ChE-626 Course Outline Fall 2015

Text: Applied Mathematical Methods for Chemical Engineers 2nd ED. Norman W. Loney Author

Please monitor moodle to view/download course information

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Additional Reading material & Acceptable Software:
Software:
  1. Excel for Scientists and Engineers – Numerical Methods
  2. Polymath
  3. MATLAB®

MATERIAL TO BE COVERED

1. Sept. 1st: Introduction and Course Overview
2. Sept. 8th: Introduction to common Methods, Practices and some Project Assignments.
3. Sept. 15th: start Finite Difference Approximations (as applied to ordinary differential Equations Chap 9)
4. Sept. 22rd: continue Finite Difference Approximations (applied to Partial differential Equations Chap 9)
5. Sept. 29th: Sturm- Liouville Problems – Chapter four
6. Oct. 6th: Sturm- Liouville Problems – Chapter four continued
7. Oct. 13th: Exam I: Start Fourier Series and Integrals – Chapter five
9. Nov. 3rd: Exam II
10. Nov. 10th: Due to the Annual Meeting of AIChE from 11/09 – 11/12/2015, Nov. 10th class will be made up on Sat 11/14 at a mutually convenient time


12. Nov. 24th: Chap7 Cont’d.

13. Dec. 1st: Review (incl. project defense)

14. Dec. 8th: All Projects Due

   December 15th final Exam????

Exam Policies – 2 (8.5 X 11”) pages of hand written notes; Sample problems and programmable calculators (incl.cell phones) are not allowed in the exams but open text books are allowed.

Grading:

<table>
<thead>
<tr>
<th>Course</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Exam I</td>
<td>20%</td>
</tr>
<tr>
<td>Exam II</td>
<td>30%</td>
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<tr>
<td>Projects</td>
<td>25%</td>
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<tr>
<td>Comprehensive Final</td>
<td>25%</td>
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</tbody>
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A = 90 or better
B+ = 85 - 89
B = 80 – 84
C+ = 75 – 79
C = 70 – 74
F = 69 or less.

http://www.njit.edu/registrar/calendars/2015Fall.php

Office hour

   Tuesday 4:40 PM – 5:45 PM

   or by appointment (if it turns out that the common office hour is inconvenient)