

ENGR 401 Assignment 2

Proposal Writing

Due Date: 15 May 2017, 24:00 (midnight)

Value: 20% of final grade (marks returned will be out of 100).

Workload Estimate: 7-8 hours (10 hours maximum)

Length Limits: 1200 words (1000 words minimum, 1500 words maximum).

Submission: ECS Submission System.

A good idea remains just that until it can be turned into a product, and the transition from idea to product requires that the engineer produce clear proposals demonstrating the idea's practicality and economic feasibility. Writing is a key element in this process.

– Ron E. Smelser in “How to Build Better Engineers: A Practical Approach to the Mechanics of Text”

Proposal writing is a fact of an engineer's working life. Your second assignment is to write a short proposal for the topic of your final written report and oral presentation. The proposal could be for a case study, or a business case, or supporting documentation for a pitch for funding (which you would deliver as your oral presentation), or a non-technical report for management or the general public.

The only requirement is that the final report needs to be non-technical in nature.

This assignment primarily addresses Course Learning Objective 1:

1. Communicate at a professional level orally and in writing, to a varied range of audiences,

but also, depending on the topic chosen, addresses one or more of Course Learning Objectives 2, 3 and 5:

2. Assess the social, cultural, legal, health & safety, environmental and sustainability implications of their engineering work, and identify and justify specific actions to address issues;
3. Understand the need and role of ethics and professional standards in business and industry from the personal level to the corporate level, and be able to identify and justify ethical courses of action;
5. Understand the benefits, risks, theory and processes of innovation in practice, and be able apply this knowledge to their work.

You are expected to appropriately support your proposal with a short literature review, with citations. The scheme required is the IEEE Citation Reference scheme, available from <https://www.ieee.org/documents/ieeecitationref.pdf> (PDF; 451 KB).

The marking scheme appears on the following page, with a supplemental guide to written communication assessment. Please submit your assignment as a PDF file with file name convention ENGR 401 Assignment 2 *firstname lastname*.pdf where *firstname* and *lastname* are your first and last names.

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Proposal Marking Scheme

[Please Note: under moderation; subject to minor change]

Trait	Excellent	Good	Satisfactory	Unsatisfactory
Introduction of proposal purpose and significance. [20 marks]	Clear introduction, introducing the purpose, scope, and method of your proposal and a statement of the significance of the topic.	An appropriate introduction that defines the proposal and outlines the relevant sections	An introduction that outlines the proposal but with relevant sections not fully developed.	Vague introduction that fails to articulate what the proposal is about and how it will be developed.
Literature review [20 marks]	Six quality scholarly sources; clearly summarized; with a clear connection to the proposed topic.	Appropriate references that support the topic well.	Some references that vaguely support the topic.	No references or references not particularly relevant to the topic.
Body [20 marks]	A sophisticated statement of what you propose to write, how you will write it and how your work will contribute—what new knowledge, products or services it might provide and the social or commercial impact. A well thought out plan with a risk assessment.	A clear statement of what is proposed and how it will be constructed. Much consideration given to appropriate factors such as impact and risk.	An appropriate statement outlining the body of work and how it will be laid out. Minimal consideration to appropriate factors.	A vague statement about the work and how it will be executed.
Links to course lectures, readings and/or additional research [20 marks]	Connections between the issues identified and the course concepts are appropriate and powerful, the research is relevant and thoughtful.	The issues identified are appropriately and convincingly linked to lectures, readings and/or additional research.	Makes appropriate but vague connections between identified issues and concepts studied in the course, limited research.	Makes superficial, inappropriate or no connections between issues identified and course concepts, no supplemental research
Written Communication [20 marks]	See the supplementary guide on the next page.	See the supplementary guide on the next page.	See the supplementary guide on the next page.	See the supplementary guide on the next page.

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Written Communication Marking Scheme

[Please Note: under moderation; subject to minor change]

Trait	Excellent	Good	Satisfactory	Unsatisfactory
Technical writing skills: Spelling, capitalisation, punctuation, grammar, general proofreading.	No spelling errors, no discernible flaws in punctuation, grammar and sentence construction.	Very few spelling errors, correct punctuation, grammatically correct, complete sentences.	Lapses in spelling, punctuation and grammar, but not enough to seriously distract the reader.	Numerous spelling errors, absent or incorrect punctuation, and/or severe grammatical errors.
Vocabulary: Originality, breadth, variety and appropriateness.	Sophisticated use of vocabulary, choice of words and discipline-specific terminology.	Consistently appropriate vocabulary, consistently correct word choice and discipline-specific terminology.	Generally appropriate vocabulary; not overly repetitive. Generally chooses correct words and terminology.	Excessively limited, inappropriate or repetitive vocabulary. Misuses words and discipline-specific terminology.
Structure and style: Document, paragraph and sentence structure, flow and layout, appropriate to audience.	Elegant and thoughtful sentence and paragraph construction, which enhances the reader's understanding.	Variety of sentence construction; logical flow; style and structure appropriate for task, audience and genre.	Not overly repetitive; some variety in sentence construction; generally flows well; some awareness of audience and genre.	Repetitive and/or simplistic sentence structure; consistently disjointed, lack of flow; style/structure inappropriate for audience.
Clarity and conciseness: Answers the question, succinct, appropriate complexity.	Displays clarity of thought through a cogent argument focussed on the question, enlightening the reader.	Argument is effectively conveyed, addressing the question in an easily understood manner.	Argument reasonably clear; occasionally misses the point but answers the question; not excessively elaborate or complicated.	Main point and/or argument confused or unclear. Irrelevant information, no transition between ideas. Unclear conclusion.
Academic integrity and Appropriate use of referencing	Sources and citations are carefully chosen to concisely support the work, and the IEEE referencing system is used skilfully and effectively.	Others' work acknowledged in-text and/or with citations. Uses IEEE referencing system consistently and correctly.	Other sources appear to be acknowledged. Uses IEEE referencing system but with occasional errors or omissions.	Work appears to be not adequately referenced or attributed. Does not attempt to use IEEE referencing system.