

CS46K Programming Languages

Structure and Interpretation of Computer Programs

Syllabus

WELCOME TO CPSC 46K COURSE

DR. ERIC CHOU

IEEE SENIOR MEMBER

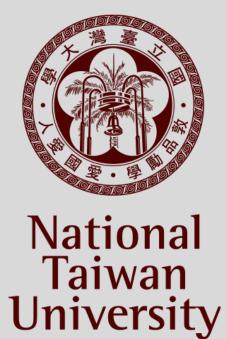
Eric Chou, Ph.D.

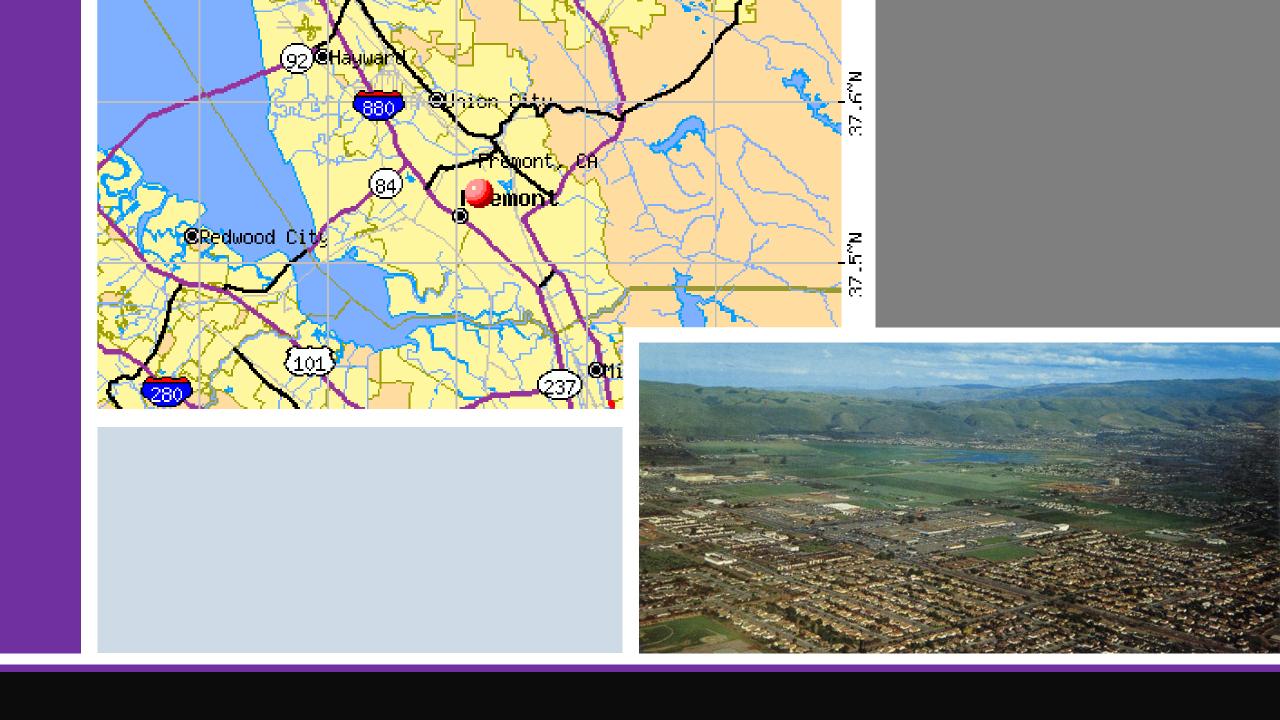


IEEE Senior Member CSTA Member USAT/AAU Coach







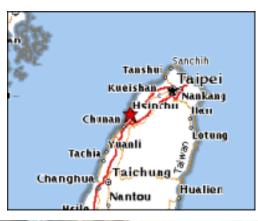




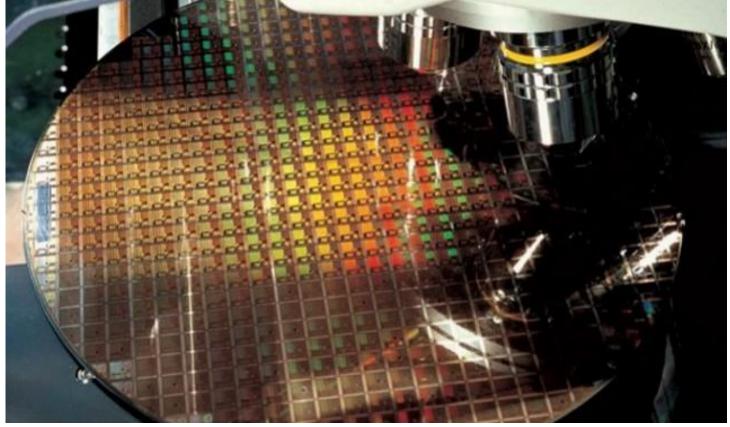












How Programming Languages course is connected to other courses?

Micro-Linux/Unix Computational Compiler Design Processor Lab. Theory Lab. Computer Automata Architecture Programming ISA Languages Operation **Systems** Finite State Computer Data Machine Algorithms Organization Structure RTL Java2 C++ Unix **Assembly** Logic Design Java 1 Scripting

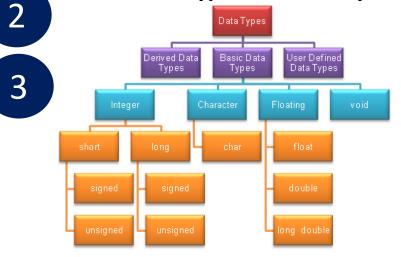


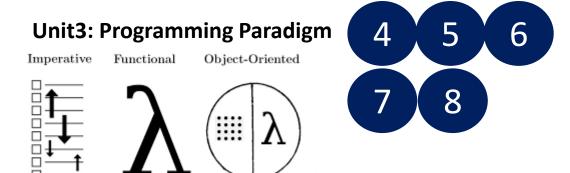
How is this course organized?

Unit 1: Fundamentals

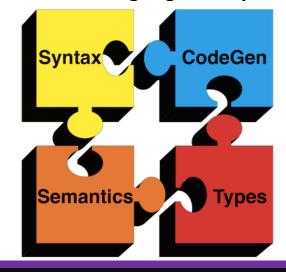


Unit 2:Data Type and Memory Model





Unit4: Language Interpretation



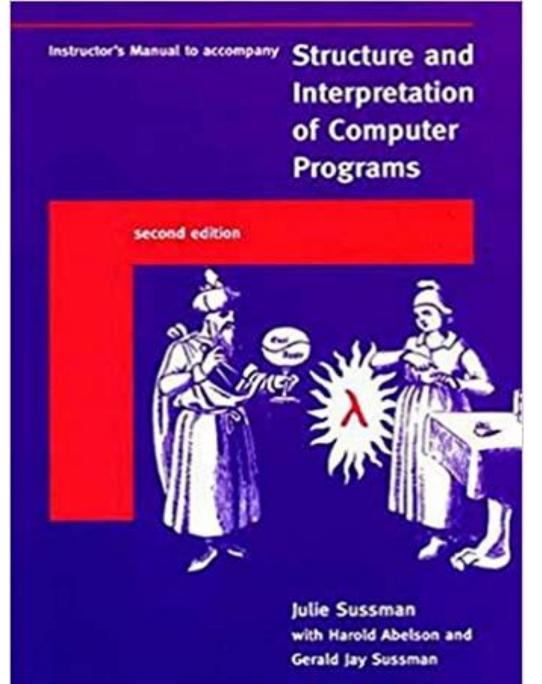




Structure and Interpretation of Computer Program 2nd Edition

By Harold Abelson, Gerald Jay Sussman, Julie Sussman



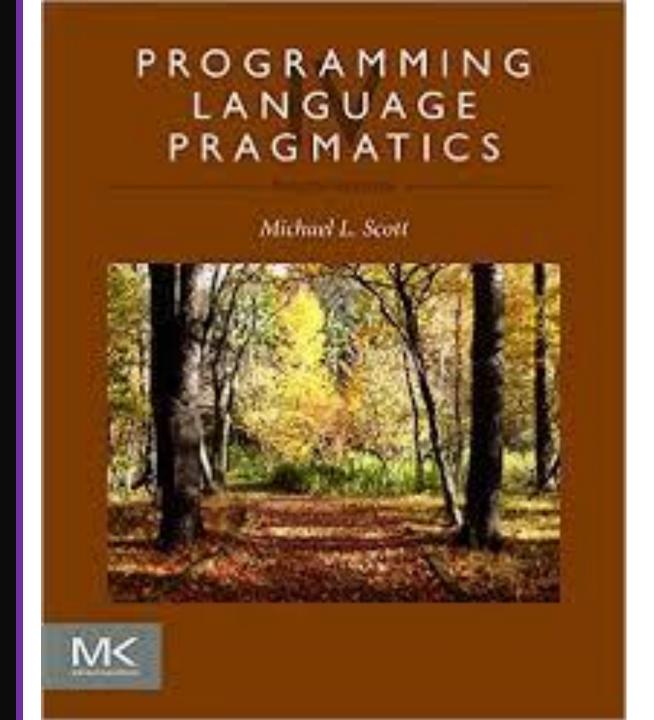


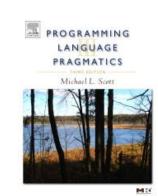


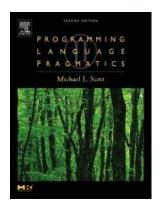
Programming Language Pragmatics 4th Edition

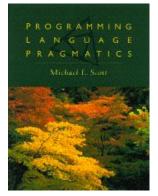
By Michael L. Scott











| CPSC 46000 Course Schedule 2021 - Session 003 | | | | | | |
|---|---|-----------------|----------------------|--------------------------|--------------------------------------|--|
| Date | Topic | Quiz | Assignment | Discussion | Project | |
| W1-01/10-01/16 | Chapter 1 Introduction | 200 pts | | DB1-40 pts | | |
| | | | 150 | DB2-20 pts | | |
| N2-01/17-01/23 | Chapter 2 Data Types and Type Systems | | 150 pts | 20 pts | | |
| <i>N</i> 3-01/24-01.30 | Chapter 3 Name, Scope, Binding and Environment | 200 pts | | 20 pts | | |
| N4-01/31-02/06 | Chapter 4 Imperative Programming (Programming Paradigm) | | 150 pts | 20 pts | Project 1 Due 200 pts | |
| W5-02/07-02/13 | Chapter 5A Object-Oriented Programming - Class Design (Programming Paradigm) | 200 pts | | 20 pts | | |
| N6-02/14-02/20 | Chapter 5B Object-Oriented Programming - Class to Class Relationship (Programming Paradigm) | | 150 pts | 20 pts | | |
| W7-02/21-02/27 | Chapter 6A Functional Programming - Basic Theory (Programming Paradigm) | 200 pts | | 20 pts | | |
| N8-02/28-03/06 | Chapter 6B Functional Programming — Recursion and Tree (Programming Paradigm) | | 150 pts | 20 pts | | |
| W9-03/07-03/13 | Chapter 7: Functional Programming - Scheme Language (Programming Paradigm) | 200 pts | | 20 pts | Project 2 Due 300 pts | |
| W10-03/14-03/20 | Chapter 8A Lexical Analysis – Tokenization | | 150 pts | 20 pts | Proposal 100 pts | |
| N11-03/21-03/27 | Chapter 8B Lexical Analysis — Scanner Design | 200 pts | | 20 pts | | |
| N12-03/28-04/03 | Chapter 9A Syntax Analysis – Context Free Grammar | | 150 pts | 20 pts | | |
| N13-04/04-04/10 | Chapter 9B Syntax Analysis – Parser Design | 200 pts | | 20 pts | | |
| N14-04/11-04/17 | Chapter 10A Interpreter Design - Calculator Design | | 150 pts | 20 pts | | |
| W15-04/18-04/24 | Chapter 10B Interpreter Design — Read Evaluate Print Loop | 200 pts | | 20 pts | | |
| W16-04/25-04/29 | Chapter 10C Scheme Interpreter Design | | 150 pts | DB1-20 pts DB2-40 pts | Final Term Project Report 700 pts | |
| Class Participation | 500 pts (Professor will provide this grade based on your class at | tendance reco | rd, discussion invol | vement, and ma | ny other factors. | |
| Total | 500 pts | 1600 pts | 1200 pts | 400 pts | 1300 pts | |
| Grand Total (Maximun Base Points) | 5000 pts (May Change) All grade will be calculated based on th | e base points o | of 4500 pts | | | |



Grading: Accumulated Point System

- We use an Accumulated Points System for grading.
- For example, quiz 1 is worth of 100 pts with 10 bonus pts. Quiz 2-1 is worth of 50 pts with 5 bonus pts. Term project is worth of 500 pts with 100 bonus pts, and something like that for all assignments.
- At the end of the semester, we sum up all your total points, including bonus points. We divide your total pts with the maximum base pts and get a percentage score. Use the percentage score to decide your course grade. Your total pts may be higher than the maximum base pts due to the bonus pts.



| Score | Grade | | |
|-------------------|-------|--|--|
| 92.95% and above | Α | | |
| 89.95% to 92.94% | A- | | |
| 86.95% to 89.94% | B+ | | |
| 82.95% to 86.94'% | В | | |
| 79.95% to 82.94% | B- | | |
| 76.95% to 79.94% | C+ | | |
| 72.95% to 76.94% | С | | |
| 69.95% to 72.94% | C- | | |
| 59.95% to 69.94% | D | | |
| 59.94% and below | F | | |