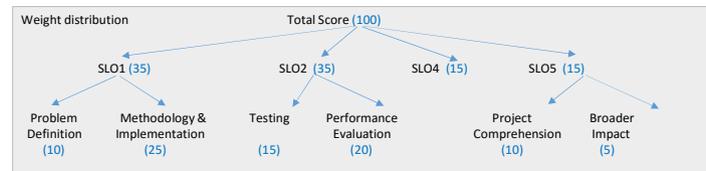


Rubric for Research Final Report (thesis & project options for MSCS Program) - for assessment of SLOs 1, 2, 4, 5

SLO for MSCS program:

1. Students will have the competence to examine a problem and design a methodology to achieve a solution.
2. Students will have the competence to assess the performance of a computational artifact, entity, or process.
3. Students will have the competence to work toward a common objective in a team and contribute effectively.
4. Students will have the competence to communicate their thoughts and ideas to varied audiences, both orally and through written work.
5. Students will have the knowledge and skill for independent learning and professional development.

Total:



SLO5 Assessment Total:

1

Faculty: please enter a score in range of 0-10 in each cell of this column

SLO	Assessment	Score 8 - 10	Score 6 - 7	Score 3 - 5	Score 1 - 2	Student Raw Score Earned
1	Problem definition	Student demonstrated the ability to construct a clear and insightful problem statement along with its contextual factors.	Student was able to adequately construct the problem statement with its contextual factors.	Student was able to construct a general statement about the problem but was limited in clarity and contextual factors.	Student demonstrated limited ability in identifying and constructing the problem statement.	10
1	Methodology & Implementation	Student implemented all elements of the proposed methodology and was able to adjust the methodology and its implementation in light of new findings/experience skillfully and independently.	Student implemented all elements of the proposed methodology and was able to adjust the methodology and its implementation in light of new findings/experience that showed comprehension of the research topic, with some guidance from the supervisory committee members.	Student implemented all elements of the proposed methodology and was able to adjust the methodology and its implementation in light of new findings/experience, with continuous assistance from the supervisory committee members.	Student was not able to or had difficulty to implement the proposed methodology or its adjusted form, which required direct intervention and constant assistance from the supervisory committee members.	10
2	Testing	Student acquired the necessary procedures to test the correctness of the implemented artifact skillfully and independently.	Student acquired the necessary procedures to test the correctness of the implemented artifact with some guidance from the supervisory committee members.	Student was able to test the correctness of the implemented artifact with continuous assistance from the supervisory committee members.	Student was not able to or had difficulty implementing the procedures to test the correctness of the implemented artifact, which required constant intervention by the supervisory committee.	10
2	Performance Evaluation	Student evaluated the artifact performance by synthesizing different approaches, comparing, and contrasting with the existing (if any) artifacts skillfully and independently.	Student evaluated the artifact performance adequately with some guidance from the supervisory committee.	Student evaluated the artifact performance briefly, which required continuous guidance from the supervisory committee.	Student was not able to or had difficulty to evaluate the artifact performance, which required constant intervention by the supervisory committee.	10
4		Student used clear and skillful language (e.g., proper paragraphs, transitions among sections/paragraphs), and used elegant variety of supporting materials (e.g., illustrations, examples, analogies) to convey the writer's thoughts on the research topic and its implications that is compelling to the technical and non-technical readers.	Student used adequate language and some supporting materials to convey the writer's thoughts that make the comprehension of the research topic and its implications easier for technical and non-technical readers.	Student used language and supportive materials to convey the writer's thoughts but with limited clarity, which made the research topic somewhat difficult to understand, causing limited revisions/edits and recommendations by the supervisory committee.	Student was not able to use adequate language and/or sufficient supportive materials to convey the writer's thoughts, which required constant revisions and recommendations by the supervisory committee.	10
5	Project comprehension	Student showed independence swiftly throughout the project (topic investigation, proposal development, research approach/implementation, and final report). Through this process, the student learned to be an independent thinker, and learned the skills to investigate technical literature with confidence for future research and professional development.	Student showed independence gradually and steadily but needed some guidance throughout the project. The student learned the skills to be a critical thinker and investigate technical literature for future research problems and professional development but with limited confidence.	Student showed some difficulty to work independently that required guidance often throughout the project. The student showed some difficulty in critical thinking and literature investigation as the means for future research and professional development.	Student was not able to work independently throughout the projects. The student needed continuous guidance and had difficulty to finish the project, and/or to be a critical investigator that are necessary for future professional development.	10
5	Broader impact	Student showed mastery of the research project by demonstrating the product outcomes, limitations, broader implications of the project, and its contextual factors for future research work comprehensively and insightfully.	Student was able to demonstrate the project outcomes, limitations, and the possibilities for future research endeavors.	Student had limited understanding of the project outcomes, its limitations, and the possibilities for future research work.	Student had superficial understanding of the project outcomes, which made it difficult to provide any meaningful implication of the project or opportunities for future research work.	10
	Student Weighted Score					100