

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

EET 1150 (5)

CIRCUITS II

Semester/year

Specific, Measurable Student Behavioral Learning Objectives:

Upon completion of this course the student should be able to:

1. Utilize Ohm's law, Kirchoffs Voltage and Current Laws, Superposition, Thevenin and Norton conversions to analyze single and three phase AC circuits using phasors.
2. Determine the theoretical value for current, voltage, power and impedance in various series, parallel and series/parallel circuits consisting of transformers, and impedance components utilizing calculators and computer simulation programs for single and three phase AC circuits.
3. Determine the impact of various frequencies on impedance circuits related to resonance and cutoff frequencies and develop the appropriate transfer function.
4. Work with a team to construct circuits and validate theoretical findings utilizing analog and digital meters, function generators, oscilloscopes, power supplies, breadboards and electrical components
5. Write laboratory finding in a concise document comparing theoretical and actual data with computer generated models.

ABET	Competency Area	Data Collection
b	an ability to select and apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies	
e	an ability to function effectively as a member or leader on a technical team	
g	an ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature	

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 b: an ability to select and apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies				
	Unsatisfactory	Developing	Satisfactory	Exemplary
Use science, math, and engineering concepts to conduct qualitative analysis	Unaware of needs for qualitative analysis	Working on the knowledge and skills for qualitative analysis	Proper analysis with 70% partial solution or better	Proficient in using selected tools for qualitative analysis
Use science, math, and engineering concepts to conduct quantitative analysis	Unable to identify tool for the needed quantitative analysis	Working on the knowledge and skills for quantitative analysis	Proper analysis with 70% partial solution or better	Proficient in using selected tools for quantitative analysis
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

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.

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ABET g: an ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature				
	Unsatisfactory	Developing	Satisfactory	Exemplary
Use proper format and grammar in written and oral communications	Unaware of the need of communications in engineering technology practice	Unable to use format and grammar for effective communication	Able to communicate in technical environment	Present properly to both non-technical and technical audience
Use appropriate graphics in oral and written presentations	No understanding of importance of graphics	Unable to produce all graphics needed	Some applications of graphics in presentation	Presentation with proper graphical aids
Paraphrase technical and non-technical literature satisfactorily	Unaware of the need in technical literature	Unable to identify and research for proper literature	Some literature research	Present properly to both non-technical and technical audience