

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

**EET 4620 (10)**

**ADVANCED COMMUNICATION SYSTEMS**

**Semester/year**

**Specific, Measurable Student Behavioral Learning Objectives:**

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

1. Analyze and design HF, VHF, UHF, and microwave systems.
2. Analyze spread spectrum systems.
3. Analyze optical, video, and satellite communication systems.
4. Evaluate analog and digital cellular and PCS communications system performance.
5. Solve wireless transmission problems including quantization of system, performance such as bit error rate, processing gain, bandwidth utilization, link budgets, path loss, minimum CII system requirements, probability of coverage.
6. Analyze the main wireless technology standards of current and future wireless communications systems.
7. Solve satellite orbital mechanics problems.
8. Solve power problems relating to various satellite configurations.
9. Compute path dispersion losses, noise figure, dynamic range, signal to noise ratios, C/N, GIT, and other system performance criteria.
10. Compute earth station antenna azimuth and elevation angles and be able to determine satellite visibility.

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	

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>

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 <Date>

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

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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