

BMEG 421 – Biomedical Engineering Seminar and Journal Club

Student Outcome f: an understanding of professional and ethical responsibility.

Performance Criterion #1: *Address professional and ethical issues associated with the biomedical engineering problem being solved*

Scoring Rubric:

Aspect	1: Not proficient	2: Progressing to proficiency	3: Proficient	4: Superior proficiency
Identify professional considerations for biomedical engineering solutions	total ignorance of professional considerations	professional considerations are given but not relevant	nearly all relevant professional considerations identified	identified professional considerations are correct, complete, and relevant
Identify ethical considerations for biomedical engineering solutions	total ignorance of ethical considerations	ethical considerations are given but not relevant	nearly all relevant ethical considerations identified	identified ethical considerations are correct, complete, and relevant

Student Outcome g: an ability to communicate effectively.

Performance Criterion #1: *Students can create a clear and concise presentation on a biomedical engineering topic, and present to an audience with limited knowledge about the area.*

Scoring Rubric:

Aspect	1: Not proficient	2: Progressing to proficiency	3: Proficient	4: Superior proficiency
Organization of slides	Totally disjointed, no rhyme or reason for slide placement. Time of talk exceedingly long/short.	Slides make sense in the order given. May have to backtrack once.	Logical order, but lacks a compelling theme.	Crystal clear, tells story from beginning to end.
Quality of slides	Way too much/little information. Hard	Simple and clear design and layout, a few	Sharp and to the point, one or two tiny	Excellent formatting and wording,

	to read and understand due to choice of design.	minor issues on the slides.	errors at most.	thorough but concise.
Quality of figures	Very hard to read, bad formatting and use of symbols.	Most figures are legible, some hard to grasp or read.	Quite legible, maybe a misused symbol or two.	Well placed and formatted, clearly enhances the talk.
Presentation mechanics	Quite fidgety, unintelligible speech, poor eye contact, simply reading slides.	Slightly nervous, maybe a few stumbles. Not a bad job.	Confident speech and delivery, maybe a slight glitch.	Superior voice and mannerisms, an excellent speech.

Performance Criterion #2: *Students can demonstrate proficient oral and written communications skills through presentations and written documents.*

Scoring Rubric:

Aspect	1: Not proficient	2: Progressing to proficiency	3: Proficient	4: Superior proficiency
Quality of slides	Way too much/little information. Hard to read and understand due to choice of design.	Simple and clear design and layout, a few minor issues on the slides.	Sharp and to the point, one or two tiny errors at most.	Excellent formatting and wording, thorough but concise.
Quality of figures	Very hard to read, bad formatting and use of symbols.	Most figures are legible, some hard to grasp or read.	Quite legible, maybe a misused symbol or two.	Well placed and formatted, clearly enhances the talk.
Organization of slides	Totally disjointed, no rhyme or reason for slide placement. Time of talk exceedingly long/short.	Slides make sense in the order given. May have to backtrack once.	Logical order, but lacks a compelling theme.	Crystal clear, tells story from beginning to end.
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	exceedingly long/short.	backtrack once.		
Presentation mechanics	Quite fidgety, unintelligible speech, poor eye contact, simply reading slides.	Slightly nervous, maybe a few stumbles. Not a bad job.	Confident speech and delivery, maybe a slight glitch.	Superior voice and mannerisms, an excellent speech.

Student Outcome h: the broad education necessary to understand the impact of engineering solutions in a global and societal context.

Performance Criterion #1: *Students can identify current bottle neck limitations in the area of biomedical engineering and highlight the scientific breakthrough that will be needed in order to advance this profession.*

Scoring Rubric:

Aspect	1: Not proficient	2: Progressing to proficiency	3: Proficient	4: Superior proficiency
Understanding of biomedical engineering and associated issues such as ethics, regulation and clinical applications	Does not demonstrate understanding of applications, regulation, and ethics of biomedical engineering.	Demonstrates somewhat comprehensive understanding of the biomedical engineering relevant issues.	Demonstrates full comprehension of the biomedical engineering relevant issues.	Demonstrates comprehensive understanding of the biomedical engineering relevant issues and relates them to real world observations.
Critical thinking	Not present or very poor: just regurgitates the results of the paper/research.	Understands the results well enough, can critique some aspects of the work.	Full comprehension of results, good critique offered.	Well above average: insightful and complete. Better ideas than the paper.

Student Outcome j: A knowledge of contemporary issues.

Performance Criterion #1: *Students can identify current bottle neck limitations in the area of biomedical engineering and highlight the scientific breakthrough that will be needed in order to advance this profession*

Scoring Rubric:

Aspect	1: Not proficient	2: Progressing to proficiency	3: Proficient	4: Superior proficiency
Understanding of biomedical engineering and associated issues such as ethics, regulation and clinical applications	Does not demonstrate understanding of applications, regulation, and ethics of biomedical engineering.	Demonstrates somewhat comprehensive understanding of the biomedical engineering relevant issues.	Demonstrates full comprehension of the biomedical engineering relevant issues.	Demonstrates comprehensive understanding of the biomedical engineering relevant issues and relates them to real world observations.
Critical thinking	Not present or very poor: just regurgitates the results of the paper/research.	Understands the results well enough, can critique some aspects of the work.	Full comprehension of results, good critique offered.	Well above average: insightful and complete. Better ideas than the paper.