

CSE3202 Software Component Design

COURSE INFORMATION

Prerequisites	Academic Year & Level		Teaching Methods			Credit Hrs.
	Year	Semester	Lecture	Tutorial	Laboratory	
CSE2001 & CCS2304	3	6	2	2	0	3

COURSE AIM

- Understand and apply object-oriented design patterns.
- Understand the use of UML in the design process.
- Design and implement small software components and systems.
- Use computer-aided software engineering (CASE) tools in the design process
- Perform research on software design patterns.
- Document software design concepts in a written report.
- Communicate software design concepts in a brief oral presentation

COURSE WEEKLY CONTENTS

- 1 Revision of Object-Oriented principles
- 2 Introduction to pattern design
- 3 Singleton, Factory, and Abstract Factory Design Pattern
- 4 Builder and Prototype Design patterns
- 5 Adapter and Bridge Design patterns
- 6 Composite, Decorator and Façade Design Patterns\
- 7 7th Week Exam
- 8 Proxy, Chain of responsibility.
- 9 Command and Interpreter Design Patterns
- 10 Observer, Strategy and Template Design pattern.
- 11 Visitor and Data Access Object Design pattern.
- 12 Component-based software architecture
- 13 Principles of Component-Based Design
- 14 Project Presentations and Demo
- 15 Revision

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 J. M. Smith, *Elemental Design Patterns*, Addison Wesley.