**Course Prefix, Number, and Title: EIT 348 Temperature Measurement and Control**

**Section Number(s): 1002**

**Department: Instrumentation CTE**

**Instructor: Bryan Asusta**

**Academic Year: 2019-2020**

**Semester: Spring**

**Is this a GenEd class? Yes\_\_\_ No\_X\_**

**Complete and submit your assessment report electronically to your department chair. As needed, please attach supporting documents and/or a narrative description of the assessment activities. You may use as many or as few outcomes as necessary.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Class/Course Outcomes** | **Assessment Measures** | **Assessment Results** | **Outcome Results Analysis** |
| In the boxes below, summarize the outcomes assessed in your class or course during the last year*.* If this is a GenEd class, include the appropriate GenEd objectives. | In the boxes below, summarize the methods used to assess course outcomes during the last year. Include the criterion you’ll use to judge whether or not students have achieved the expected outcome. | In the boxes below, summarize the results of your assessment activities during the last year. Include your judgement as to whether or not the criterion for student achievement has been met. | In the boxes below, please reflect on this outcome’s results and summarize how you plan to use the results to improve student learning. |
| Outcome #1:  Understand cold-junction problems, Thermowells, proper grounding & shielding, capillary type. | Assessment Measure:  Practical Test  Criterion for achievement:  100 % passing rate with a passing grade of C- or better | Results:  100 % students successfully completed lab activities  Criterion Met: Yes/No  Yes | 1. Results Analysis:  Good labs  2. Action Plan:  Have more labs pertaining directly with grounding and shielding and the affects of not properly grounding and shielding cables. |
| Outcome #2:  Be able to read and understand data sheets on test equipment required to maintain accurate temperature measurement | Assessment Measure:  Written Test  Criterion for achievement:  100% Passing rate with a passing grade of C- or better | Results:  80% Pass  Criterion Met: Yes/No  No | 1. Results Analysis  The students did not spend enough time on data sheets. We should add another activity or lab to this the following year.  2. Action Plan:  Incorporate further examples on data sheets. |
| Outcome #3:  Demonstrate the factors that affect the stability of a control loop. | Assessment Measure:  Practical Test  Criterion for achievement:  100% Passing rate with a passing grade of C- or better | Results:  100% Pass  Criterion Met: Yes/No  Yes | 1. Results Analysis  Incorporated some good lab scenarios in this year’s class to fully understated control loops.  2. Action Plan: |
| Outcome #4:  Define feedback in a process control loop and explain its characteristics. | Assessment Measure:  Written Test  Criterion for achievement:  100% Passing rate with a passing grade of C- or better | Results:  100% Pass  Criterion Met: Yes/No  Yes | 1. Results Analysis:  2. Action Plan: |
| Outcome #5:  Demonstrate and understand three control modes: Proportional, Integral, and Derivative (PID), and show what each mode contributes to the stability of a control loop. | Assessment Measure:  Practical Test  Criterion for achievement:  100% Passing rate with a passing grade of C- or better | Results:  100% Pass  Criterion Met: Yes/No  Yes | 1. Results Analysis:  2. Action Plan: |
| Outcome #6:  Demonstrate the ability to configure/calibrate a temperature controller by using an appropriate checklist and acceptable methodology. Utilize this controller in a live temperature control loop. | Assessment Measure:  Practical Test  Criterion for achievement:  100% Passing rate with a passing grade of C- or better | Results:  100% Pass  Criterion Met: Yes/No  Yes | 1. Results Analysis:  2. Action Plan: |

**Notes:**

This class is currently co-taught by Jim and me. I am going to work with Jim and submit to C&A changes where we could absorb the credits of this class in the other four classes and migrate the outcomes of this course to some classes in the Fall semester.

I have reviewed this report:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Department Chair Dean

Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_­\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Vice President of Academic Affairs and Student Services

Date\_\_\_\_\_\_\_\_\_\_\_­\_\_\_\_