Student Outcomes and Performance Indicators – Faculty Assessment
Department of Engineering & Engineering Technology
College of Professional Studies
Metropolitan State University of Denver

CET 3135 (7)

MECHANICS OF MATERIALS with LABORATORY

Semester/year

Specific, *Measurable* Student Behavioral Learning Objectives:
Upon completion of this course the student should be able to:

1. Apply classical methods of calculus, principles of statics and materials properties to solve statically indeterminate mechanics problems.
2. Apply theory of indeterminate mechanics to axial, torsional and transversal loaded elements of machines and structures in stress calculations.
3. Calculate deformation and internal stresses in externally loaded structural and machine elements.
4. Operate laboratory equipment to determine stress and strain relationships for structural members loaded axially and transversally.
5. Conduct civil engineering experiments in a team setting.
6. Analyze and interpret the resulting data of the experiments.
7. Create a complete formal laboratory report describing the particular experiment, summarizing the results and analyzing the implications of the test.

ABET	**Competency Area**	**Data Collection**
c	an ability to conduct standard tests and measurements; to conduct, analyze, and interpret experiments; and to apply experimental results to improve processes	
e	an ability to function effectively as a member or leader on a technical team	

ADDITIONAL COMMENTS:

PLEASE:

1. MAKE SURE ALL REFERENCES ARE IN Y DRIVE;
2. SAVE THIS FILE UNDER THE COURSE NUMBER, FOR EXAMPLE: CET1000 SPRING 2018.DOC;
3. SEND YOUR REPORT TO LINDA;

_____ _____

<*Name*> <Date>

Following tables define the Performance Indicators for each of the Student Outcomes a through k

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ABET c: an ability to conduct standard tests and measurements; to conduct, analyze, and interpret experiments; and to apply experimental results to improve processes				
	Unsatisfactory	Developing	Satisfactory	Exemplary
Select, set up, and use equipment for experiments	Unable to identify proper equipment	Unable to use most of the identified equipment	Able to use the equipment under supervision	Conduct test and measurement properly and safely
Select, set up, and use data collection and analysis software	Not understanding the needs of data collection	Unable to use most of the identified software	Able to use the software under supervision	Properly use of the identified software
Understand the results	Not understanding the results	Some understanding of the results	Understand the results with help	Properly interpret and present the results

ABET e: an ability to function effectively as a member or leader on a technical team				
	Unsatisfactory	Developing	Satisfactory	Exemplary
Fulfill Team Role's Duties	Does not perform any duties of assigned team role.	Performs very little duties.	Performs nearly all duties.	Performs all duties of assigned team role.
Share in work of team	Always relies on others to do the work.	Rarely does the assigned work--often needs reminding.	Usually does the assigned work--rarely needs reminding.	Always does the assigned work without having to be reminded.
Listen to Other Teammates	Is always talking--never allows anyone else to speak.	Usually doing most of the talking—rarely allows others to speak.	Listens, but sometimes talks too much.	Listens and speaks a fair amount.