COMPUTER SCIENCE INSTRUCTION 1531

From: Chair, Computer Science Department

Subj: DEPARTMENT REGULATIONS CONCERNING MIDSHIPMAN RESEARCH PROJECT COURSES

Ref: (a) ACDEANINST 1531.79
           (b) ACDEANINST 3920.3
           (c) USNA CS Dept Tech Report USNA-CS-TR-2005-01

Encl: (1) Independent Research Timeline

1. Purpose. To establish Computer Science department supplemental guidelines to the USNA general guidelines detailed in reference (a).

2. Cancellation. COMPSCIINST 1531 of 17 July 2001 is cancelled.

3. Background. Reference (a) defines new policies regarding all midshipman research project courses. This instruction provides guidelines for the administration of all research project courses but leaves certain matters to the discretion of individual departments. This instruction supplements the USNA instruction with additional Computer Science department requirements.

4. Requirements. In addition to the general guidelines of reference (a) the following departmental policies for the conduct of independent research project courses are in effect.

        a) Eligibility requirements. Applicants must have a 3.0 within the CS or IT majors, a Computer Science faculty sponsor and must have completed 22 hours of the Computer Science or Information Technology major.

        b) Major Elective Credit. Faculty sponsor shall ensure that the research project course contains exposure to advanced material commensurate with material typically found in a major elective course with the same number of hours in the topic proposal area. The departmental Research Committee will review the proposal and evaluate whether it satisfies all of the requirements of this instruction as well as Reference (a). They will also evaluate whether the proposed research satisfies requirements expected in a major elective course as described above.

        c) Maximum Research Course Credits.   A maximum of two three-credit hour research project courses may count as major electives within an applicant's matrix. A

third three-credit hour research project course may count toward an applicant's free elective.

        d) <u>Deadlines for Applications and Reports</u>. The Research Committee chair must receive applications no later than two weeks prior to the start of the registration period for the semester in which the research project course is to be taken. Application evaluations (see para 3f) will be provided to the department chair no later than one week prior to the start of the registration period. The final written report will be delivered to the department chair one week prior to the presentation of the oral summary.

        e) <u>Report and Presentation Format</u>. The format for the written report and the oral presentation will conform to a format defined by current practice in the appropriate subfield of Computer Science or Information Technology. If there are changes to the midshipman's original project title, sponsors, or abstract, these must be evaluated by the department research committee for approval. The chair will forward the changes to the Research Office well in advance of the oral presentation so that current information about the project may be displayed on the Research web pages.

        f) <u>Project Proposal Evaluation Process</u>. The Computer Science Department's research committee will evaluate all research project course proposals and provide approval/disapproval recommendations to the department chair. The department chair is responsible for approving midshipmen research courses.

        g) <u>Project Evaluation</u>. The midshipman researcher shall ensure that the oral presentation time is announced to the faculty and that a copy of the written report is made available to interested faculty one week prior to the oral presentation time. The faculty sponsor shall provide a feedback form via which faculty members may provide input to the sponsor regarding the midshipman's research project performance, regarding both the written report as well as the oral presentation.

        h) <u>Submission</u>. The midshipman researcher shall submit copies of the final report, as described in reference (a) for forwarding to the Naval Academy Research Office. A pdf version of the document will be submitted to the Computer Science Department Technical Report Series as described in reference (c).

        i) <u>Ethical and Safety Considerations</u>. The faculty sponsor shall ensure applicable ethical and OSH safety standards are adhered to during the course of the research project.

5. <u>Action</u>. The faculty sponsor is responsible for ensuring the research student is familiar with and abides by the requirements in (4) above and in references (a) and (b) and for the execution of the research. The department chair has the overall responsibility for all independent research projects and shall approve all projects, project changes and shall endorse all final reports.

6. <u>Revision</u>. This instruction should be reviewed by the department chair on an annual basis. Changes should be forwarded to the Academic Dean and Provost for approval, via

the Director, Division of Math and Science and Deputy Director of Research and Scholarship.

Enclosure (1)

Independent Research Timeline
Computer Science Department

Before preregistering for a research projects course:

1.   Before pre-registration:

a)   Completed a minimum of 22 hours of the Computer Science or Information
        Technology major (can include validated CS or IT courses).
b)   Have upper class standing or special permission.
c)   Have a Computer Science or Information Technology QPR of 3.0 or higher.
d)   Have a faculty sponsor and a topic area.
e)   Developed a proposal using the format prescribed in reference (a) with his/her
        faculty sponsor.
f)   Submitted the proposal to the Research Committee for evaluation. This must be
        completed early enough to ensure the Research Rommittee can forward the
        proposal to the chair as prescribed in item 2.

2.   Two weeks prior to registration: Proposals are due to the Research Committee.

3.   Registration period: If approved by the chair, register for research project course
        during the announced registration period within the semester preceding that in
        which the research project course is to take place.

4.   Prior to the first day of final examinations in the semester:

a)   Prepare final report using the format prescribed in COMPSCIINST 1531 of
        02 May 2005.
b)   Provide copies to the Naval Academy Research Office as described in Academic
        Dean Instruction 1531.79 prior to the first day of final examinations in the
        semester.
c)   Provide a copy to the CS Department Tech Report System, as described in
        USNA-CS-TR-2005-01.

5.   End of semester:

a)   Present an oral summary of his or her research at a gathering open to all faculty,
        staff, and midshipmen, as well as to invited guests from outside of the Naval
        Academy.
b)   Presentation should be done in a professional manner and include multimedia.
c)   Faculty research sponsor, using their assessment and considering the assessments
        of other faculty members in the department, assigns a semester grade.

6.   <u>Anytime:</u>

a)   Changes to the midshipman's original project title, sponsors, or abstract, should be forwarded to the research committee by the student for evaluation and subsequent approval. These will then be forwarded to the USNA Research Office.

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