

## Assessment Rubric for Proposal Presentation and Final Paper

Criteria	Emerging	Developing	Mastering
<b>Proposal Presentation</b>			
<b>Quality</b>	Presentation is unstructured and incoherent, use of black board is poor. Discussion lacks depth. Enthusiasm is lacking.	Organisation of presentation is coherent. Use of black board is appropriate. Discussion addresses some aspects of topic. Enthusiasm is present.	Presentation is well organised and use of black board is appropriate and clear. Discussion is at an appropriate level. Enthusiasm is energizing.
<b>Understanding</b>	Limited evidence of understanding presented. Rudimentary description of phenomenon; beginnings of physical insight, no mathematical detail.	Physical understanding of subject is progressing. Mathematical derivations are mostly complete.	Mastery of chosen topic is demonstrated through physical arguments and mathematical derivations.
<b>Final Paper</b>			
<b>Organization</b>	Paper is disorganised. Ideas do not flow, and information is not logically presented.	Paper follows a reasonable structure. Ideas are mostly linked together. Information is present but not always logically arranged.	Paper is logically organised and straightforward to follow. All relevant information is presented in appropriate locations.
<b>Clarity</b>	Content is difficult to follow or incomplete. Derivations are insufficiently detailed. Relevant physics is hard to comprehend.	Content is readable and usually thorough. Derivations are mostly complete. Relevant physics is explained.	Content is clear and readable. Derivations can be followed, approximations are detailed, and relevant physics is clearly described.
<b>Subject Mastery</b>	Little evidence of understanding is present. Results are reproduced without assimilation of ideas. Paper is of limited educational value.	A few aspects of the subject are investigated. Ideas are assimilated into a physical understanding. Paper could be used to learn the basics of the subject.	Topic is well researched, and evidence of a thorough understanding is present. Many aspects of the subject are investigated. Paper could be used to learn about the subject.
<b>Writing</b>	Lack of appropriate language. Many spelling or grammar issues. Errors in sentence structure are a distraction.	Word choice is mostly appropriate. Occasional errors in spelling or grammar. Some sentences are awkwardly constructed.	Paper is written with appropriate language. Spelling and grammar are correct. Sentences are well-phrased.
<b>Partner Feedback</b>	Feedback not given, or only superficial feedback provided; feedback is not timely.	Feedback is provided on some aspects of the paper, including understanding of material and clarity of presentation. Some suggestions are made.	Comprehensive feedback and suggestions are provided on many aspects of the final paper, including understanding of material, clarity of presentation, organisation, and formatting.
<b>Use of LaTeX</b>	No use or LaTeX, or rudimentary use of typesetting capabilities.	Paper is presented using some functionality of LaTeX.	Paper is near publication quality in terms of typesetting presentation.
<b>References and Citations</b>	Sources are uncited, cited poorly, or are of dubious quality. Ideas and claims are not always referenced.	Sources are cited appropriately. Ideas and claims and findings are usually referenced.	Sources are cited appropriately. Corroborating evidence and sources are also provided. Ideas and claims are always referenced.