# San José State University Computer Science Department

CS255, Section 1, Design and Analysis of Algorithms, Spring 2020

# **Course and Contact Information**

Instructor(s): Aikaterini Potika

Office Location:

CS255: Design and Analysis of Algorithms, Spring 2020

- a. Randomized
- b. Parallel
- c. Approximation
- 2. CLO 2. Conduct an amortized analysis.

CLO 3. Explain how above techniques are used in several applications, and describe what benefits they have within those applications

## **Required Texts/Readings**

#### **Textbook**

No required textbook we will use chapters from various books:

- 1. Cormen, Leiserson, Rivest and Stein, Introduction to Algorithms, 3rd Edition MIT Press, 2009. You can find errata (bug reports) for the book http://www.cs.dartmouth.edu/~thc/clrs-bugs/bugs-3e.php.
- 2. Kleinberg and Tardos, Algorithm Design, First edition, Addison Wesley, 2005.
- 3. Dasgupta, Papadimitriou and Vazirani, Algorithms, McGraw-Hill, 2006.

**Midterm exams:** Two written Midterm exams during the semester.

#### **Final Examination or Evaluation**

One final, written, and cumulative exam, split in two parts. The exams contain multiple-choice questions, short answer questions and questions that require pseudocode and/or computations.

## **Grading Information**

No extra point options (only the final exam offers extra points option).

All exams are closed book, and final exam is comprehensive. No make-ups exams except in case of verifiable emergency circumstances.

#### **Determination of Grades**

Final Grade:

25% Project (programming and presentation)

5% Quizzes

10% Homework

30% Midterms (15% each)

30% Final

# CS255: Design and Analysis of Algorithms, Spring 2020 The schedule is subject to change with fair notice and announced on Canvas.

**Course Schedule** 

Lesson	Date	Topic	Assignments