PhD or MS/MEng (thesis/project) Outcomes Assessment Rubric

Student: _____   Date: _____

Outcome	Unacceptable (1)	Marginal (2)	Acceptable (3)	Exceptional (4)	Rating
1) Knowledge of engineering/science fundamentals appropriate for discipline and specialization	No evidence of fundamental knowledge.	Rudimentary knowledge exhibited in written document and oral presentation.	Knowledge of fundamentals evident in written and oral presentation.	Demonstrates mastery of appropriate fundamentals for the discipline.	
2) Depth of knowledge in specialization	Only rudimentary knowledge in specialization.	Some knowledge of specialization evidenced.	Demonstrates appropriate level of knowledge in specialization.	Demonstrates knowledge of specialization comparable to experienced practitioner.	
3) Ability to independently conduct research	No evidence of independent planning and execution of research program.	Some useful research results with some evidence of independent execution.	Carried out good research program, achieved useful and novel results.	Excellent planning and execution of research program.	
4) Ability to perform critical review of literature in area of specialization	Rudimentary literature review.	Some review of the literature, but little critical evaluation.	Comprehensive review of literature with evidence of critical thinking about further needs for research in this area.	Extensive review of literature with critical evaluation comparable to a review article in literature.	
5) Able to communicate effectively	Dissertation/thesis poorly written. Oral exam not well planned or presented. Unable to answer questions.	Dissertation/thesis mostly clearly written. Presented main points clearly. Able to answer most questions.	Well written and well organized dissertation/thesis. Well organized and clear presentation. Good ability to answer questions.	Excellent job of writing and organizing dissertation/thesis. Well organized talk. Able to respond to questions and facilitate further discussion of results.	
Overall Assessment	**Unacceptable** (1)	**Marginal** (2)	**Acceptable** (3)	**Exceptional** (4)	

Comments:

What curricular or process changes can you suggest to improve student performance in these areas?