



Beijing Jiaotong University

2020 Summer Program

CPM 101 Introduction to Programming

Course Outline

Term: June 01-July 03,2020

Course Code: CPM 101

Instructor: Mo Sha

Home Institution: State University of New York at Binghamton

Office Hours: TBA and by appointment

Email: msha@binghamton.edu

Credit: 4

Class Hours: This course will have 72 class hours, including 40 lecture hours, 10 lecturer office hours, 10-hour TA discussion sessions, 2-hour review sessions, 10-hour extra classes

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:



北京交通大学

BEIJING JIAOTONG UNIVERSITY

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



Grading & Evaluation:

There will be three exams, 20 points each. Exams test 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: Introduction to Basic Programming Concepts: C Programming Language, C Programming Environment, and Variables and Conditionals in C Programming Language.

Week 2: Bitwise Operations, Preprocessing, Functions, and User-defined Data Types in C Programming Language.

Week3: Arrays, Structs, Unions, and Enums in C Programming Language.

Week4: Pointers in C Programming Language.

Week 5: Input and Output in C Programming Language.