

BMEG 203 – Biomedical Engineering Seminar

Student Outcome f: an understanding of professional and ethical responsibility

Performance Criterion #1: *Students understand and apply biomedical engineering ethical responsibility*

Scoring Rubric:

Aspect	1: Not proficient	2: Progressing to proficiency	3: Proficient	4: Superior proficiency
Ethical choices with relation to application of biomedical engineering	Students fail to recognize ethical dilemmas as related to applications of biomedical engineering techniques or strategies	Students recognize ethical dilemmas as related to applications of biomedical engineering techniques or strategies; however fail to understand their implications	Use input from constituencies to discuss implementation of biomedical engineering principles for improvement of human health care	Use engineering codes of ethics, input from constituencies and common sense to evaluate choices using formal ethical criteria related to application of biomedical engineering principles

Student Outcome j: a knowledge of contemporary issues.

Performance Criterion #1: *Students explain and discuss what biomedical engineers do in their professional activities*

Scoring Rubric:

Aspect	1: Not proficient	2: Progressing to proficiency	3: Proficient	4: Superior proficiency
Summarize the field of biomedical engineering including areas of focus and potential of	summary does not cover areas of focus in BMEG or the potential for advances in the field.	summary covers areas of focus in BMEG <u>or</u> the potential for advances in the field	summary includes lists for areas of focus in BMEG and the potential for advances in the field.	summary includes detailed information about areas of focus in BMEG and potential for advances in the field

advances in the field				
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Explain career paths in the field of biomedical engineering and how to follow those paths	explanation not given or specific career paths are not identified	career paths are identified but no explanation of the career or how to reach it are given	career paths are identified with information about what needs to be completed to reach that type of career	career paths are explained with examples and detailed information about the path to follow to reach the career of choice
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Performance Criterion #2: *Students can explain the need and the process of biomedical engineering device regulation.*

Scoring Rubric:

Aspect	1: Not proficient	2: Progressing to proficiency	3: Proficient	4: Superior proficiency
Explain why FDA approval is needed for drug or device implementation using goals of the FDA (protect and advance public health)	explanation not given	explanation given but does not include goals of the FDA	explanation briefly mentions both FDA goals or covers only one: protection or advancement	explanation gives good detail on how the approval for devices impacts public health, both protection and advancement
Describe the FDA approval process for drugs	no description of the process given	description includes no details, only a flowchart (or bullet points) of steps	description contains some detail about each of the steps in the process	process is well explained to include specific forms, reviews and timelines
Describe the FDA approval process for medical devices	no description of the process given	description includes no details, only a flowchart (or	description contains some detail about each of	process is well explained to include specific forms,

		bullet points) of steps	the steps in the process	reviews and timelines
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