### Department of Physics, University of Central Florida
Please respond with your appraisal of the student’s ability to demonstrate proficiency.

Student Name:  __________________________________
Date: _____________________
Thesis/Dissertation Title:_________________________________________________________________________

<table>
<thead>
<tr>
<th>Skill assessment</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Committee Member’s Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foundation in Science:</strong> The student demonstrates evidence of understanding relevant concepts and theories</td>
<td>Fail/limited proficiency</td>
<td>Some proficiency</td>
<td>Proficiency</td>
<td>High proficiency</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>Fails to identify or explain the key theories or concepts. Represents the key theories and or concepts inaccurately.</td>
<td>Successfully identifies or explains some, but not all of the key theories or concepts. Does not explain the key theories and or concepts clearly and or sufficiently.</td>
<td>Successfully identifies and explains all key theories or concepts in a sufficient and clear manner.</td>
<td>Successfully identifies and explains all key theories or concepts in a sufficient and clear manner.</td>
<td>Successfully identifies and explains all key theories or concepts in a sufficient and clear manner.</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td><strong>Analytical skills:</strong> The student demonstrates the ability to interpret data obtained in her/his research and is able to formulate useful and new ideas and theories.</td>
<td>Fails to give explanations to findings in this research. New ideas are not formulated or not based on scientific evidence.</td>
<td>Gives a basic interpretation of the findings in this research. Some new ideas are formulated but are limited in their relevance.</td>
<td>Successfully interprets most of the findings of the research. Some new ideas are formulated, which provide a good understanding of the findings.</td>
<td>Successfully interprets the findings of the research. New ideas are formulated opening new avenues of research. These theories provide a comprehensive understanding of the findings and of related research by others.</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>The research conducted was strongly dependent on work by others. It is apparent that the student was not able to conduct most of this research without significant help by others. The student only minor experimental or computational skills.</td>
<td>The research conducted was in most parts dependent on work by others. The student relied on help by others in many parts of this research. The student showed limited experimental or computational skills.</td>
<td>The research was in most parts conducted independently of work by others. The student relied on little help by others in most parts of this research. The student showed good experimental or computational skills.</td>
<td>The most important parts of this research were conducted independently. The student showed excellent experimental or computational skills.</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td><strong>Experimental and computational research skills:</strong> The manuscript and the presentation shows that the student is able to conduct advanced research.</td>
<td>Fails to explain most research methods, background, and results. Has obvious difficulties communicating ideas and answering questions.</td>
<td>Explains some research methods, background, and results. Sometimes shows difficulties communicating ideas and answering questions.</td>
<td>Successfully explains most research methods and results as well as some background and importance of the research. Communicates ideas well and gives reasonable answers to questions.</td>
<td>Successfully explains research methods and results as well as background, broader impact and intellectual merit. Easily communicates ideas and gives excellent answers to questions.</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td><strong>Oral presentation:</strong> The student is able to communicate clearly in the presentation and shows mastery of the topic.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>The manuscript contains an abundance of errors in mechanics, usage, grammar and spelling so that meaning is obscured. There is no or little organization in the document. Citations of relevant research or references to authorities in the field are either missing or not relevant.</td>
<td>The manuscript contains noticeable errors in mechanics, usage, grammar and spelling so that the reader is distracted from the content. There is limited organization in the document. Some important references to authorities are missing.</td>
<td>The manuscript is free of most errors in mechanics, usage, grammar and spelling so that the reader is minimally distracted from the content. Clear organization is apparent. References to authorities are accurate for key issues, but information is not always complete or consistently provided.</td>
<td>The manuscript is free of errors in mechanics, usage, grammar and spelling. The document is very well organized and flows logically and smoothly. Consistently cites references that support all key issues, resulting in a knowledgeable, scholarly, and thoughtful manuscript.</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td><strong>Writing skills:</strong> The document is written in a manner which clearly demonstrates the student’s ability to communicate mastery of the topic.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 2 3 4</td>
</tr>
</tbody>
</table>

Note: Committee members will write their scores on this form. The committee Chair will collect this form and submit it to the Senior Admissions Specialist, PSB 432.
E.1: Responsibilities of Members of Dissertation Committees

1. To meet at regular intervals at least once per year to: (i) discuss and approve the proposed dissertation research and the plans for carrying out the research; and (ii) to assess progress towards the dissertation and give the student a yearly letter of evaluation in addition to S/U grades awarded for 7980 courses.
2. To review TurnItIn.com results from dissertation submittals.
3. To participate in the candidacy and/or dissertation prospectus examination.
4. To participate in the dissertation defense to assure: (i) that the dissertation is acceptable as original research and a contribution to the discipline; and (ii) that it meets the standards of the University.

E.2: Responsibilities of the Chair (and co-Chair) of Dissertation Committees

1. In cooperation with the program director, to review the program of study, the research, and all other degree requirements by meeting with the student early in the program and immediately after appointment as chair/co-chair.
2. To suggest to the student possible committee members who could serve on the dissertation committee.
3. To establish timelines for the research, set expectations, and evaluate the student progress based upon these.
4. To meet at regular intervals with the student to discuss the proposed dissertation research and the plans for carrying out research.
5. To review in a timely manner all written materials submitted by the student and offer suggested revisions.
6. To meet at least once per year with the student and the dissertation committee to assess progress toward the dissertation and give the student an annual review in addition to the S/U grades awarded for 7980 courses. The chair shall send the annual review to the program director after consultation with the dissertation committee.
7. To coordinate the ongoing efforts of the committee as its chair, and to participate fully in the responsibilities of the committee members as a member of the dissertation committee.
8. To chair the candidacy and/or dissertation prospectus examinations.
9. To be physically present and chair the dissertation defense, ensure its proper conduct as described above, and submit to the program director for the student’s records all necessary grades, forms and other materials.
10. In disciplines where funding is essential to the success of the thesis or dissertation work, to acquire funds (and appropriate facilities) sufficient to support the research of the student.

E.3: Responsibilities of the External Committee Member of a Dissertation Committee

1. External committee membership will entail the full responsibilities of other committee membership as specified in section E.1 above, including being present at the final defense.
2. External committee members should bring specific disciplinary knowledge or research expertise to the committee.
3. External committee members may be appointed from outside of the university or outside of the college (if the committee is for a college-wide program). The external committee member may not be affiliated in any way with the department of the committee, such as through joint or secondary joint appointments.
4. Graduate faculty scholars are external members.

E.4: Dissertation Committee Procedures

1. For on-campus defenses, no fewer than four faculty members, including all members of the dissertation committee, shall be in attendance with the student during the dissertation defense, and at least half of the committee must be physically present.
2. Graduate programs may elect to offer the option of a virtual dissertation defense (student off-campus defense) upon approval of the graduate program director, the department, and the college. If the student defends virtually, at minimum the dissertation committee chair will be present at the campus location of the public defense. No fewer than four faculty members, including all members of the dissertation committee, shall be in attendance during the dissertation defense.
3. Only members of the dissertation committee may sign the dissertation, and a majority must approve the dissertation.

F.1: Exceptions: Exceptions may be made at the discretion of the Vice Provost and Dean of the College of Graduate Studies.