



## National Taiwan University of Science and Technology

### 2021 Summer Program

### CPM 101 Introduction to Programming

#### Course Outline

**Course Code: CPM 101**

**Instructor: Mo Sha**

**Home Institution: State University of New York at Binghamton**

**Office Hours: TBA and by appointment**

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**Credit: 4**

**Course Description:**

Review of programming concepts, programming environments, debugging tools, large program management and design.

This course is designed to provide a solid foundation and background in basic programming techniques and concepts, as well as an overview of programming in the C language:

- review basic programming concepts and problem solving techniques
- programming in a Linux environment without the help of an IDE
- programming and problem solving in the C language
- overview of simple data structures
- implement algorithms efficiently and correctly
- system tools useful for debugging

**Required Textbooks:**



Brian W. Kernighan and Dennis M. Ritchie. The C Programming Language. 2nd edition, Prentice Hall, 1988 [Free online].

**Grading & Evaluation:**

There will be one exam, 60 points. Exam tests basic programming concepts. Homework accounts 40 points. Homework tests the skill of programming and problem solving.

The grade distribution (90-100%=A, 80-89%=B, 70-79%=C, 60-69%=D; and below 60% = F)

**Course Schedule:**

The course outline is tentative and may be modified accordingly depending on the pace of the class.

**Week1:** Basic C Programming Concepts, C Programming Environment, Variables and Conditionals, and Bitwise Operations.

**Week2:** Preprocessing, Functions, and Arrays.

**Week3:** User-defined Data Types, and Pointers.

**Week4:** Input and Output, and Applications.