

**Vocational School / Computer Programming**

**2024 - 2025 Academic Year**

**ADVANCED C# APPLICATIONS**

**Syllabus**

| Course Description  |  |                                |                         |                           |      |
|---|--|--------------------------------|-------------------------|---------------------------|------|
| Name  | Code   | Semester                       | T+A Hour                | Credit                    | ECTS |
| ADVANCED C# APPLICATIONS  | BPR2114991   | Fall Semester                  | 3+0                     | 3                         | 5    |
| <b>Prerequisites Courses</b>  |  |                                |                         |                           |      |
| <b>Recommended Elective Courses</b>   |  |                                |                         |                           |      |
| <b>Language of Instruction</b>  | Turkish  |                                |                         |                           |      |
| <b>Course Level</b>   | Short Cycle (Associate's Degree)   |                                |                         |                           |      |
| <b>Course Type</b>  | Elective   |                                |                         |                           |      |
| <b>Course Coordinator</b>   | Lect. Beyza KOYULMUŞ   |                                |                         |                           |      |
| <b>Name of Lecturer(s)</b>  | Lect. Meral ERGÜN  |                                |                         |                           |      |
| <b>Assistant(s)</b>   |  |                                |                         |                           |      |
| <b>Aim</b>  | To develop applications using the C# programming language  |                                |                         |                           |      |
| <b>Course Content</b>   | This course contains; Visual Studio Installation and Introduction, Syntax explanation of C# Language (if, else, array, function etc. a brief summary), Class, Interface and Inheritance, Application Selection, Analysis, Framework Selection and Project Initiation, Database Design and Application Connectivity, Application Development (Web Service), Application Development (WPF), Application Development (WPF), Application Development (Winform), Application Development (Winform), Application Development (Windows Service), Application Development (Windows Service), Refactoring and Publishing the Application, Refactoring and Publishing the Application. |                                |                         |                           |      |
| <b>Course Learning Outcomes</b>   |  |                                | <b>Teaching Methods</b> | <b>Assessment Methods</b> |      |
| Has advanced c# knowledge   |  |                                | 14, 2, 6, 8, 9          | A, E, F, G                |      |
| Develops applications with C# language  |  |                                | 17, 2, 6, 9             | A, E, F                   |      |
| Defines the concepts of class, interface, inheritance   |  |                                | 14, 2, 6, 9             | A, E, F                   |      |
| Develop basic programming skills  |  |                                | 10, 12, 2, 9            | A, E, F, G                |      |
| Designs a database within the application   |  |                                | 10, 12, 14, 16, 2, 9    | A, E, F                   |      |
| <b>Teaching Methods</b>   | 10: Discussion Method, 12: Problem Solving Method, 14: Self Study Method, 16: Question - Answer Technique, 17: Experimental Technique, 2: Project Based Learning Model, 6: Experiential Learning, 8: Flipped Classroom Learning, 9: Lecture Method   |                                |                         |                           |      |
| <b>Assessment Methods</b>   | A: Traditional Written Exam, E: Homework, F: Project Task, G: Quiz   |                                |                         |                           |      |
| <b>Lecture Schedule</b>   |  |                                |                         |                           |      |
| <b>Sequence</b>   | <b>Topics</b>  | <b>Preliminary Preparation</b> |                         |                           |      |
| 1   | Visual Studio Installation and Introduction  |                                |                         |                           |      |
| 2   | Syntax explanation of C# Language (if, else, array, function etc. a brief summary)   |                                |                         |                           |      |
| 3   | Class, Interface and Inheritance   |                                |                         |                           |      |
| 4   | Application Selection, Analysis, Framework Selection and Project Initiation  |                                |                         |                           |      |
| 5   | Database Design and Application Connectivity   |                                |                         |                           |      |
| 6   | Application Development (Web Service)  |                                |                         |                           |      |
| 7   | Application Development (WPF)  |                                |                         |                           |      |
| 8   | Application Development (WPF)  |                                |                         |                           |      |
| 9   | Application Development (Winform)  |                                |                         |                           |      |
| 10  | Application Development (Winform)  |                                |                         |                           |      |
| 11  | Application Development (Windows Service)  |                                |                         |                           |      |
| 12  | Application Development (Windows Service)  |                                |                         |                           |      |
| 13  | Refactoring and Publishing the Application   |                                |                         |                           |      |
| 14  | Refactoring and Publishing the Application   |                                |                         |                           |      |
| <b>Evaluation Methods</b>   |  | <b>Weight(%)</b>               |                         |                           |      |
| Midterm Exam  |  | 40                             |                         |                           |      |
| General Exam  |  | 60                             |                         |                           |      |
| <b>Resources</b>  |  |                                |                         |                           |      |
| <a href="https://docs.microsoft.com/tr-tr/dotnet/csharp/programming-guide/">https://docs.microsoft.com/tr-tr/dotnet/csharp/programming-guide/</a> <a href="http://www.csharpnedir.com/">http://www.csharpnedir.com/</a> |  |                                |                         |                           |      |