

THREE RIVERS COMMUNITY COLLEGE  
COURSE OUTLINE

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Course Number/Title: MEC K250    Strength of Materials

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Lecture 3 hrs      Laboratory 0 hrs      Credit 3 hrs      Contact 3 hrs

Course Description: Instill knowledge of moments of inertia torsion, bending, and columns.

Method: Lectures, homework and quizzes

Text: Applied Strength of Materials, Mott

Prerequisites: MEC K114 Co-Requisites: MEC K252

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COURSE TOPICS/CONTENT

	HOURS
1. Concepts of Stress	5
2. Stress and Strain	5
3. Torsion	5
4. Bending	5
5. Combined Stresses	8
6. Beam Deflection	5
7. Columns	3
8. Fatigue Stress Risers in Rotating Equipment	7
9. Video Presentations	2
TOTAL:	45

Date: February 12, 2008

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Program Coordinator: Robert Lantz

Department Chairperson: Tony Benoit

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Measurable Objectives

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1. Student should be able to create a Free Body from a given problem.
2. Student should understand how loads imposed upon structures induce stresses.
3. Be able to apply appropriate stress formula.
4. Determine deflections due to loading and temperature changes.
5. Be able to decipher multiple stresses imposed upon structures and obtain principle stresses and max shear stresses.