

Rubric for Evaluating Written Evidence of Learning Outcomes

Strong written communication skills

Is the student able to write clearly and confidently about the relationship between science, technology and society? Is the student's work stylistically capable? Does it contain clear theses, sufficient supporting evidence, appropriate organization, effectively structured sentences and evidence an awareness of audience? Would you be willing to interview this student for a job based on their written communication skills?

	Skilled	Able	Weak	Absent
Thesis	Interesting and full development of a thesis that fits with the purpose of the assignment.	Competent development of a thesis that fits with the purpose of the assignment.	Thesis is weak, unclear, overly broad or doesn't fit with the purpose of the assignment	There is no thesis. The student's work seems to lack any purpose.
Ideas, Support and Evidence	Original and thought provoking support for ideas. Support is specific and relevant.	Sufficient, specific, relevant support for ideas.	Insufficient, non-specific or irrelevant support for ideas.	Clear absence of support or evidence for ideas
Structure and Organization	Organization is sequential and appropriate for the ideas developed. Paragraphs are well developed and ideas are linked smoothly via effective transitions.	Consistent attempts to organize around a thesis. Competent, though not sophisticated paragraph structure. Transitions are present, but not smooth or effective.	Some attempts to organize around a thesis, but not consistently so. Paragraphs are simple and formulaic. Transitions are apparent, but are illogical and confusing.	No organization apparent. Paragraph structure is weak. Transitions are missing. Paragraphs stand alone from each other.
Audience Awareness and Tone	Work has tone and voice that are clear and appropriate for the distinct audience the work is intended for.	Work has a consistent tone that is clear and appropriate for a general audience.	Work has a tone and voice that is inappropriate for either the assignment's distinctive audience or a general audience. Ex: tone too conversational	Work has no clear tone or voice. It is unclear who the student is writing to.
Mechanics	Free of any spelling, punctuation or capitalization errors. Formatting and presentation are appropriate for the assignment.	Contains only occasional spelling, punctuation or capitalization errors. Few formatting errors. Errors appear due to carelessness.	Contains many spelling, punctuation or capitalization errors. Many formatting errors. Errors are consistent.	Contains enough spelling, punctuation, capitalization and formatting errors to hinder readability.

A sense of personal and social responsibility for their engineering, scientific or other professional practice

Does the student’s work reflect an awareness of the ways in which his/her own engineering practice is shaped by the relationship between science, engineering and society? Has the student shown evidence of taking this relationship into account in his/her own engineering design and coursework? Is there evidence that the student understands the importance of ethically considering what individuals, groups and activities would likely be affected by their engineering practice?

	Displays a Strong Sense	Displays Some Sense	Displays a Marginal Sense	Does Not Display
Recognizing Influences on own Professional Practice	Student’s work directly addresses social, cultural, political forces and their influence on his/her engineering practice, including examples from his/her professional work.	Student’s work displays a consistent awareness of how social, cultural and political forces impact his/her professional practice, but does not include examples from his/her own work.	Student’s work displays a minimal awareness of how social, cultural or political forces could impact his/her professional practice	Student does not mention any awareness of how social, cultural and political forces impact his/her professional practice.
Applying Social Knowledge to own Professional Practice	Student’s work directly addresses the importance of utilizing social, cultural and political knowledge in his/her professional practice and provides examples of having done so.	Student’s work displays a consistent awareness of the importance of utilizing social cultural and political knowledge in his/her professional practice, but does not provide examples of having done so.	Student’s work displays a minimal awareness of the importance of utilizing social, cultural and political knowledge in his/her professional practice.	Student does not display any awareness of the importance of utilizing social, cultural and political knowledge in his/her professional practice.
Ethical Reasoning and Professional Practice	Student’s work displays critical thinking regarding the ethics of engineering and relates this to his/her own professional practice.	Student’s work directly addresses the ethics of engineering but does not relate this to his/her own professional practice.	Students work displays a minimal awareness of ethical reasoning regarding professional practice.	Student does not display any awareness of the ethics of engineering or it’s importance to their own professional practice.

Exposure to the social sciences and humanities

Is the student familiar with disciplines outside of the College of Engineering? Does the written work convey knowledge of or interest in knowledge disciplines from the social sciences and humanities? Has the student actively engaged in coursework offered in the social sciences and humanities?

	Displays a strong sense	Displays some sense	Displays a marginal sense	Does not display
Discipline Familiarity-Breadth	Student's work addresses ideas from multiple disciplines outside of engineering and identifies where those ideas came from.	Student's work addresses ideas from one discipline outside of engineering and identifies where those ideas came from OR Student's work addresses ideas from multiple disciplines, but does not identify where those ideas came from	Student's work addresses ideas from one discipline from outside of engineering and does not identify where those ideas came from.	Students work does not mention any ideas from outside of engineering.
Discipline Familiarity-Depth	Students' work engages critically with ideas from multiple disciplines outside of engineering	Student's work engages critically with ideas from one discipline outside of engineering.	Student's work mentions ideas from one or more disciplines outside of engineering but does not engage critically with them.	Students work does not mention any ideas from outside of engineering.

The capacity for interdisciplinary, critical thinking about the relationship between science, engineering and society

Does the student’s work display an understanding of the ways in which engineering practice is shaped by the relationship between science, engineering and society? Does the student appear aware of the affect that cultural, political and social forces have on the practice of engineering and science in general? Does the student appear aware of the ways in which engineer practices shape culture, politics and society?

	Displays a Strong Sense	Displays Some Sense	Displays Min Sense	Does Not Display
Recognizing Influences on Engineering Practice	Student’s work engages critically with social, cultural, political forces and how they influence engineering practice.	Student’s work displays a consistent awareness of social, cultural and political forces and how they impact engineering practice, but does display critical engagement with these ideas.	Student’s work displays a minimal awareness of how social, cultural or political forces could impact engineering practice	Student does not mention how social, cultural and political forces could impact engineering practice.
Applying Social Knowledge to own Engineering Practice	Student’s work strongly argues the importance of utilizing social, cultural and political knowledge in engineering practice.	Student’s work displays a consistent awareness of the importance of utilizing social cultural and political knowledge in his/her engineering practice, but does not provide compelling evidence.	Student’s work displays a minimal awareness of the importance of utilizing social, cultural and political knowledge in engineering practice.	Student does not display any awareness of the importance of utilizing social, cultural and political knowledge in engineering practice.
Awareness of Engineering Impacts	Students work engages critically with the engineering’s potential influences on society.	Student’s work displays a consistent awareness of the engineering’s potential influences on society, but does	Student’s work displays a minimal awareness of the engineering’s potential influences on society.	Student’s work displays no awareness of engineering’s potential influences on society.

		not engage critically with this topic.		
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