Assessment of Graduate Program – EMIS Department

Ph.D., Systems Engineering Degree – Student Learning Outcomes (SLO) – Defense

Date: _____ Student Name: _____

The Four SLOs on this rubric are evaluated by the chair of the Ph.D. committee at the time of the dissertation defense. The written dissertation and oral defense are used as evidence. Please score each SLO on a 1 to 4 scale roughly corresponding to grades of D/F through A.

SLO	Unsatisfactory 1	Developing 2	Satisfactory 3	Exemplary 4
1. Student demonstrates expert knowledge of the literature in a sub area of Systems Engineering.	Student cannot adequately document previous work and his/her knowledge of subject area is weak.	Student demonstrates knowledge in most areas of his/her work but is weak in some others.	Student appropriately documents and explains previous work and the bibliography is not "review" quality.	Student thoroughly documents and explains previous work relevant to the subject area and the bibliography has "review" quality.
2. Student demonstrates the ability to clearly explain and document his/her research in the discipline of Systems Engineering.	Student fails to present clear, logical and complete arguments.	Student clearly explains his/her work in most areas but his/her explanations are weak in some others.	Student clearly, logically and completely explains his/her work at an appropriate level.	Student clearly, logically and completely explains his/her work both in his/her technical arguments and in accompanying narratives at an accomplished and professional level.
3. Student demonstrates the ability to identify research directions independently in the discipline of Systems Engineering.	Student does not reflect on his/her own work or make proposals for future work.	Student identifies new areas of research when prodded, but does not do so independently.	Student demonstrates the ability to identify new research directions at an appropriate level.	Student demonstrates thorough self-critique of his/her own work, consistently identifies open questions, makes proposals for future work, and appears ready for independent research.
4. Student obtains results publishable in peer-reviewed journals or conferences in the discipline of Systems Engineering.	Student does not produce work of publishable quality.	Student must obtain additional results before research is publishable.	Student obtains publishable results that must be prepared for submission.	Student produces one or more peer-reviewed publications.*

*Publication may be through a journal or conference.

Turn this completed form into the departmental assessment coordinator.