COURSE: SE 501 - Introduction to Software Development
DATE: Fall 2025 *(August 25, 2025 – December 13, 2025)*
INSTRUCTOR: P. M. Jackowitz
OFFICE: LSC 192
OFFICE HOURS: As posted (online and office door), and by appointment.
(Additionally, remote meeting particulars will be provided as needed.)
TELEPHONE: (570) 941-6107
EMAIL: paul.jackowitz@scranton.edu
WWW: https://www.scranton.edu/faculty/jackowitz/

CATALOG COURSE DESCRIPTION: (Prerequisite, admission to the program) This course serves as an introduction to the discipline of Software Engineering, involving both a study of theory and practice. Significant ideas and developments are emphasized along with an examination of terminologies, classifications, paradigms, and methodologies. This course also provides an opportunity to review essential computer science material (data structures, programming languages and environments, systems and architectures) as appropriate within this context.

Student Learning Outcomes: Upon completion of this course, a successful student will have the ability to do each of the following:

- Provide an overview of the history of Software Engineering.
- Identify some of the prominent individuals who have made significant contributions to the development of Software Engineering and explain their contributions.
- Provide an insightful definition for Software Engineering and be able to substantiate an opinion on whether or not Software Engineering should be considered an "engineering discipline" on par with the traditional areas of engineering.
- Define and discuss at length the Software Life Cycle.
- Identify and explain numerous Software Process Models, discuss their respective advantages and disadvantages and identify situations that merit their application
- Define and discuss at length Requirements Analysis, Design (at both the Architectural level and the Modular level), Implementation, Testing and System Maintenance
- Explain the role and importance of Project Planning, Project Management and metrics in Software Engineering
- Be familiar with the sources of research in Software Engineering and be able to read, understand and evaluate the significance of current developments as they pertain both to the theory and practice of Software Engineering
- Write and speak clearly and in an informed way on topics of interest in Software Engineering
- Function as a contributing member of a Software Development team in a variety of capacities, including but not limited to, requirements gathering, architecture design, modular design, programming, testing and software maintenance.

TEXTS: Software Engineering, 10th edition, Ian Sommerville, Pearson © 2016

REFERENCES: As presented and as required.

Course Materials: The corresponding Brightspace "course" will provide students access to course materials, with "drop boxes" configured for the submission of work for the instructor to evaluate.

GRADING:

Tests and Quizzes	20%
Final Exam: (Comprehensive, as scheduled)	40%
Assignments/Homework (Submission and Assessment)	20%
Reports/Presentations/Participation	20%

(Your non-tardy full-period attendance at all class meetings is expected, and so is your full attention and active participation in these meetings. The accumulation of more than four absences may result in a diminished final course grade.)

PROCEDURES:

Lectures:

- Please sit in the same seat for every class meeting.
- Feel free to ask and answer questions, and to contribute to discussions.
- Classroom use of all electronic devices/gadgets (including computers) is at the full discretion of the instructor. *(Distracting others or yourself will not be tolerated.)*

Tests and Quizzes:

- Always announced in advance, and **no make-ups will be given** .
- Notice must be given if a test must be missed due to serious illness or emergency.

Assignments:

- Assignments are activities accomplished outside of class meetings that require the development and submission of specified items (typically source programs) that may be tested, evaluated and graded.
- Each student is required to submit the results they have accomplished for each assignment.
- Discussions and mutually beneficial collaboration among students is encouraged, but must not be to the point of representing someone else's effort and understanding as one's own, as this would be considered to be **academic dishonesty.**
- Although learning how to make effective use of online and AI resources has merit, the Student Learning Outcomes require the student to develop conceptual understanding and learned abilities that are hindered by their overuse. Thus, students must be forthright in identifying that which they have obtained from that which they themselves have developed. Academic dishonesty would be the case if a student were to present results that were obtained rather than developed without appropriate citation; especially if those results are not well understood by the student.
- Academic dishonesty will be dealt with **severely;** see Academic Code of Honesty in the Student Handbook at: https://www.scranton.edu/academics/cte/acad-integ/acad-code-honesty.shtml **.**
- Each assignment will have a specified **due date** and results submitted **after the due date are considered to be "late"**, and may be assessed a late penalty.
- Assignments typically have a corresponding specified **subsequent deadline**, after which results may not be submitted, since it is then considered to be **"too late"**.
- Incomplete results generally will receive a grade much higher than zero, while not submitting will result in a grade of zero.

Other:

- Remote Attendance – Expectations and Etiquette, available on the Brightspace course page.
- See Syllabi Language regarding "My Reporting Obligations as a Required Reporter" at: https://www.scranton.edu/equity-diversity/faculty-resources.shtml