CS 452 Evaluation Rubric (revised fall 2017)

This rubric serves as a starting point for discussion among the CS faculty about CS 452 grades. Not all questions apply equally well to every project, and some are only appropriate for the first reader. Roughly speaking, a score of 4 in an area corresponds to Honors-level achievement, 3 to Good, and 2 to Satisfactory, with 1 and 0 indicating substandard performance. However, the way in which these elements are weighted is topic-dependent, and a particular set of scores does not guarantee a certain 452 grade. For double majors, the evaluation of the project from the perspective of the other discipline is also significant in determining the grade.

1. Depth of Material Covered – Based on the material covered in your weekly meetings with the student, and the final written document, which statement best describes the depth of the student's investigation?

- (4 Exceptional) The student did a thorough investigation into this topic, providing examples and going well beyond the minimum depth required of a 2-semester project.
- (3 Strong) The student did a comprehensive summary of this topic, providing examples and personalizing the material.
- (2 Adequate) The student did a good summary of the material, and went into a depth appropriate for a 2-semester investigation.
- (1 Marginal) The student covered some topics well, but failed to go into enough depth with others.
- (0 Unsatisfactory) The student a brief summary of the material, but did not achieve the depth required of a 2-semester investigation.

2. Student Understanding and Mastery of the Subject - Based on the weekly meetings with your I.S. student and the final written project, which statement best describes this student's understanding of the content in the I.S.?

- (4 Exceptional) The student has a thorough understanding of this material and should be able to answer probing questions on any of the content.
- (3 Strong) The student has a good understanding of this material but may have difficulty answering probing questions.
- (2 Adequate) The student has a good understanding of some portion of this material, but approximately _____% of the work was completed without the benefit of discussion with the advisor.
- (1 Marginal) The student has some difficulty understanding a significant portion of the material and will have difficulty answering questions.
- (0 Unsatisfactory) The student lacks a basic understanding of the fundamental ideas contained in the written document, and will not be able to answer questions.

3. Independence of Learning (for first readers only) – Based on the weekly meetings with your I.S. student, which statement best describes the student's initiative and independence throughout the process?

- (4 Exceptional) The student demonstrated strong initiative and independence, requiring only a minimal amount of guidance.
- (3 Strong) The student demonstrated good initiative and worked mostly independently, requiring an appropriate amount of guidance.
- (2 Adequate) The student was self-directed for some of the thesis, but required lots of guidance on other parts.
- (1 Marginal) The student was unable to work without strict deadlines and lots of guidance regarding the direction of the thesis.
- (0 Unsatisfactory) Despite deadlines and guidance from the advisor, the student failed to complete work in a timely manner.

4. Assimilation of Material – Based on your discussions with this I.S. student, the bibliography, and the final written document, which statement best describes the student's assimilation of the material?

- (4 Exceptional) The student assimilated material from a wide variety of sources.
- (3 Strong) The student used material from multiple sources and did some assimilation of that material.
- (2 Adequate) The student used material from multiple sources.
- (1 Marginal) The student primarily used one source, but did use some material from at least one other source.
- (0 Unsatisfactory) The student used one primary source from which all material is taken.

5. Form/Writing Quality – Which statement best describes the quality of the student's writing in the thesis including organization, readability, form (grammar, spelling, typesetting), and style?

- (4 Exceptional) The I.S. is written in a clear and well-organized manner, with excellent grammar, spelling, and typesetting. Moreover, it is written in the student's unique style and directed toward an audience of peers.
- (3 Strong) The I.S. is well-organized and very readable, with very few errors in spelling, grammar, or typesetting.
- (2 Adequate) The I.S. is well-organized and readable, despite some errors in spelling, grammar, or typesetting.
- (1 Marginal) The I.S. is somewhat difficult to read because of weak organization, lack of clarity, and a number of errors in spelling, grammar, or typesetting.
- (0 Unsatisfactory) The I.S. is quite difficult to read because of disorganization and of poor grammar.

6. Project – Which statement best describes the quality of the project including project goals, design, and relevance to the thesis?

- (4 Exceptional) Project goals are clearly stated and are complete. The project is an excellent illustration of the thesis topic. Project design is excellent; it is detailed and covers all project goals.
- (3 Strong) Project goals are nicely stated and are mostly complete. The project provides a good illustration of the thesis topic. Project design is good; some details may be missing or some goals not clearly covered.
- (2 Adequate) Project goals are presented and are understandable. The project adequately illustrates the thesis in broad terms with varying degrees of depth. Project design is present, but lacks detail or doesn't include all project goals.
- (1 Marginal) Project goals are incomplete or unclear. Some aspects of the thesis are not covered or are covered only superficially by the project. The design exists in broad form only and doesn't clearly cover some of project goals.
- (0 Unsatisfactory) Project goals are unclear, vague, or missing altogether. The link to the thesis is unclear or the project is not relevant to the thesis topic. Design is missing or very superficial.

7. Project Implementation – Which statement best describes the quality of the project implementation including completeness, quality, correctness, planning, use of resources, etc.?

- (4 Exceptional) The project is completed as designed and is of high quality. Correctness can be demonstrated. Resources (equipment, software tools, library, etc.) are used creatively.
- (3 Strong) Most of the project is completed as designed and is of generally high quality. Some components may be missing, incomplete or incorrect. Good use of resources.
- (2 Adequate) Most of the project is completed as designed and is of generally good quality. Some components are missing, incomplete or incorrect. Resource usage is adequate.
- (1 Marginal) Many components are incomplete or incorrect. Overall quality of the project components is poor. Poor use of resources; lack of awareness of available resources.
- (0 Unsatisfactory) Project largely incomplete or incorrect. Very poor use of available resources or resources used inappropriately.

8. Project Results – Which statement best describes the quality of the project results including relevance to thesis and completeness (Note: results need not be positive)?

- (4 Exceptional) All components of the project produced results that are clearly relevant to the thesis. All of the thesis' goals are covered by the results.
- (3 Strong) All or most components produced results relevant to the thesis. Most of the thesis' goals are covered by the results.
- (2 Adequate) Most project components produced results relevant to the thesis topic. Most of the thesis' goals are covered by the results.
- (1 Marginal) Results are largely incomplete or are only loosely relevant to the thesis. Many aspects of the thesis are not present in the results.
- (0 Unsatisfactory) No results or results irrelevant to the thesis. Much of the thesis is not demonstrated in the results.

9. Presentation – Which statement best describes the quality of the student's final oral presentation, considering organization, knowledge of content, audience awareness, and professionalism? (For double majors whose oral exam begins from a poster, rather than an oral presentation, consider the poster instead.)

- (4 Exceptional) The presentation was excellent overall, and strong in each of these aspects.
- (3 Strong) The presentation was solid, with only minimal problems in any of these aspects.
- (2 Adequate) The presentation was acceptable, despite some weakness in one or more aspects.
- (1 Marginal) The presentation was substantially hampered by a pronounced weakness in at least one aspect.
- (0 Unsatisfactory) The presentation was unacceptable, with pronounced weaknesses in multiple aspects.

Additional comments: