

Library and Information Science Practicum
K0006
2 credits (Required)

Fall 2011

INSTRUCTOR: Qiang Ma
OFFICE:
TELEPHONE:
EMAIL:
OFFICE HOURS:

Course Description

Library and Information Science Practicum is an exercise-oriented course. These exercises will help students understand basic concepts and great ideas in computer science introduced in the course of Library and Information Science Skills.

Course Objectives

The objective of this course is to get better understanding of computer science via exercise. By the end of this course students will acquire computer literacy and programming skills.

Course Requirements and Assignments

- (a) Report:
You are required to submit a report for each assigned task.
- (b) You are required to take the course of Library and Information Science Skills in advance.

Evaluation Criteria & Grading

Grading for the course will be determined as follows:

1. Report submission 100%

Additional Information: CLASSROOM POLICIES

1. Please turn off your mobile phones. It is inappropriate to go outside to make calls or to send or read text messages during class.
2. No sleeping in class
3. Plagiarism and Cheating.

Course Materials (REQUIRED READINGS)

Alan W. Biermann and Dietolf Ramm, *Great Ideas in Computer Science with Java*, Massachusetts, The MIT Press, 2001

Course Schedule:

Week 1 Introduction

Topic: Announcements, course description

Week 2 HTML

Topic: Web page

Assignment: write a Web page to introduce yourself.

Week 3 Coding Decision Trees in Java I

Topic: Getting Started in Programming

Assignment: write a “hello world” program in Java

Week 4 Coding Decision Trees in Java II

Topic: Decision tree (I)

Assignment: write a program that implements the book recommendation decision tree.

Week 5 Coding Decision Trees in Java III

Topic: Decision tree (II)

Week 6 Text Manipulation and Algorithm Design

Topic: String and String Manipulation

Assignment: Write a program to manipulate strings in Java.

Week 7 Numerical Computation

Topic: Numerical computation, function.

Assignment: Write a program that can draw a bar graph.

Week 8 Database Programs (I)

Topic: Subroutine and database program

Week 9 Database Program (II)

Topic: Recursion

Assignment: Write a recursion program.

Week 10 Graphics, Classes and Objects

Topic: Drawing graphics using Java

Assignment: Write a program to draw a figure.

Week 11 Program Execution Time I

Topic: quick sort

Assignment: write a quick sort program (with recursion function)

Week 12 Program Execution Time II

Topic: quick sort

Week 13 Computer Communications I

Topic: email

Assignment: write an email to instructor.

Week 14 Computer Communications II

Topic: Web search

Assignment: Survey by using a search engine.

Week 15 Computer Communication III

Topic: Web search

Assignment: Search for academic papers.

Note: This syllabus will be subject to changes and/or revisions