Master of Science in Cyber Systems and Operations Capstone Project Policy

The Cyber Academic Group (CAG) recognizes theses as the ideal culminating intellectual product for students earning a Master of Science Degree in Cyber Systems and Operations (CSO). However, the CAG also recognizes a capstone project as a suitable alternative. Capstone projects allow students to learn and gain experience in a team-oriented process, while working on a problem relevant to Navy, DoD, and U.S. Government sponsors. A capstone project must meet the same requirements for analytical rigor and mastery of the relevant background material as a thesis, but can take different forms from the typical thesis that proposes hypotheses and tests them based on quantitative or qualitative data.

The capstone project will typically be one of two types: (1) analysis of a specific problem, policy, strategy, or system; or (2) hardware or software development, implementation, or integration. A capstone project must focus on a problem of specific and immediate sponsor interest. Ongoing sponsor participation, therefore, is paramount in the capstone process. Sponsor participation includes taking on a capstone advisor role (e.g., second reader), informal mentoring, providing proposal and final product feedback, and funding for travel and equipment, among others.

A capstone project team will consist of no

10. Institutional Review Board (IRB) review checklist.

The capstone process includes a number of milestones and products. The following is a listing of required milestones:

- 1. Capstone proposal. The capstone proposal will be completed in accordance with the preceding guidance. The capstone proposal is to be complete by the end of quarter three (three quarters prior to graduation).
- 2. Mid-course review. The capstone team, advisors, and sponsors will formally review the progress of the capstone project at the approximate project mid-point. This review will include an assessment of completed and remaining work and an assessment of the relative contribution of each team member will be evaluated by the advisors and sponsors. The mid-course review can be completed as early as the end of quarter four (two quarters prior to graduation) and will be completed no later than the end of quarter five (one quarter prior to graduation).
- 3. Final presentation. The capstone team will conduct a presentation of their work for advisors, CAG, sponsors, and other interested parties. This presentation will be given in a "brownbag" or classroom setting after completion of the capstone project work (the final report does not have to be complete).
- 4. Final report. The capstone project will be formally documented by a capstone report in accordance with NPS requirements. The capstone report will include a full discussion of the work to include problem statement, background research, method of solution, data or experimental results, findings, and recommendations. In addition, the capstone report will include a thorough discussion of the project's benefits to the Navy, DoD, or other sponsoring agencies. The capstone report must be completed, signed, and accepted by the NPS Thesis Processing Office prior to graduation.

Sponsors and capstone advisors may determine that additional milestones and deliverables are required for completion of the project.

Capstone advisor requirements are as follows:

- 1. A CSO capstone project will be advised by a committee configured as follows:
 - a. Advisor and co-