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

CPE 3500 (4)

Semiconductor Device Fundamentals

Semester/year

Course Category and Related Student Learning Outcomes:

1. Understand the fundamentals of semiconductor physics, materials, devices and fabrication technology
2. Learn semiconductor band theory, semiconductor materials and statistics, pn junction, bipolar transistor, heterojunction, Schottky junction and solar cells
3. Design the device for advanced VLSI technology from its physical structure, accurate modeling, manufacturability and applications
4. Deal with technical concerns in current VLSI industry by using computer simulation and experimental data

ABET	Competency Area	Data Collection
b	an ability to design and conduct experiments, as well as to analyze and interpret data	
j	a knowledge of contemporary issues	
k	an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice	

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;

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<*Name*> <Date>

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

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ABET b: an ability to design and conduct experiments, as well as to analyze and interpret data				
	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 j: a knowledge of contemporary issues				
	Unsatisfactory	Developing	Satisfactory	Exemplary

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ABET k: an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice				
	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