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

MET 4010 (7)

ADVANCED MANUFACTURING TECHNOLOGY

Semester/year

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

1. Design computer control programming for applications in electro-mechanical, pneumatic-mechanical and hydraulic-mechanical machine elements.
2. Apply the logistics associated with the total micro monitor process control system.
3. Use the computer and control programming language developed exclusively for industrial control applications.
4. Inspect design through computer technique and object identification technique.
5. Interface robots to the types of industrial applications they are capable of performing.
6. Relate the basics of fiber optics and its application in industrial process.
7. Integrate robotics design concepts as applicable to various manufacturing process and process control systems.

ABET	**Competency Area**	**Data Collection**
a	an ability to select and apply the knowledge, techniques, skills, and modern tools of the discipline to broadly-defined engineering technology activities	
d	an ability to design systems, components, or processes for broadly-defined engineering technology problems appropriate to program educational objectives	
e	an ability to function effectively as a member or leader on a technical team	
i	an understanding of and a commitment to address professional and ethical responsibilities including a respect for diversity	

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

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

ABET a: an ability to select and apply the knowledge, techniques, skills, and modern tools of the discipline to broadly-defined engineering technology activities				
	Unsatisfactory	Developing	Satisfactory	Exemplary
Identify, formulate, and solve engineering technology problems	Unable to identify the engineering problem	Able to identify and formulate but unable to obtain a solution	70% partial solutions or better	Proper solution and discussions for the solution
Use appropriate skills of the profession to conduct qualitative analysis	Unaware of needs for qualitative analysis	Working on the skills to properly use the identified tools	Use proper skills to obtain 70% partial solution or better	Proficient in using selected skills for qualitative analysis
Use appropriate tools of the profession to conduct quantitative analysis	Unable to identify tool for the needed analysis	Working on the skills to properly use the identified tools	Use proper tools to obtain 70% partial solution or better	Proficient in using selected tools for quantitative analysis

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

ABET d: an ability to design systems, components, or processes for broadly-defined engineering technology problems appropriate to program educational objectives				
	Unsatisfactory	Developing	Satisfactory	Exemplary
Establish criteria for engineering technology design problems	Unable to develop or understand design criteria	Understand the design criteria but unable to develop	Understand and developed some criteria in assigned problem	Proper solutions obtained
Develop designs of products, systems, or processes that respond to authentic needs	Unaware of or not understanding the needs	Knowledge or skill set not enough for solving the engineering technology problem	70% partial solution or better	Proper solutions obtained
Take into account the social, economic, or environmental constraints on the design	Unaware of the impacts the issues	Some awareness, but not clear	Understand the issues but unable to incorporate into the design problem	Proper considerations discussed and planned ahead

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.

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

ABET i: an understanding of and a commitment to address professional and ethical responsibilities including a respect for diversity				
	Unsatisfactory	Developing	Satisfactory	Exemplary
Know the code of ethics for the related profession	Unaware of the code of conduct in profession	In progress of learning	Understand	Apply properly
Demonstrate positive attitude towards others	Show no respect to others	Understanding the importance of proper professional conduct	Proper professional conduct	Demonstrate positive attitude towards others
Show awareness for diverse ideas and cultural differences	Unaware of diversity and cultural differences	Learning in progress such as taking MC courses	Successfully completed some MC and diversity related courses	Fully aware and respectable for diversity and cultural differences