

THREE RIVERS COMMUNITY COLLEGE
COURSE OUTLINE

Course Number/Title: MEC K275 Thermal Science Lab

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

Course Description: Selected labs from the fields of fluid mechanics, thermodynamics, and heat transfer

Method: Laboratory experiments

Text: None

Prerequisites: MAT-K254 Co-Requisites: MEC-K241 or MEC-K270 or MEC-K272

COURSE TOPICS/CONTENT	HOURS
1. Laboratory Introduction	2
2. Venturi Meter	2
3. Orifice Meter	2
4. Pressure Drop in Lines	2
5. Pressure Drop Across Valves	2
6. Pressure Drop Around Corners	2
7. Friction Factor Versus Reynold's Number	2
8. Diesel Engine Dynamometer Test	2
9. Tank Flow	2
10. Heat Transfer	2
11. Steam Turbine	2
12. Steady State Conduction	2
13. Pump Lab	2
14. Pump Efficiency	2
15. Flow Calibration	2
TOTAL HOURS	30

Date: February 12, 2008

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Program Coordinator: Robert Lantz

Department Chairperson: Tony Benoit

Continuation Sheet No 2 of 2

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Measurable Objectives

By performing successful experiments from the enclosed list, competency will be demonstrated.