

Student Learning Outcomes for CDI 51

Geometric Dimensioning and Tolerancing

Team Members:

Team Leader:

[Louis Gary Lamit](#) (8627) in CDI

Other members:

1. [Max Gilleland](#) (x5578) CDI
2. [Robert Benzio](#) (x) CDI

Additional team members/notes about team:

Additional Notes:

Outcomes:

Outcome 1 Phase I: Statement

Functioning as a drafter/designer, the student will create an engineering document package which complies with industry-defined standards and shall include the following:
Components modeled using CAD design tools in accordance with ASME standards.*
Engineering drawings compliant with ASME Y14.5.

Outcome 1 Phase II: Assessment Strategy Used:

Assessment Quarter: Spring 2010
Assessors: Louis Gary Lamit Robert Benzio
Assessment Tools: • •
Sections being assessed: 64Z

Outcome 1 Phase III: Reflect & Enhance

Number of people involved in Phase III: 19

Changes:

Methods:

Catalyst course management system used to interface and track (grade log and activity log) all aspects of the class including: * Ten Chapter Lesson (10 chapters) used for establishing the understanding of the meaning of the symbols are used in Geometric Dimensioning and Tolerancing. * Ten Chapter print reading tests used to gauge the students understanding of the corresponding chapter lesson material. * Ten Chapter tests used to gauge the students understanding of the corresponding chapter lesson material. * 31 drawings used to gauge the students understanding of Geometric Dimensioning and Tolerancing and how it's to be put to print as they would find in the workplace. * On demand lecture for every individual Lesson (10) incorporated into the class with catalyst tracking of student access and viewing. * Comprehensive Final Exam used to measure the students understanding of Geometric Dimensioning and Tolerancing. * Final Student Documentation package as defined in the SLO used to gather and document all work accomplished during the class.

Findings and Conclusions:

A large portion of the students completed most for all requirements. Students who did not complete all the requirements did very well up to the assignments they completed but did not do all the requirements for the class because of their time constraints and inability to attend sufficient classes for personal and professional reasons. Looking back at the class, the ones that put in the time and effort did very well in class. As comparing this class, which was strictly a online class this quarter to the previous regular classes I have taught. I can see at the online class had a slightly higher drop rate than the regular class. This is probably due to it being an online class and the students thinking that this is currently easy subject to comprehend. Overall I believe this first strictly online geometric dimensioning and tolerancing class was successful. 19 students completed class and received grade. Activity report percentage: * 6 at +94% complete (32% of class) * 1 at 80% complete (5% of class) * 1 at 70% complete (5% of class) * 6 at 30%- 50% complete (32% of class) * 5 at 0% complete (26% of class)

Enhancement (Planned Actions)

Part I:

1. Rewording of test questions with
2. Reduction of number of test questions in some chapters by selecting the most relevant and useful questions.
3. Reduce the number of drawings per week or supply the 3-D CAD models to reduce the students workload.

(Reducing the number of drawings per week wouldn't tell selecting most relevant drawings that would give the student the most experience using the geometric dimensioning and tolerancing functions of the CAD software. Students as a whole exceeded my proficiency and student success expectations. Students who were unable to participate the 48 hours required for the work because of family, personal, or work related duties were the only students who did not complete the work and receive a grade ranging from C to A depending on their level of knowledge demonstrated in the work that they did complete.

Part II:

No changes planned or required

