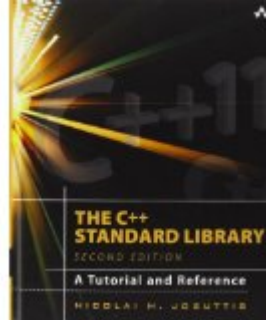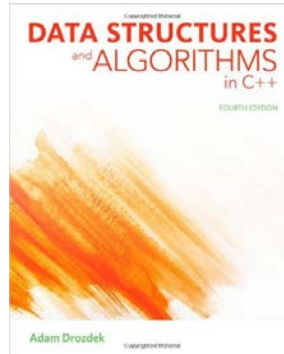# CSCI 340-3 Data Structure & Algorithm Analysis (Spring 2017)

Lecture Time: T/Th 9:30-10:45am
Location: Cole 106 & PM 252
Instructor: Dr. Minmei Hou
Office Hours: T/Th 1:45-3:45pm
            (PM 560)
Email: mhou@niu.edu
 	
TA1: Jyostna Ankam
Office Hour: M/W 4:45-6:45pm,
            F 11am-1pm
Location: 362
Email: z1789593@students.niu.edu
 	
TA2: Aditya Sabbineni
Office Hour: T 2-5pm,
        W 11am-12pm, 2-3pm, Th 2-3pm
Location: 362
Email: z1780715@students.niu.edu
 	
TA3: Khaja Anwar Ali Siddiqui
Office Hours: M/W 12-2pm,
            T/Th 10:50-11:50am
Location: PM 356
Email: z1778291@students.niu.edu
	Textbooks:
	
	The C++ Standard Library: A Tutorial and Reference, Nicolai M. Josuttis, Addison Wesley. (Recommended)
	
	Data Structures and Algorithms in C++ by Adam Drozdek, Cengage Learning. (Recommended)

Course Description:

This course covers the application of analysis and design techniques to nonnumeric algorithms on data structures, and the utilization of algorithmic analysis and design criteria in the selection of methods for data manipulation. The course will be conducted in C++. (Prerequisite: CSCI 241).

Programming Assignments:

Unless otherwise announced, assignments are due at 11:59pm on the due date. If an assignment is submitted late, we will take off 10% for each day – includes weekends and university holidays – that the assignment is late. If the assignment is submitted more than three days late, it will not be accepted and it will be counted as a zero.

All programs have to be tested, debugged, and run on the Computer Science Department's Linux machines: **hopper(turing).cs.niu.edu**. To obtain full credit, programs must (1) work; (2) fulfill the requirements; (3) follow the coding convention; (4) comprehensible to humans. Programs that cannot compile will receive a zero by default. Assignments will be graded using the following generic criteria:

a) Program output and compliance with the stated objectives and specification for the assignment => 60%
b) Structure and efficiency => 20%
c) Documentation => 20%

The requirements on documentation are the same as CSCI 241. Please refer to this website for more details: http://faculty.cs.niu.edu/~mcmahon/CS241/241DocStandards.html.

You must include the following information at the top of each programming assignments:
  a) Your name,
  b) Zid,
  c) Section number,
  d) Assignment number, and
  e) The date the assignment is due.

Exams and Quizzes:
There are three exams. There will not be a comprehensive Final. There are three quizzes. All exams and quizzes are closed book closed notes. Their schedules and percentages are shown below.

Date	Test	Percentage in Overall Grade
Feb. 2 (Th) 10:20-10:45am	Quiz 1	5%
Feb. 21 (Tue) 9:30-10:45am	Exam I	20%
Mar. 9 (Th) 10:20-10:45am	Quiz 2	5%
Mar. 30 (Th) 9:30-10:45am	Exm II	20%
Apr. 20 (Th) 10:20-10:45am	Quiz 3	5%
May 4 (Th) 9:30-10:45am	Exam III	20%
Total		75%

Re-grading Policy:
After the grade of an assignment or exam is available, students have ONE week to request for re-grading. Once the 1-week re-grading period passes, students can never ask for re-grading for this assignment or exam. The TA will grade all assignments within one week starting from the due dates. If you have any questions about grading of your assignment, or if you do not agree with the way your assignment is graded, you must contact your TA first. If you are still not satisfied with your grade, contact the instructor. On reviewing your assignment, your instructor may assign a grade that is higher or lower than the one given by your TA.

Grade Scale:
The letter grade assigned for this course at the end of the semester will be based on 75% of tests and 25% of computer assignments. The scale used will be 90-88-85-80-78-75-70-60-and-below for A, A-, B+, B, B-, C+, C, D, and F.

Tentative Course Schedule:
STL ~ 4.5 weeks
Binary tree and B.S.T. ~ 2.5 weeks
AVL-tree ~ 1 week

Heap ~ 1 week
B-tree ~ 1 week
Hashing ~ 1 week
Graph ~ 3 weeks

Course Documents:
Course documents including assignments, lecture notes, sample source files, and feedback on grading of assignments will be posted on Blackboard.

Use of online forum:
We may use an outside online forum to facilitate discussion after class on topics related to the course. It is prohibited to share solutions to ungraded assignments. See *Academic honesty* below.

Attendance:
You are responsible for all material covered in class. If you miss a class, you must get notes from another student before the next class, *not from the instructor*.

Academic honesty:
You are expected to do your own work on the homework, quizzes and exams. Cheating includes, but is not limited to, copying work from other students, copying work from other textbooks, copying work from the Internet, or helping others to do the same. All cheating will result in the filing of an academic misconduct form and will affect your course grade, with the possibility of failing the course. Note that a second academic misconduct offense may result in your expulsion from the university.

Americans with Disabilities Statement:
If you need an accommodation for this class, please contact the Disability Resource Center as soon as possible. The DRC coordinates accommodations for students with disabilities. It is located on the 4th floor of the Health Services Building, and can be reached at 815-753-1303 or *drc@niu.edu*. Also, please contact me privately as soon as possible so we can discuss your accommodations. The sooner you let us know your needs, the sooner we can assist you in achieving your learning goals in this course.

Useful resource:
http://www.cplusplus.com/reference/