

Dept Number	CS 305	Course Title	Software Development Practices							
Semester Hours	3	Course Coordinator	Amiangshu Bosu							
Catalog Description	Practices, tools and methodologies for development of software within the context of a team. Agile software practices and modern development tools are used to build an enhanced understanding of object-oriented design principles, implementation, and testing to meet customer requirements. A team project is an integral part of this course.									
Textbooks										
SP17										
<i>Essential Skills for the Agile Developer: A Guide to Better Programming</i> , Alan Shalloway, Scott Bain, Ken Pugh, Amir Kolsky, 1 st Edition, 2011, ISBN: 9780321543738.										
References										
<ul style="list-style-type: none"> • <i>Agile Software Development, Principles, Patterns and Practices</i>, Martin, Robert. Prentice Hall, 2002. • <i>Agile Java™: Crafting Code with Test-Driven Development</i>, Langr, Jeff. Prentice Hall, 2005. • http://eclipse.org/ • http://www.junit.org/ • http://ant.apache.org/ • http://subclipse.tigris.org/ • http://svnbook.red-bean.com/ 										
Course Learning Outcomes										
<ul style="list-style-type: none"> • To gain skills and appreciation of the functionality provided by a modern IDE. • To develop skills in writing clean clear code designed to meet a client’s requirements. • To be able to coordinate with a team face-to-face as well as through a project repository. • To gain experience and appreciation for software development process, practices & tools. 										
Assessment of the Contribution to Student Outcomes										
Outcome →	1	2	3	4	5	6	7	8	9	10
Assessed →		X	X	X	X	X		X		
Prerequisites by Topic										
CS 220 with a grade of C or better										

Major Topics Covered in the Course

1. Introduction and Perspectives on Software Development {3 classes}
2. Communication, Collaboration and Teamwork {3 classes}
3. The Software Development Environment- working with the IDE {3 classes}
4. Refactoring and Communicating through code {8 classes}
5. Project Repositories to Support Teamwork {4 classes}
6. Testing and Automation {6 classes}
7. Object-Oriented Principles, Patterns and Design Notations {7 classes}
8. Estimating, Planning and Tracking progress {6 classes}