No	Information of IT 51065	
1	Unit name:	Software Engineering
2	Code:	IT 51065
3	Classification:	Engineering Subject
4	Credit value:	3
5	Semester/ Year Offered:	I/V
6	Pre-requisite:	
7	Mode of delivery:	Lecture, Practical, Assignment
8	Assessment system and breakdown of marks: Practical Tutorial	 20% 10%
	Mid-term/ Final Examination	70%
9	Academic staff teaching unit:	Department of Information Technology Engineering

10	Course outcomes of unit:
	After completion of this course, students will be able
	    1. To provide a general introduction to software engineering
	    2. To understand about the concept of software engineering processes and agile development
	    3. To understand what the different models in the system modeling can be used to represent software systems
	    4. To know why the architectural designs and implementations of software are important	

11	Synopsis of unit: The course describes the introduction of software engineering and process. The course introduces the best software engineering techniques and methods, software activities, modeling system, architectural design and implementation. The software engineering processes and activities for the organizations get from this course. There are student's presentations and review questions, exercises, research activities for each chapter to enhance the book's usefulness in the classroom	
12	Topic: **1. Introduction to Software Engineering**	

- ✓ Professional software development
- ✓ Software engineering ethics
- ✓ Case studies

2. Software Processes

- ✓ Software process models
- ✓ Process activities
- ✓ Coping with change
- ✓ The Rational Unified Process

3. Agile Software Development

- ✓ Agile methods
- ✓ Plan-driven and agile development
- ✓ Extreme programming
- ✓ Agile project management
- ✓ Scaling agile methods

4. Requirements engineering

- ✓ Functional and non-functional requirements
- ✓ The software requirements document
- ✓ Requirements specification
- ✓ Requirements engineering processes
- ✓ Requirements elicitation and analysis
- ✓ Requirements validation
- ✓ Requirements management

5. System modeling

- ✓ Context models
- ✓ Interaction models
- ✓ Structural models
- ✓ Behavioral models
- ✓ Model-driven engineering

6. Architectural design

- ✓ Architectural design decisions
- ✓ Architectural views
- ✓ Architectural patterns
- ✓ Application architectures

	7. Design and implementation ✓ Object-oriented design using the UML ✓ Design patterns ✓ Implementation issues ✓ Open source development
14	Main references: Lan Sommerville, Software Engineering, (9th Edition)
15	Additional references: Lan Sommerville, Software Engineering, (8th Edition)

Daw Khin Swe Lin

Lecturer

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