, Computer Science, University of Pittsburgh, 1998
MS, Computer Science, University of Pittsburgh, 1991
BS, Mathematics / Computer Science,
Youngstown State University, 1987
Instructor Office Location: 326 Meshel
Instructor Office Phone: 330-941-1495

## 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 |
|---|---|---|---|
| | Software Engineering, 10th edition | Sommerville | 978-0133943030 |

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

## Tentative Course Schedule

| Week of | Reading(s) | Proposed Topic | Due/To Prepare for Class |
|---|---|---|---|
| 10/19 | Chapter 1<br>Chapter 2 | Introduction<br>Development Processes and Models | Team Selection |
| 10/26 | Chapter 3 | Agile Methods | Project Plan |
| 11/2 | Chapter 4 | Requirements Analysis | |
| 11/9 | Chapter 5<br>Chapter 6 | System Modeling<br>Architecture and System Design | System / Program Design |
| 11/16 | Chapter 7 | Program Design and Implementation | |
| 11/23 | Chapter 8 | Unit and System Testing | Testing |
| 11/30 | Chapter 9 | Software Maintenance | Final Report<br>Project Deliverable<br>Video Presentation |

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.