Master of Science in Computer Science and Information Systems  
(MS-CSIS)

Exit Examination Process and Report Format

Revision date: May 28, 2015

Revised by: Dr. Michael Farmer

1. Overview of the MS-CSIS Exit Exam

This document defines the format of the Exit Exam Report for Master of Science in Computer Science and Information Systems at University of Michigan – Flint. The overall objective of the report is to assess the student’s understanding of the core concepts presented throughout the courses required for the degree, and demonstrate his ability to synthesize concepts from multiple courses.

Most of the required courses in the MS-CSIS program provide a reading list of journals and other scholarly articles related to that subject area. For the MS-CSIS Exit Exam Report, the student shall select as a minimum one paper each from two different courses, or substitute other suitable articles with the approval of the student’s advisor. The student shall then integrate the information from these papers with at least two additional technical papers found by the student into a coherent exposition which describes a technical problem related to these two topics. Further additional reference material consisting of other scholarly papers is strongly encouraged. These additional reference materials may be from any appropriately technical source (Note Wikipedia is not considered an appropriate technical source).

The student’s program advisor shall serve as the exam advisor. The Exit Exam Report shall be reviewed by the advisor and one other faculty member. The additional faculty member shall be jointly selected by the student and her advisor based on the proposed content of the Exit Exam paper, and the consent of the faculty member. The additional faculty member may be either an adjunct professor or a tenure track faculty member. The topic and reference papers for the Exit Exam must be approved by both the advisor and the second reader for the paper. The Exit Exam Approval Form is provided in the Appendix. The signed Approval Form should be submitted to the program secretary for inclusion in the student’s folder.

The Exit Exam Report shall be graded Pass/Fail. The specific rubrics for grading of the Exit Exam Report are provided in Section 3. Satisfactory completion of the exam is required for graduation and issuance of the M.S. degree. Students who fail to submit a satisfactory Exit Exam Report must modify and re-submit the report during the following semester. An additional edit and review may be allowed within the graduating semester at the discretion of both readers. Specific timing for submission of the Exit Exam Report is provided in Section 2.
The exit exam serves as a direct measure for the department in assessing the learning of the students throughout their tenure in the program. A subset of the program’s objectives and desired outcomes that is used for program assessment and measured through the exit exam is provided in the following table. Specifically, the integration of subtopics from two courses into the topic of the exit exam allows the students the opportunity to demonstrate comprehensive knowledge and also to integrate knowledge from multiple computer science sub-topics.

<table>
<thead>
<tr>
<th>Program Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possess knowledge and comprehension of the state-of-the-art of advanced computer science or information systems.</td>
</tr>
<tr>
<td>Ability to relate and integrate knowledge from multiple computer science or information systems sub-topics.</td>
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<tr>
<th>Student Learning Outcomes</th>
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<tbody>
<tr>
<td>Students shall have the knowledge to successfully apply to PhD program for further study.</td>
</tr>
<tr>
<td>Students shall demonstrate ability to integrate multiple computing or IS concepts.</td>
</tr>
<tr>
<td>Students shall be able to evaluate and discriminate solutions from multiple computing or IS concepts.</td>
</tr>
<tr>
<td>Student shall demonstrate understanding of the core concepts presented throughout the courses required for the degree, and demonstrate their ability to synthesize concepts from multiple courses.</td>
</tr>
</tbody>
</table>

### 2. Timing of the Exit Exam Report

The Exit Exam Report shall be completed during the student’s final semester of their expected graduation. The student must meet the following deadlines for the Exit Exam for each semester. Failure to meet any deadline will result in the student being required to complete the Exit Exam the following semester. Submission dates for the Exit Exam Report shall be as follows:

- **Fall Semester:**
  1. Exit Exam Proposal Form Submitted: **September 30**
  2. First (rough) Draft Due: **November 1**
  3. Final Submission Due: **December 1**

- **Winter Semester:**
  1. Exit Exam Proposal Form Submitted: **Jan 31**
  2. First (rough) Draft Due: **March 1**
iii. Final Submission Due: **April 1**

- **Spring/Summer Semesters:**
  i. Exit Exam Proposal Form Submitted: **May 31**
  ii. First (rough) Draft Due: **July 1**
  iii. Final Submission Due: **August 1**

### 3. Assessment Rubrics for the Exit Exam Report

The Exit Exam Report shall be assessed for its quality based on the following rubrics:
- Scope and novelty of the topic
- Depth of understanding of the technical concepts
- Organization of the document
- Clarity of writing

The grading form which the faculty will use is attached to the end of this document.

### 4. Format for the Exit Exam Paper

The Exit Exam Report shall be presented in the form of a **20 page** (double spaced 12 point Times New Roman font) document to be reviewed by the student’s academic advisor and one other appropriate faculty member. The outline for the document shall be as follows:

1. INTRODUCTION
2. BACKGROUND REVIEW
3. TECHNICAL DISCUSSION
4. CONCLUSIONS AND AREAS OF POSSIBLE FUTURE WORK
5. REFERENCES

### 5. Plagiarism and Academic Integrity

As the exit exam is the student’s opportunity to demonstrate to the MS-CSIS faculty their accumulated knowledge derived from the coursework in the program, academic integrity is of the utmost importance. All content of the exam must be original, original to the exam, or appropriately reference its source. **Original content** means that content is produced by the student. **Original to the exam** means that the content previously submitted as coursework or for which the student has submitted or published elsewhere cannot be incorporated into the exam. **Appropriate source reference** requires that all content copied word for word from any source be surrounded by quotations and be properly cited. Other content requiring appropriate citation includes images, charts, graphics, or any other content not produced by the student. Citations and the associated references shall follow IEEE or ACM formats (refer to any IEEE or ACM paper for examples). Students must ensure that their exit exam consists of their own work and every exit exam will be processed in SafeAssign or a comparable online plagiarism detection tool. If any paper is found to contain significantly more than 20% directly copied text from outside sources, the advisor may fail the student on the exam.
Depending on the severity of the plagiarism, the student may then be referred to the MS-CSIS graduate program director who in consultation with the faculty advisor will jointly determine if the student will be given another opportunity or if the student will be dismissed from the program.
Exit Exam Topic Approval Form

Student’s Name:_________________________                  Date:_______________

Semester Graduating:   F__  W__   Sp/Su___

Title of Exit Exam:_____________________________________________________
____________________________________________________________________
____________________________________________________________________

Courses Used For Exam:_______________________________________________

Brief Abstract of Exit Exam:____________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

Preliminary Reference Papers Used:_______________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

Advisor Approval Signature:____________________________  Date:______________
Master of Science in Computer Science and Information Systems
Exit Examination Evaluation Form

Revision date: April 9, 2012

Student Name:__________________________________ UMID:_____________

Exit Exam Title:_____________________________________________________
_________________________________________________________________
_________________________________________________________________

Semester Submitted:_________________

Reviewed by:____________________ Date Reviewed:_____________


6. Scope and Novelty of the Topic
   - Clarity and Completeness of Scope:____________
   - Novelty of Topic:____________

7. Depth of Understanding of the Technical Concepts
   - Demonstration of Understanding of Concepts:_____________
   - Results Were Clearly Defined and Justified:_____________
   - Quality and Use of References:_____________

8. Organization of the Document
   - Document Followed Required Format:_____________
   - Flow of Material was Clear and Logical:_____________

9. Clarity of Writing
   - Document was Grammatically Correct:_____________
   - Writing was Clear and Purposeful:_____________


Comments:_________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________