Course Syllabus

Code - Course Title	**AYG118 - Object Oriented Programming**
Course Type	II. SEMESTER
Laboratory + Practice	3+2
ECTS	**5.0**
Language of Instruction	Türkçe
Course Type	Required Courses
Course Instructor(s)	ÖĞR. GÖR. AHMET MÜCAHİD ARVASİ

Mode of Delivery	Face to face
Prerequisites	There are no prerequisites or corequisites for this course.

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Object-Oriented Approach and Introduction to ASP.NET MVC: Lifecycle and Visual Studio IDE Setup	
Week - 2		Routing Mechanism and Controller-Action-Result Flow	
Week - 3		Razor View Engine: Layouts, Partial Views, and Strongly-Typed Views	
Week - 4		Model Binding and Data Validation Operations	
Week - 5		Database Integration: ORM Fundamentals and Entity Framework Code-First Approach	
Week - 6		Data Querying and CRUD Operations with C# LINQ (Language Integrated Query)	
Week - 7		Asynchronous Programming: Using async/await in ASP.NET and Performance Management	
Week - 8		Midterm Exam	
Week - 9		Dependency Injection (DI) and Maintainable Architecture Design	
Week - 10		Client-Side Integration: Interaction with JavaScript, AJAX, and Front-End Libraries	
Week - 11		Security 1: Authentication and Authorization with ASP.NET Identity	
Week - 12		Security 2: Protection Against XSS and CSRF Attacks, Best Practices	
Week - 13		Application Deployment on IIS, Configuration, and Logging	
Week - 14		Advanced Optimizations, Application Performance Settings, and End-of-Term Project Presentations	

Learning Outcomes

#	Learning Outcome
1	Upon successful completion of this course, students will reach the competence to develop end-to-end modern web applications on the Visual Studio IDE by grasping object-oriented programming principles and the lifecycle of the ASP.NET MVC architecture; perform asynchronous (async/await) database integration and CRUD operations using Entity Framework and C# LINQ structures; design dynamic front-ends with the Razor View engine and execute model binding and validation processes; build maintainable systems with dependency injection (DI) and flawlessly apply professional software processes such as authentication (ASP.NET Identity), XSS/CSRF security, and live deployment of the application to the IIS server.

Sustainable Development Goals

No content has been provided.

Course Theme

No content has been provided.

AKTS Workload

Activity	Duration (Hour)	Count	Workload
Teorik Derse Katılım	0	0	0
Sınıf Dışı Çalışma (Ön Hazırlık & Pekiştirme Amaçlı)	0	0	0
Ödevler	0	0	0
Proje - Rapor - Sunum Hazırlama	0	0	0
Ara Sınav Hazırlığı (sınav süresi dahil)	0	0	0
Final Sınavı Hazırlığı (sınav süresi dahil)	0	0	0
Uygulama (Laboratuvar, Müzik/Enstrüman Uygulaması, Atölye/Saha Çalışması vb.)	0	0	0
Staj Uygulaması	0	0	0
		Calculated ECTS	**0**

Assessment Method and Passing Requirements

No content has been provided.