**COURSE SYLLABUS**

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| **Course Title**：Programming Language | | | | |
| **Credits / Hours** | 3/3 | **Course Number** |  | **□Required ■Elective** |
| **Course Description**  The main objective of this programming language course is to provide students with a solid understanding of the fundamental concepts and syntax. Topics covered include data processing, flow control, object-oriented programming, and extensive use of examples to familiarize students with language syntax and timing. Upon establishing a foundation in programming, students will be introduced to third-party packages, their functions, and usage methods. Students will learn how to apply their programming skills to tasks such as image file manipulation, interface development, chart drawing, and data processing. | | | | |
| **Course Topics** | | | | |
| **Topic** | | **Content** | | |
| Program Introduction and Editor Overview | | 1. Background of Programming Language 2. Types of Editors and Editing Window Environments | | |
| Data Types and Operations | | 1. Data Types, Variables, and Operators 2. Data Storage Containers | | |
| Flow Control | | 1. Selection Structures 2. Loops | | |
| Object-Oriented Programming (OOP) | | 1. Functions 2. Classes and OOP | | |
| Applications | | 1. Image Files 2. Interface Development 3. Chart Drawing 4. Data Processing | | |