## **Course Name: Coding and Computational Thinking**

**Course Code:**

**Course Credit: 0-0-4**

**Course Objectives:**

* Coding and Computational Thinking in this semester, can help students take up programming practice on the platform HackerRank @www.hackerrank.com,
* Register themselves and start practicing various challenges on the platform.
* This, suggestive coding challenges as available on the platform can be taken up by students as follows:

**Course Content**:

**Practical’s**

| **Sl. No.** | **Concept** | **Challenge** | **Difficulty levels** |
| --- | --- | --- | --- |
| 1 | Introduction | Hello World! | Easy |
| 2 | Basic data types | List comprehension | Medium |
| 3 | Operators | Arithmetic operators | Easy |
| 4 | Conditional statements | Condition statements | Easy |
| 5 | Loops | For-loop | Medium |
| 6 | Functions | Function to check leap year or not | Medium |
| 7 | Strings | Word order | Medium |
| 8 | Strings and functions | Capitalize! | Easy |
| 9 | Classes and objects | Find the Torsional angle | Medium |
| 10 | Collections | Collection .OrderedDict() | Easy |

**Course Outcomes:**

After completing this course, students will be able to:

**CO1:** Evaluate the enhanced functionality provided by ASP.NET 4.5 by examining its new features and their potential applications.

**CO2:** Apply knowledge of the ASP.NET life cycle to effectively develop and maintain web applications, ensuring optimal performance and resource utilization.

**CO3:** Construct a sample ASP.NET web application by utilizing the coding model and server controls to create dynamic and interactive web pages.

**CO4:** Implement code sharing techniques to improve code organization, modularity, and reusability in ASP.NET applications.

**CO5:** Develop web applications with efficient handling of states, utilizing techniques such as application state, session state, and view state, to maintain user-specific data and application context.