

<b>Course Title</b>	<b>Software Requirement Engineering</b>		
<b>Course Code</b>	<b>DS-221</b>		
<b>Credit Hours</b>	3 (2,1)		
<b>Category</b>	Domain Core		
<b>Prerequisite</b>	None		
<b>Co-Requisite</b>	None		
<b>Follow Up</b>			
<b>Course Learning Outcomes (CLOs)</b>	At the end of the course, the students will be able to:	<b>BT</b>	<b>PLO</b>
	CLO1: Describe the requirements engineering process	C1 (Remember)	1
	CLO2: Effectively analyze software requirements for the development of cost-effective and efficient technical solutions.	C4 (Understand)	2.3
	CLO3: Prepare both functional and non-functional requirements along with validation for a medium-size software system.	C3 (Apply)	3
	CLO4: Document effective requirements in Software Requirements Specification (SRS) using clear, unambiguous requirements.	C3 (Analyze)	3.5
<b>Course Description</b>	Introduction to Requirements Engineering, Software Requirements, classification of requirements, Requirements process, Levels/layers of requirements, Requirement characteristics, Analyzing quality requirements, Software requirements in the context of systems engineering, Requirement evolution, requirement traceability, requirement prioritization, trade-off analysis, risk analysis and impact analysis, Requirement management, interaction between requirement and architecture, Requirement elicitation, elicitation sources and techniques, Requirement specification and documentation, specification sources and techniques, Requirements validation and techniques, Management of Requirements, Introduction to Management, Requirements Management Problems , Managing Requirements in an Acquisition Organization, Supplier Organizations, Product Organizations, Requirements engineering for agile methods.		
<b>Text Book(s)</b>	1. Software Requirements, Wiegers K. & Beatty J., 3rd Ed. Microsoft Press, 2013		
<b>Reference Material</b>	<ol style="list-style-type: none"> <li>1. Requirements Engineering, Elizabeth Hull, Ken Jackson and Jeremy Dick. 3rd Ed, Springer-Verlag London Limited, 2011.</li> <li>2. Requirements Engineering and Management for Software Development Projects, Chemuturi M., Springer New York, 2013.</li> </ol>		