Instructor: Fai Ma
Office: 6127 Etcheverry Hall
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Consultation Hours: M 5.30-6.30 pm, WF 2.30-3.30 pm

Class Location and Website
MWF 4-5 pm, Etcheverry 1165; course website at http://bcourses.berkeley.edu

Course Prerequisite
ME 133 Mechanical Vibrations

Textbook

Supplementary Reference

Course Contents
Response of discrete and continuous dynamical systems, damped and undamped, to harmonic and general time-dependent loading. Convolution integrals and Fourier and Laplace transform methods. Lagrange’s equations; eigensolutions; orthogonality; generalized coordinates; nonreciprocal and degenerate systems; Rayleigh’s quotient.

Class Rules
Homework problems will be assigned from time to time. Two progress examinations are planned (the final examination will not be given on Thursday, 12/13/2018, 8-11 pm as originally scheduled). Examinations must be taken as scheduled. Approximate contributions to the final grade are as follows:

<table>
<thead>
<tr>
<th>Examination</th>
<th>Percentage</th>
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<tr>
<td>First Midterm on Friday, 10/5/2018</td>
<td>30%</td>
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<tr>
<td>Second Midterm on Friday, 11/2/2018</td>
<td>30%</td>
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<tr>
<td>Final Examination on Friday, 11/30/2018</td>
<td>40%</td>
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Course Objectives
To give a compact, consistent, and reasonably connected account of the theory of linear vibration at the advanced level. A secondary purpose is to survey some topics of contemporary research. Applications will be mentioned whenever feasible.
Additional References


