New Graduate Course Proposal

Management of a Digital Forensics Lab

Course Title: Management of a Digital Forensics Lab

Course description as it is to appear in the catalog:

FCM 7xx. Management of a Digital Forensics Lab. Training and practice in the management and operation of a digital forensics lab. Prerequisite: Permission of the Co-Directors. 150 hours per semester with conferences, to be arranged.

Rationale:
The goals of this course are two-fold. First, is to provide a few students with an opportunity to gain experience as a lab manager with all the learning and complications that may entail. In turn, a crew of student lab managers running the Forensic Computing (FCM) lab will create a dynamic and cooperative learning environment that enhances use of the lab for all FCM students for coursework and research within a supervised and secure environment.

This course would count as a three credit elective in a student's program of study. It is not anticipated that this course will be used to serve as a student's fieldwork experience.

Course outline:

Students would be selected from those expressing interest. Ideally, three or four would comprise the lab management crew each semester. While the course will have a designated title to be reflected on a student's transcript, it will be run as an independent study. The course will entail student work in the lab with a flex-time schedule to be arranged and occasional group and individual conferences with the instructor as needed. Student work will entail such individual and group activities as the following:

General expectations of all students enrolled:

- to provide 200 hours during the semester in lab-based activities
- to attend conferences with the instructor and meetings with other lab crew members as required
- to install and maintain lab machinery, networks and software used in practice and in support of teaching and student research in the program
- to establish policies to run the lab according to accepted "best practices" to include keeping logs that document lab access, use and maintenance
- to study various materials and documents related to lab management as provided by the supervising faculty member
- to provide scheduled and attended operation of the lab to afford other FCM students supervised access to lab facilities (each student lab manager would spend from 10-15 hours per week working in the lab)
- to prepare a "white paper" that assesses or reports actual tests of forensic software or hardware or other relevant research topic
Individual/group activities based on personal interests:

- to act as a consultant and provide instruction to others in the use of the forensic tools available in the lab
- to develop and maintain a library and warehouse of open source software, references, and other items of interest to the digital forensic community
- to organize a visit to a working digital forensic lab during the semester
- to discover, obtain, install, and evaluate both new open source and commercial digital forensic software and equipment

Proposed texts and supplementary reading:

Barker, Kathy, (2002). At the Helm: A Laboratory Navigator, Cold Spring Harbor Laboratory Press


SWGDE (July 2004) Recommended Guidelines for Validation Testing V1.0

SWGDE (October 2004) Guidelines for a Quality Management System V1.0

SWGDE/SWGIT (November 2004) Recommended Guidelines for Developing Standard Operating Procedures, V1.0


Library resources for this course:

As this course will primarily offer hands practical lab work as opposed to library research, library resources appear to be adequate.

Proposed instructors and qualifications:

Professor Richard Lovely, PhD, Co-Director of the MS Program in Forensic Computing