

# CSE5311 Syllabus, Fall 2019

**No:** CSE 5311

**Title:** Design and Analysis of Algorithms

**Instructor:** Dr. Song Jiang, Associate Professor of Computer Science and Engineering

**Office Hours:** 10:30-11:30am M/W at SIER 319 (or by appointment)

**Email:** song.jiang@uta.edu

**Meeting Time:** M/W 1:00pm – 2:20pm

**Meeting Place:** WH 311

**Web Page:** <http://ranger.uta.edu/~sjiang/CSE5311-fall-19/index.htm>

**TA:** Mr. Zongyao Lyu, ERB413, office hour is Tu/Th 3:00pm-4:00pm

## Course Description

This course introduces students to the analysis and design of computer algorithms. The course covers classic problems (e.g., sorting, traveling salesman problem), classic algorithm design strategies (e.g., divide-and-conquer, greedy approaches), and classic algorithms and data structures (e.g., hash tables, Dijkstra's algorithm). It analyzes algorithm complexity using asymptotic notions. It touches issues of tractability, such as "NP-Completeness".

## Prerequisites

- 1) CSE 2320 Algorithms and Data Structures or its equivalents
- 2) Programming skills on a high-level language, such as C and Java.

## Textbook:

Cormen, Thomas, Charles Leiserson, Ronald Rivest, and Clifford Stein. Introduction to Algorithms. 3rd ed. MIT Press, 2009.

## Grading Policy

### Grading scale

- 1) A: [90, 100]
- 2) B: [80, 90)
- 3) C: [70, 80)
- 4) D: [60, 70)
- 5) F: below 60

### Distribution of Points:

- 1) Class attendance: 5%
- 2) Homework assignments: 30%
- 3) Quizzes: 20%
- 4) Midterm exam: 20%
- 5) Final exam: 25%

\* Bonus credits may be offered for voluntarily and correctly answering in-class questions.

## Makeup Exams

No make-up exams will be given except for university sanctioned excused absences. If you miss an exam (for a good reason), it is your responsibility to contact instructor before the exam.

## Late Assignments

Late assignments will be accepted with a 20% penalty applied for each day late up to 2 days. Assignments submitted later than 2 days after the original due time will not be accepted.

## Collaboration Policy

Students are allowed and encouraged to collaborate on homework assignments. However, **You must write up each problem solution by yourself without assistance**, even if you collaborate with others to solve the problem. If you obtain a solution through research (e.g., on the Web), acknowledge your source, but write up the solution in your own words. **It is a violation of this policy to submit a problem solution that you cannot orally explain to the instructor or GTA.**

## **Course Policy**

### **Americans with Disabilities Act**

The University of Texas at Arlington is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 93112 -- The Rehabilitation Act of 1973 as amended. With the passage of new federal legislation entitled Americans With Disabilities Act - (ADA), pursuant to section 504 of The Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens. As a faculty member, I am required by law to provide "reasonable accommodation" to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with informing faculty at the beginning of the semester and in providing authorized documentation through designated administrative channels.

### **Academic Integrity**

It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University. "Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts." (Regents' Rules and Regulations, Part One, Chapter VI, Section 3, Subsection 3.2, Subdivision 3.22)

### **Drop Policy**

Students may drop or swap (concurrently add and drop) classes through MyMav self-service throughout the registration period. After the late-registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw, if he/she does not plan to attend after registering.

### **Emergency Exit Procedures**

Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional sta\_ will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities. How best to exit the building will be explained on day one. (See also [http://www.uta.edu/campus-ops/ehs/fire/Evac\\_Maps\\_Buildings.php](http://www.uta.edu/campus-ops/ehs/fire/Evac_Maps_Buildings.php) and <http://www.uta.edu/police/EvacuationProcedures.pdf>.)

## **Student Support Services**

UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to [toresources@uta.edu](mailto:toresources@uta.edu), or view the information at <http://www.uta.edu/universitycollege/resources/index.php>.

## **Final Review Week**

A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week unless specified in the class syllabi. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. For Fall Semester 2019: We designate November 27 to December 4 as review week.