

**CSE 470**  
**SOFTWARE ENGINEERING**

Dear Students,

Greetings to each and every one of you!

We hope this message finds you well. We understand that these times have been challenging, and we want to assure you that we deeply care about your well-being and academic success.

In light of the recent developments and to support you better, we have made some adjustments to the syllabus for Summer 2024. Our goal is to ensure that you can continue to learn effectively while maintaining good health in this current situation. Here's a brief overview of the updated syllabus and assessment plan:

## **Final Syllabus for Summer 2024:**

### **Before Mid:**

- Requirement Engineering: Functional and Non-Functional Requirements
- Agile Development Process and Framework: Scrum
- Software Architectural Patterns: MVC, Layered, Repository, Client-Server, Pipe-Filter

### **New Topics to Learn:**

- Design Patterns: Types, Examples, and Implementations (Observer, Adapter, Singleton)
- Software Quality Metrics: CFG, Cyclomatic Complexity, Independent Path, and SIX

## **CSE470 Summer 2024 Final Syllabus Rubric**

<b>Topic</b>	<b>Remaining Schedule</b>	<b>Revised Schedule (After Midterm)</b>	<b>Quiz /Assignment Plan</b>
Software Design Pattern: (Singleton, Observer)	Week 1 (24 August - 29 August)	Theory and two design patterns will be covered during the allotted time	Assignment 2 Deadline: 8 Days (End of Week 2)
Continuation of Software Design Pattern (Adapter), Software Metrics: CFG	Week 2 (31 August - 5 September)	One design pattern will be taught here, and then we will move to the theoretical concepts of metrics and CFG drawing	Assignment 3 Deadline: 8 Days (End of Week 3)
Continuation of Software Metrics: CFG, Cyclomatic Complexity, Independent path, Specialization Index (SIX)	Week 3 (7 September - 12 September)	continuation of the software metrics topics will start on mathematical problem-solving.	Quiz 3
Requirement Engineering: Functional and Non-Functional Requirements • Agile Development Process and Framework: Scrum • Software Architectural Patterns: MVC, Layered, Repository, Client-Server, Pipe-Filter	Week 4 (14 September - 19 September)	Midterm Syllabus (Review)	Quiz 4

## CSE470 Summer 2024 Final Syllabus Comparison

Previously Assigned	Revised Schedule
All the topics of Mid Except Diagram (Class Diagram, Use Case Diagram)	<b>Excluded Everything except the Following:</b> Requirement Engineering: Functional and Non-Functional Requirements • Agile Development Process and Framework: Scrum • Software Architectural Patterns: MVC, Layered, Repository, Client-Server, Pipe-Filter
Design Pattern and its Type, example of Design Pattern and its Implementation: Observer, Adapter and Singleton	Software Design Pattern Concepts for 3 types: (Singleton, Observer, Adapter)
Software Testing (Automated, Manual Testing, Theory)	Excluded
Software quality metric (CFG, Cyclomatic Complexity, Independent path, SIX)	Software quality metric (CFG, Cyclomatic Complexity, Independent path, SIX)
Software Engineering Effort Estimation - COCOMO	Excluded
Refactoring of Software Code	Excluded

## Assessment Plan

### Assignments (30%):

- Assignment 1 (10 Mark): A class diagram of your project was already assigned. Will be scaled to 10.
- Assignment 2 (30 Mark): This will focus on Design Patterns which we will cover in the first week. The theory faculty will announce details and the preferred submission date, which is tentatively the 2nd week after classes resume.
- Assignment 3 (30 Mark): This will focus on Software Quality Metrics which we will cover after the Mid. The theory faculty will announce details and the preferred submission date, which is tentatively the 3rd week after classes resume.

All assignments will be evaluated as follows: The mark for Assignment 1 will be converted to a score out of 10. Assignments 2 and 3 will each be scored out of 30. The average of these two scores will then be converted to a score out of 20. Finally, the total mark will be the sum of the 10 points from Assignment 1 and the 20 points from Assignments 2 and 3, resulting in a score of 30. You will have approximately 8 days to submit each assignment.

#### Assignment assessment Tentative plan

Category	Allocated Mark	Converted Mark	Final Mark
Assignment-1	15	10	10
Assignment-2	30	Will be made averaged converted to 20	20
Assignment-3	30		
<b>Total</b>			<b>30</b>

**Quizzes (35%):**

- Quiz 1 & 2: Best one from Previously taken quizzes will be scaled to 10 marks.
- Quiz 3: A new quiz will be held, worth 30 marks.
- Quiz 4: Another quiz will be taken which worth 30 marks.

The evaluation for quizzes will be as follows: The Best one from Quiz 1 and Quiz 2 will be selected and scaled to 10 points. Similarly, the Best one score from Quiz 3 and Quiz 4 will be chosen and converted to 20 points. Tentatively, Quiz 3 will be held in the 2nd week and Quiz 4 in the 3rd week after classes. The final mark will be the sum of the 10 points from the best score of the previous set of quizzes and the 25 points from the best score of the recent set of quizzes.

**Quiz assessment Tentative plan**

Category	Allocated Mark	Converted Mark	Final Mark
Best One from Quiz 1 and 2	15	10	10
Best One from Quiz 3 and 4	30	25	25
<b>Total</b>			<b>35</b>

**Project & Mid:**

Due to current situation, there will be no MID and Project this semester.

**Final Exam (35%):**

The final exam will cover material from the syllabus we mentioned. The distribution will be 15 marks for content covered before the mid-term and 20 marks for material from after the mid-term.

We understand that these changes will require some time to adapt, but we believe in your brilliant abilities to manage your workload effectively. We are committed to supporting you and have every confidence that you will navigate these challenges with both resilience and success.

If you have any questions or need further clarification, please do not hesitate to reach out. Your success is our priority, and we are here to assist you every step of the way.

Wishing you all the best in your studies and health.

Regards,

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CSE 470