

CSE11123	Full Stack Software Development	L	T	P	C
Version 1.0	Contact Hours 45	3	0	0	3
Pre-requisite/Exposure					
Co-requisite					

Course Objectives:

- To enhance software development capability of students
- To familiarize students with modern software development technologies
- To introduce all components of software development cycles

Course Outcomes:

CO1: Understand the concepts of full stack development
CO2 : Explain the uses of front end libraries and frameworks
CO3 : Understand principles of backend development
CO4 : Explore database management solutions

CO5: Compare several popular stacks

Course Content:

Units	Lecture Hours
Unit-I: Component of full stack development Software Requirement specification, Interface Design, Database Design, Logic Design AGILE software development	9
Unit-II: Front-End Development : Overview of front-end languages : HTML, CSS, Javascript Overview Overview of front-end frameworks and Libraries: AngularJS, React.js, Bootstrap, jQuery, SASS GUI Design principles and challenges	9
Unit-III: Backend Development : Overview of backend development frameworks : PHP, C++, Java, Python, JavaScript, Node.js, Django, Rails, Laravel Efficient data handling, API requests, Data security	9
Unit-IV: Database Management : Overview of database management frameworks: Oracle, MongoDB, MariaDB, SQL Overview of distributed database management: Hadoop Database connectivity protocols.	9
Unit-V: Popular Stacks: MEAN Stack: MongoDB, Express, AngularJS and Node.js. MERN Stack: MongoDB, Express, ReactJS and Node.js Django Stack: Django, python and MySQL as Database. Rails or Ruby on Rails: Uses Ruby, PHP and MySQL. LAMP Stack: Linux, Apache, MySQL and PHP. Python Stack: Pandas, Numpy, Matplotlib, Tkinter.	9

Examination Scheme:

Components	Mid Term	Class Assessment	End Term
Weightage (%)	20	30	50

Relationship between Course Outcomes (COs) and Program Outcomes (POs):

1 = Weakly Mapped, 2 = Moderately Mapped, 3= Strongly Mapped

Course Code	Course Name	COs	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O3
CSE11123	Full Stack Software Development	CO11123.1	3	3	3	2	3	2	2	-	3	-	3	2	2	1	1
CSE11123	Full Stack Software Development	CO11123.2	1	3	2	2	3	3	3	-	2	-	2	1	2	1	2
CSE11123	Full Stack Software Development	CO11123.3	1	3	3	2	3	3	2	-	1	-	2	1	1	2	3

		CO11123.4	1	2	2	3	2	2	2	-	2	-	3	1	3	2	2
		CO11123.5	2	3	3	2	2	2	1	-	3	-	2	2	1	2	3
		CO11123	1.6	2.8	2.6	2.2	2.6	2.4	2.0	-	2.2	-	2.4	1.4	1.8	1.6	2.2