

SYLLABUS  
PART I  
EDISON STATE COMMUNITY COLLEGE  
IMD 224S WEB APP DEVELOPMENT  
3 CREDIT HOURS

**COURSE DESCRIPTION**

Continuation of web development using C# and ASP.NET. Topics include fundamentals of C# and .NET, including structures, methods, and classes. ASP.NET is also included, with a focus on development using the MVC pattern. Students will learn to build one-page, responsive, and data-driven web apps and develop strong testing and debugging techniques. Prerequisite: CIS 121S with a grade of “C” or better and IMD 121S with a grade of “C” or better or department approval.

**COURSE GOALS**

The student will:

Bloom's Level		Program Outcomes
2	1. Execute the software development process to create a top-down design approach when writing web apps.	3, 4, 5
5	2. Create C# structures, methods, classes, and other features listed in the course topic outline.	3, 4
5	3. Use the features of the Model-View-Controller (MVC) pattern to design and develop web apps.	3, 4, 5
3	4. Use a team approach to develop a web app.	3, 4, 5
3	5. Apply appropriate documentation techniques within web apps	3, 4
4	6. Analyze program code and implement debugging and exception handling techniques.	3, 4
2	7. Discuss the importance of ethics in the computer industry and the role they play in the field of web development.	3

**CORE VALUES**

The Core Values are a set of principles that guide Edison State Community College in creating its educational programs and environment. They will be reflected in every aspect of the College. Students' educational experiences will incorporate the Core Values at all levels, so that a student who completes a degree program at Edison State Community College will not only have been introduced to each value, but will have had them reinforced and refined at every opportunity.

**TOPIC OUTLINE**

1. Introduction to C# and .NET programming
2. Structures, methods, and classes within C# and .NET
3. Web programming with the ASP.NET Core MVC framework
4. One-page web apps
5. Responsive web apps and Bootstrap
6. Data-driven MVC web apps
7. ASP.NET testing and debugging techniques
8. Controllers and routing
9. Razor views
10. Data transfers from controllers
11. Session states and cookies
12. Model binding

13. Data validation
14. Tag helpers