COURSE CALENDAR DESCRIPTION


Prerequisites: LE/EECS 1011 3.00; SC/MATH 1025 3.00; SC/MATH 2015 3.00; SC/PHYS 1800 3.00 and SC/PHYS 1801 3.00 or SC/PHYS 1010 6.00, or a minimum grade of C in SC/PHYS 1410 6.00.

INSTRUCTOR(S)

<table>
<thead>
<tr>
<th>Name</th>
<th>Section / Format / Term</th>
<th>Contact Email</th>
<th>Contact Phone</th>
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<tbody>
<tr>
<td>Gordon, Mark D</td>
<td>Sec. M / LECT / W</td>
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TOPICS AND CONCEPTS

For more information on this course, please visit the following website: https://learn.lassonde.yorku.ca/

Topics for this course include:

- The Continuum Concept
- Index Notation
- Tensors
- Kinematics
- Strain
- Stress
- Equilibrium
- Solid Mechanics
- Fluid Dynamics

LIST OF LEARNING OUTCOMES AND EXAMPLES OF

1. Apply the basic concepts and general principles of Cartesian tensor algebra to analyze mechanics of continuum materials.
2. Analyze the kinematics of a continuum using the infinitesimal strain tensor.
3. Apply the conservation principles of mass and momentum in the mechanics of continua.
4. Select and apply the appropriate constitutive and principle equations to solve simple problems associated with solid and/or fluid mechanics.
5. Experimentally analyze stress and strain components in axial and bending loading conditions and verify them theoretically.
ADDITIONAL INFORMATION

Suggested Text:


References:

- Temple, G., Cartesian Tensors, an Introduction, (Dover).

ACADEMIC INTEGRITY LINKS

- Senate Policy on Academic Honesty - http://secretariat-policies.info.yorku.ca/policies/academic-honesty-senate-policy-on/
- Academic Integrity - http://lassonde.yorku.ca/academic-integrity

STUDENT LINKS

- Student Rights and Responsibilities - http://oscr.students.uit.yorku.ca/student-conduct
- Religious Observance - https://w2prod.sis.yorku.ca/Apps/WebObjects/cdm.woa/wa/regobs
- Counselling and Disability Services - http://cds.info.yorku.ca/

Many courses utilize Moodle, York University’s course website system. If your course is using Moodle, click here to access it.

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