

Mechanical Engineering Department

University information web site (<http://www.sacs.vt.edu/>)
Procedure to Evaluate the Progress of Doctoral Graduate Students

The procedure to evaluate the progress of graduate students is as follows:

1. The form will be sent electronically to the student and the examination committee prior to the exam.
2. The student will fill out the top portion of the form and bring it to the examination.
3. The committee must discuss and complete the form by marking the appropriate number in the box for each category after the exam.
4. The chair signs the form on behalf of the committee.
5. The entire form must be completed independent of the exam outcome (i.e., even if the student failed).
6. The advisor must return the signed form to the ME Graduate Student Office within two days.

A: Productivity Information: To be completed by the student

Number while completing the current degree	# Published/accepted	# Submitted	# Preparing to submit
Journal papers			
Conference proceedings			

Student Name: _____

Date: _____

Student's Plan upon Graduation: Employer: _____

Position: _____

Committee Members: _____

B. Exam Performance: To be completed by the Examination Committee

Chair Signature _____

B1. Preliminary Exam: Final Exam:

Student Qualities
<p>Student demonstrates technical competence in chosen area of study</p> <p>1 Poor: Specific position (perspective, thesis/hypothesis) is stated, but is simplistic and obvious.</p> <p>2 Fair: Specific position (perspective, thesis/hypothesis) acknowledges different sides of an issue.</p> <p>3 Good: Specific position (perspective, thesis/hypothesis) takes into account the complexities of an issue. Others' points of view are acknowledged within position (perspective, thesis/hypothesis).</p> <p>4 Very Good: Specific position (perspective, thesis/ hypothesis) is imaginative, taking into account the complexities of an issue. Limits of position (perspective, thesis/ hypothesis) are acknowledged. Others' points of view are synthesized within position (perspective, thesis/hypothesis).</p> <p>5 Excellent: Specific position is imaginative, taking into account the complexities of an issue. Limits of position are acknowledged. Others' points of view are synthesized within position. Conclusions and related outcomes (consequences and implications) are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order.</p>
<p>Student demonstrates effective oral communication skills.</p> <p>1 Poor: Central message can be deduced, but is not explicitly stated in the presentation.</p> <p>2 Fair: Central message is basically understandable but is not often repeated and is not memorable.</p> <p>3 Good: Central message is clear and consistent with limited supporting material.</p> <p>4 Very Good: Central message is compelling (precisely stated, appropriately repeated, memorable, and strongly supported) with appropriate supporting material.</p> <p>5 Excellent: Central message exhibits student's expertise in the subject matter using a variety of types of supporting materials to make appropriate reference to information or analysis that significantly supports the presentation or establishes the presenter's credibility/authority on the topic.</p>

Student Qualities**Student demonstrates effective written communication skills**

- 1 Poor: Uses appropriate and relevant content to develop simple ideas in some parts of the work.
- 2 Fair: Uses appropriate and relevant content to develop and explore ideas through most of the work.
- 3 Good: Uses appropriate, relevant, and compelling content to explore ideas within the context of the discipline and shape the whole work.
- 4 Very Good: Uses appropriate, relevant, and compelling content to illustrate mastery of the subject, conveying the writer's understanding, and shaping the whole work and is virtually error-free.
- 5 Excellent: Uses appropriate, relevant, and graceful language that skillfully communicates meaning to readers with clarity and fluency, and is error-free.

Student demonstrates ability to analyze prior literature on a research topic

- 1 Poor: Chooses a few information sources. Selects sources using limited criteria (such as relevance to the research question).
- 2 Fair: Chooses a variety of information sources. Selects sources using basic criteria (such as relevance to the research question and currency).
- 3 Good: Chooses a variety of information sources appropriate to the scope and discipline of the research question. Selects sources using several criteria (such as relevance to the research question, currency, and authority).
- 4 Very Good: Chooses a variety of information sources appropriate to the scope and discipline of the research question. Selects sources after using multiple criteria used (such as relevance to the research question, currency, authority, audience, and bias or point of view).
- 5 Excellent: Chooses a variety of information sources appropriate to the scope and discipline of the research question. Selects sources after considering the importance (to the researched topic) and uses multiple criteria used (such as relevance to the research question, currency, authority, audience, and bias or point of view). Communicates, organizes and synthesizes information from sources to fully achieve a specific purpose, with clarity and depth.

Student demonstrates ability to contribute to scholarly research

- 1 Poor: Very limited contribution to scholarly research; no peer-reviewed publications
- 2 Fair: Fair: Attempted developing scholarly work, but has not yet published anything
- 3 Good: Successful in at least one attempt to have own research peer-reviewed and accepted for publication.
- 4 Very Good: Very successful in disseminating own research via several peer-reviewed publications.
- 5 Excellent: Excellent dissemination of own research, as well as collaborative research within her/his group. Has multiple publications. Also, evaluates other conference papers.

Student will be able to use information ethically and legally.

- 1 Poor: Students correctly use the following information strategy (use of citations and references) and demonstrate a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.
- 2 Fair: Students correctly use the following information strategies (use of citations and references; choice of paraphrasing, summary, or quoting) and demonstrates a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.
- 3 Good: Students correctly use the following information strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context) and demonstrates a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.
- 4 Very Good: Students correctly use some of the following information strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrate a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information
- 5 Excellent: Students correctly use all of the following information strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrate a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.

Student demonstrates creative thinking

- 1 Poor: Reformulates a collection of available ideas.
- 2 Fair: Experiments with creating a novel or unique idea, question, format, or product.
- 3 Good: Creates a novel or unique idea, question, format, or product.
- 4 Very Good: Extends a novel or unique idea, question, format, or product to create new knowledge or knowledge that crosses boundaries.
- 5 Excellent: Extends a novel or unique idea, question, format, or product to create new knowledge or knowledge that crosses boundaries and develops a logical, consistent plan to solve problem, but recognizes consequences of solution and can articulate reason for choosing solution.

Student Qualities

Student makes connections across the discipline through integrative learning

1 Poor: Uses, in a basic way, skills, abilities, theories, or methodologies gained in one situation in a new situation.

2 Fair: When prompted, presents examples, facts, or theories from more than one field of study or perspective.

3 Good: When prompted, connects examples, facts, or theories from more than one field of study or perspective.

4 Very Good: Independently connects examples, facts, or theories from more than one field of study or perspective.

5 Excellent: Independently creates wholes out of multiple parts and draws conclusions by combining examples, facts, or theories from more than one field of study or perspective.