

## Doctor of Engineering Program Assessment of Student Academic Achievement Objectives

This evaluation is to be completed by each member of the student's doctoral dissertation committee, upon completion of the defense. Return form to the department secretary. Please check the appropriate box in each row.

The objectives are to develop in the student:	Level of Achievement		
Objectives/Criteria for Evaluation	Exemplary	Satisfactory	Unacceptable
1. A deeper, more general, and more fundamental understanding of the principles underlying a particular field of study, as well as those underlying related fields.			
a. Depth of knowledge	<input type="checkbox"/> Student shows excellent understanding of fundamental principles directly related to the project.	<input type="checkbox"/> Student displays good understanding of fundamentals directly related to project.	<input type="checkbox"/> Understanding of fundamental principles directly related to the project is weak.
b. Breadth of knowledge	<input type="checkbox"/> Student shows good understanding of related principles.	<input type="checkbox"/> Knowledge of related subjects is adequate.	<input type="checkbox"/> Knowledge of related subjects is weak.
2. A familiarity with advanced methods of analysis and synthesis that are more powerful and more generally applicable than those taught at the undergraduate level.	<input type="checkbox"/> Student is competent in the most advanced techniques needed for research in the field. Student can synthesize and integrate results and relate them to the hypothesis.	<input type="checkbox"/> Student is competent in experimental/analytical techniques needed for research in the field. Student can accept or reject hypotheses.	<input type="checkbox"/> Student is competent in analytical techniques, with little understanding of the principles underlying the techniques. Student has difficulty in addressing the hypothesis.
3. The ability to independently read and understand the significance and limitations of the relevant literature.	<input type="checkbox"/> Student actively searches all works directly and indirectly related to the project. Student can identify the strengths and limitations of various methods.	<input type="checkbox"/> Student has read the literature related to project, and understands how project fits into the literature.	<input type="checkbox"/> Student has read only some of the articles related to the project.
4. The ability to formulate, initiate, and complete new and innovative research projects that contribute to the advancement of the field.			
a. Impact on advancement of the field	<input type="checkbox"/> Work has strong impact on the field.	<input type="checkbox"/> Work has incremental impact on field.	<input type="checkbox"/> Work has no impact on the field.
b. Adequacy of the scope of the research	<input type="checkbox"/> Work has examined many facets of the problem.	<input type="checkbox"/> Amount of work is adequate.	<input type="checkbox"/> Amount of work done is inadequate.
c. Adequacy of the depth of the research	<input type="checkbox"/> Work has probed deeply the principles behind the problem.	<input type="checkbox"/> Work answers the basic questions of the problem.	<input type="checkbox"/> Work only touched the surface of the problem.

d. Novelty of the research	<input type="checkbox"/> Dissertation is an innovative idea from the student; student shows creativity in designing experiments and solving problems.	<input type="checkbox"/> Student contributed originality to designing experiments and solving problems.	<input type="checkbox"/> The student followed directions from his/her advisor.
<b>5. To communicate effectively in written and oral form.</b>			
a. Quality of the writing style	<input type="checkbox"/> Written sentences are complete and grammatical, and they flow together easily. Words are chosen for their precise meaning.	<input type="checkbox"/> Writing is grammatically correct. Paragraphs and sentences may not flow together perfectly.	<input type="checkbox"/> Writing contains grammatical errors.
b. Organization of the written dissertation	<input type="checkbox"/> Dissertation is logically organized and easy to follow.	<input type="checkbox"/> Dissertation organization is clear.	<input type="checkbox"/> Dissertation is poorly organized.
c. Organization of the presentation	<input type="checkbox"/> Presentation is clear, logical and organized. Listener can follow line of reasoning. Pacing is correct for the audience.	<input type="checkbox"/> Listener can follow and understand the presentation.	<input type="checkbox"/> Talk is poorly organized. Speaker jumps around from topic to topic.
d. Clarity of language usage	<input type="checkbox"/> Speaker is comfortable in front of the group and can be heard by all.	<input type="checkbox"/> Grammatical errors and use of slang are evident. Some sentences may be incomplete.	<input type="checkbox"/> Speaker is difficult to understand or hear.
e. Ability to answer questions	<input type="checkbox"/> Answered questions directly and clearly.	<input type="checkbox"/> Student can answer questions, but with some difficulty.	<input type="checkbox"/> Students had difficulty understanding questions and answering clearly.
f. Quality of slides	<input type="checkbox"/> Slides enhance the presentation and are prepared in a professional manner.	<input type="checkbox"/> Slides are adequate for the presentation.	<input type="checkbox"/> Slides are inadequate (writing too small, too much or too little information per slide).
<b>6. Do application-oriented research of an inter-disciplinary nature</b>			
a. Application-oriented research	<input type="checkbox"/> Research has practical applications that are clear.	<input type="checkbox"/> Research may have practical applications.	<input type="checkbox"/> The practical application of this work is completely unclear.
b. Interdisciplinary nature of research	<input type="checkbox"/> Research required significant level of knowledge of and interaction with people from more than one discipline	<input type="checkbox"/> Research involved some level of work or interaction with more than one discipline.	<input type="checkbox"/> Research was completely within one discipline.

**To be answered by the research advisor only:**

Have any papers resulting from the dissertation work been accepted for publication in peer-reviewed journals? \_\_\_\_ Yes \_\_\_\_ No