

**Name of the Programme: M.Sc. in Artificial Intelligence**

**Course code:CSI-515**

**Title of course: Software Engineering for AI Enabled Systems Lab**

**Number of credits: 2 (OL-OT-2P)**

**Effective from AY: 2023-24**

<b><u>Prerequisites for the course</u></b>	Programming & Data Structures, Python	
<b><u>Objectives</u></b>	Applying SE approach to developing AI solutions Use of modern software engineering tools and frameworks	
<b><u>Content</u></b>	1)Version Control Tools- Git and Github 2)TDD –Unit testing and refactoring with Python 3)Working with Python libraries and frameworks 4)Use of testing tools- selenium, Jmeter 5) Cloud based software development & DevOps	12 hours 12 hours 12 hours 12 hours 12 hours
<b><u>Pedagogy</u></b>	Lab sessions and projects	
<b><u>References/ Readings</u></b>	1. Hands-On Software Engineering with Python: Move beyond basic programming and construct reliable and efficient software with complex code, Brian Allbee, Packt Publishing. 2. A concise Introduction to Software Engineering, Pankaj Jalote-2008n- Springer. 3. Agile Estimating and Scrum, Mike Cohn, Prentice Hall.	
<b><u>Course Outcomes</u></b>	1. Application of SE principles for AI and Data Science projects 2. How to work in self organizing teams 3. Use of tools and techniques for automating and managing software development 4. Understand how to implement devop	