

CSE4203 Principles of Software Architecture

COURSE INFORMATION

Prerequisites	Academic Year & Level		Teaching Methods			Credit Hrs.
	Year	Semester	Lecture	Tutorial	Laboratory	
CSE3101 & CSE3202	3	6	2	2	0	3

COURSE AIM

- Understand principles of software architecture and their application to the software development process.
- Apply a variety of architectural styles.
- Write a software architectural design document.
- Understand quality attributes.
- Utilize different architectural tactics and patterns.
- Review and evaluate software architectures.
- Specify software architecture and implement a software system embodying it.
- Use computer-aided software engineering (CASE) tools in an architecture-driven design process.
- Communicate architecture and design issues in an oral presentation.

COURSE WEEKLY CONTENTS

1	What is Software Architecture? Why is Software Architecture Important?
2	Understanding Quality Attributes
3	Availability
4	Modifiability
5	Performance
6	Testability
7	7 th week examination
8	Usability
9	Patterns and Tactics
10	Documenting Software Architecture
11	12 th week examination
12	Architecture, Implementation, and Testing
13	Architecture and Product Lines
14	Architectures for the Cloud
15	Architectures for the Edge

STUDENT GRADING & ASSESSMENT

Weeks	Exams	Assign.	Quizzes	Reports	Present.	Lab.	Total
1 to 7	←		30	MARKS		→	30
8 to 12	←		20	MARKS		→	20
1 to 15	←		10	MARKS		→	10
16 or 17	40	Final					40

REFERENCES

Textbook Len Bass, Paul Clements, Rick Kazman, *Software Architecture in Practice*, Addison-Wesley.