THREE RIVERS COMMUNITY COLLEGE
COURSE OUTLINE

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Course Number/Title: MEC K252 Strength of Materials Laboratory

Lecture 0 hrs Laboratory 2 hrs Credit 1 hrs Contact 2 hrs

Course Description: Select labs to demonstrate the science of strength of materials.

Method: Laboratory experiments

Text: None

Prerequisites: MEC K114 Co-Requisites: MEC K250

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COURSE TOPICS/CONTENT

| | HOURS |
|---|---|
| 1. Static Equilibrium of Beams | 4 |
| 2. Axial Elasticity | 2 |
| 3. Use of Strain Gages to Measure Axial Strain | 4 |
| 4. Internal Moments in Beams | 2 |
| 5. Torsion of Shapes | 4 |
| 6. Use of Straw Gages to Measure Torsional Strain | 2 |
| 7. Beam Deflections | 4 |
| 8. Use of Strain Gages to Measure Strain in Beams | 4 |
| 9. Failure of Columns | 4 |
| TOTAL: | 30 |

Date: April 2, 2008

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Program Coordinator: *Robert Lantz*

Department Chairperson: *Anthony Benoit*

Course Number/Title: MEC K252 Strength of Materials Laboratory

Measurable Objectives

By undertaking experiments in moments, reactions, elasticity, internal moments, torsion, beam deflections and columns, the student will better understand the principals of strength of materials.