San José State University Mechanical Engineering Department ME 147-02: Dynamic Systems Vibration and Control, Spring 2020

Course and Contact Information

Instructor Professor Long Lu

Email Address Long.Lu@sjsu.edu

Office Location ENG 303 and ENG 164C

Office Hours Tuesday and Thursday 8:00 am-9:00 am at ENG 303

Tuesday and Thursday 12:00 pm-1:00 pm at ENG 164C

Class Days/Time Monday and Wednesday 7:30 pm-8:45 pm

Classroom BBC 324

Prerequisites A grade of "C-" or better in ME 130 (undergraduate students only)

Course Format

The course relies on lecture materials presented in class, and students are strongly encouraged to attend.

Course Materials

Course materials such as the syllabus, homework assignments, and solutions will be available on Canvas.

Course Description

Mathematical representation of dynamic systems. Damped and undamped

Textbooks and Additional References

Required Textbook

Dynamic Systems Vibration and Control by Dr. Fred Barez. Spring 2020. Available at Maple Press, which is located at 330 S. 10th Street, San Jose, CA 95112.

Additional References

- [1] Kelly, S. G. Fundamentals of Mechanical Vibrations. McGraw-Hill.
- [2] Rao, S. S. Mechanical Vibrations. Prentice Hall.
- [3] Dorf, R. C. and Bishop, R. H. Modern Control Systems. Prentice Hall.
- [4] Nise, N. S. Control Systems Engineering. John Wiley & Sons, Inc.
- [5] Ogata, K. Modern Control Engineering. Pearson.

Homework Assignments

Homework assignments are individual effort assignments. Students are encouraged to have intellectual discussions about the homework problems. However, all students must prepare and submit their own solutions to the homework problems which reflect their understanding and problem-solving methodologies. Any form of cheating or plagiarism will not be tolerated. Homework is typically assigned as a set and due to Canvas in one week. No late homework submissions will be accepted.

Examinations

There will be two 75-minute midterm exams and one 135-minute final exam. The final exam will be comprehensive, covering all material presented in class. Please consult the class schedule for the exam dates and times. There will be no make-ups for missed exams, except for medical or other reasons outside the student's control, and such must be documented with a written notice and proof.

Grading Information

Course grade will be out of 1000 points total.

Homework	300 points
Midterm Exam 1	200 points
Midterm Exam 2	200 points
Final Exam	300 points
Total points	1000 points

Determination of Grades

There will be no curving of grades. Final grades will be based on the total points and assigned as follows:

•	Total points	970 points: A	A +	•	690 points	Total points	720 points: C
•	940 points	Total points	970 points: A	•	650 points	Total points	690 points: C-
•	900 points	Total points	940 points: A-	•	620 points	Total points	650 points: D+
•	850 points	Total points	900 points: B+	•	590 points	Total points	620 points: D
•	800 points	Total points	850 points: B	•	550 points	Total points	590 points: D-
•	760 points	Total points	800 points: B-	•	Total points	550 points:	F
•	720 points	Total points	760 points: C+				

Class Protocol

Class participation and attendance are strongly encouraged. Use of cell-phones is not allowed. Laptop computers and tablets are allowed for taking lecture notes in a non-distracting manner only.

University Policies

Per University Policy S16-9, university-wide p