Course Name	SOFTWARE ENGINEERING		Course Code	COMP 371		
Credit Hours	3		Contact Hours	Lec	Lab	Total
				2	2	4
Offered as	☐ University Requirement ☒ College Requirement ☐ Program Requirement ☒ Core ☐ Elective ☒ ITEC ☒ COMP ☒ CNET					
Level	6		Prerequisite	Nil		

Course Description:

Software engineering is a major branch of computing science that deals with the development of software systems as practical and cost-effective solutions for individuals and society. This course covers the fundamentals of software engineering like software life cycle, requirements engineering, system development paradigm, and system modeling using UML. It also covers software verification & validation, important implementation issues, open source development and concepts of software re-engineering. The course has a strong technical relation with graduation project providing the opportunity to practice software engineering knowledge, skills, and practices in a realistic development setting with a real client.

Upon completion, the student will be able to:

- Have knowledge of basic SW engineering methods and practices, and their appropriate application.
- Describe software engineering layered technology and Process frame work.
- Understand various software process models, Software requirements and the SRS documents.
- Understand the role of project management including planning, scheduling, risk management, etc.
- Describe data models, object models, context models and behavioral models.
- Understand different software architectural styles, implementation issues such as modularity and coding standards.
- Understand approaches to verify and validate including static analysis, and reviews.
- Describe software measurement and software risks.
- Understand software evolution and related issues such as version management

Assessment Methods						
	Exam-1 ☒	10%	Exam-2 ☒	10%	Assignments ☒	20%
	Attendance ☐	-	Lab Exam ☒	20%	Final Exam ☒	40%

Text Book:

- Pankaj Jalote, "A Concise Introduction to Software Engineering", Publisher: Springer, ISBN: 978-1-84800-301-9, 2008.

References:

- R. S. Pressman, "Software Engineering: A Practitioners Approach", 8th edition, ISBN-13: 978-0078022128, 2015, McGraw Hill International publication, 2015.