**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
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| Data Types and Operations | 1. Data Types, Variables, and Operators
2. Data Storage Containers
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| Flow Control | 1. Selection Structures
2. Loops
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| Object-Oriented Programming (OOP) | 1. Functions
2. Classes and OOP
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| Applications | 1. Image Files
2. Interface Development
3. Chart Drawing
4. Data Processing
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