LANEY COLLEGE
Environmental Control Technology
Spring Semester

Course: Testing Adjusting and Balancing HVAC Systems
Course Number/code: ECT 212 L1390
Time: Tuesdays, Lecture7:00 PM – 8:30 PM, Lab 8:30 PM – 10:00 PM
Instructor: Greg Egelston
Office: B151
Phone: (510) 464-3292 **Units:** 2 units.

Course Description: Introduction to the theory and practice necessary to properly test, adjust and balance HVAC systems including air and water systems and develop proficiency in the use of instruments used to measure and adjust the flow of air and water.

Student Outcomes:

1. Demonstrate the ability to measure and adjust system airflow using anemometers, balometers, pitot tubes and fan curves
2. Demonstrate the ability to measure and control system water flows using circuit setters, flowmeters and pump curves.
3. Demonstrate the ability to prepare typical balancing documents and compile a system balance report
4. Calculate the air/water energy balance of simple hydronic heating system.

Prerequisites: ECT 20 - HVAC Principles and Practices

Text: "HVAC Testing, Adjusting, and Balancing MANUAL", *3rd Edition*, by John Gladstone and W. Bevirt, sponsored by the National Environmental Balancing Bureau, McGraw Hill - Publisher

Supplies Needed: Calculator, graph paper, lab notebook

Recommended Tools: screwdriver(s)

Evaluation: Grades for the class will be assigned in accordance with the number of points earned for various class activities. The maximum number of points for each activity will be assigned as indicated below.

1. Class Attendance and Participation	30 points
2. Midterm Assessment #1	10 points
3. Midterm Assessment #2	10 points
4. Lab Exercises	20 points
5. Final Exam	30 points
Total:	**100 points**

Safety: Students are expected to obey safety practices typical for a classroom and laboratory environment.

Attendance: Students may be dropped from the course if the number of absences exceeds four weeks worth of class meetings. However, extenuating circumstances may warrant consideration.

Note: Cellular phone use is not allowed in class.