NA&OE INSTRUCTION 1531.36C

From: Chairman, Department of Naval Architecture and Ocean Engineering

Subj: POLICY CONCERNING RESEARCH PROJECT COURSES

Ref. (a) ACDEANINST 1531.79, dtd 28 February 2001

1. **Purpose.** This instruction establishes policy and procedures for research project courses taken within this Department.

2. **Cancellation.** NAOMEINST 1531.36B is hereby cancelled. This new instruction is a complete revision and should be read in its entirety.

3. **Background.**
   a. Research Project Courses are offered to provide academically qualified midshipman with an opportunity to pursue independent research studies and projects under the supervision of a faculty member.
   b. The individual nature of a research project course necessitates that the overall project be well formulated, a complete plan of work developed and, upon completion, that the student's accomplishments be well documented. Reference (a) establishes Naval Academy policy pertaining to the administration of research project courses.
   c. This instruction incorporates the requirements of reference (a) while also establishing Department specific enrollment criteria, application procedures, approval requirements, and reporting responsibilities.

4. **Policy.**
   a. NA&OE General Guidance.
      (1) Enrollment in Department research project courses is open to those midshipmen majoring in either naval architecture or ocean engineering who have clearly demonstrated the potential to successfully conduct independent research.
      (2) Only one EN495 or one EN496 course may be used as a major elective. A second EN495 or EN496 course may be used as a free elective. Only one research project course may be taken in any given semester. A maximum of six research project credit hours may be applied toward the student’s degree requirements.
      (3) Midshipmen are encouraged to consider taking a one credit hour research preparation course (i.e., EN481 or EN482) in the semester immediately preceding the research project course. However, a one credit hour course may not be taken simply to satisfy the requirement that a midshipman be registered for a minimum of fifteen credit hours.
      (4) Two credit hour research project courses will not be offered.
Faculty wishing to supervise midshipmen research projects are limited to advising no more than two research students per semester or the equivalent responsibility.

b. NA&OE Enrollment Criteria.

(1) Only first and second class midshipmen are eligible for research project courses.

(2) It is recommended that a midshipman have a CQPR of at least 3.0 in order to enroll in a research project course. A minimum CQPR of at least 2.8 is required at the start of the research semester.

(3) Midshipman may not enroll in a research project course after the date that the Academy stipulates is the last day to add a course.

(4) Enrollment in a research project course outside a midshipman's major requires written approval from the Chair of each department involved.

c. Application Procedure.

(1) Each prospective research student must obtain the sponsorship of a faculty member willing to supervise his or her research effort. With the assistance of this Research Project Advisor (RPA), each candidate will develop and submit a concise proposal reflecting the title of the project, its objectives, identifiable milestones, and cost requirements, if any, for material, equipment, and travel. This proposal needs to be typed and well written. A research project proposal form can be found on the NA&OE Department Web Site at (http://www.usna.edu/NAOE/courses/en49x.htm). In addition, at the start of the research semester a title, abstract, and other pertinent information suitable for inclusion on the Academy’s Research Office web site must be submitted to the RPC.

(2) The written proposal must be approved by the RPA, the midshipman's Academic Advisor (ACA), the NA&OE Department Research Project Coordinator (RPC), and the Department Chair PRIOR to the midshipman registering for the research course. Ideally, this proposal should be under development at the time of pre-registration.

(3) Depending upon requirements for laboratory support, candidates may be required by the RPC to present an informal presentation to representatives of the Technical Support Department (TSD), the Hydromechanics Laboratory, or other appropriate cost centers before obtaining full approval for their research project. Scheduling of such presentations shall be the responsibility of the research student and his or her RPA.

d. Reporting Requirements.

(1) All research project students are required to submit an official title and one page abstract of their research before the conclusion of the research semester. Submission of this well written and typed information will first be to the RPA (for content and format review), then to the RPC (for inclusion in the Department’s Web Site), and finally to the Naval Academy Research Office. The due
date for this final title and abstract will be determined and promulgated by the RPC.

(2) Midshipmen enrolled in either EN495 or EN496 are required to present the results of their research to other students and interested faculty in a common seminar-type forum. Presentations will typically be 15 to 20 minutes in duration, include time for questions and answers, and will occur during the course’s regularly scheduled final exam period. It shall be the responsibility of the RPC to schedule and advertise this Student Research Seminar. The Department’s executive assistant (EA) will request an exam period that will help to maximize faculty and staff participation.

(3) All research project students are required to document and submit the results of their research effort to their RPA before the end of classes. A well-written report is expected. However, the actual format and scope of this report will be at the discretion of the RPA. Copies of this report will be retained by the RPA and the RPC for a period of no less than one year. Two properly endorsed hard copies and one electronic copy will be delivered to the Academy’s Research Office in accordance with reference (a).

(4) The RPA has the sole prerogative to determine and assign interim and final grades. Grades will be requested and submitted by the RPC in accordance with the Academy’s academic calendar.

5. NA&OE Student Research Project Award.

a. The Department desires to identify and properly recognize outstanding student research projects. Accordingly, the NA&OE Student Research Award has been established. Recognition shall be in the form of a certificate or plaque citing the midshipman’s research accomplishment(s), a permanent nameplate on the Department’s Student Project Research Award Plaque, and a token monetary award.

b. The Department Chair will appoint a three-person Research Project Honors Committee consisting of one representative from each majors program plus one at-large member. This committee shall develop and disseminate appropriate criteria for evaluating research project efforts; and, each year, following the spring-semester Student Research Project Seminar, select the award recipient(s). The committee’s deliberations will be guided by their own evaluation of each student’s performance, by how other faculty and staff evaluate the student’s performance, and, if deemed necessary, from a review of final research project reports. In evaluating "student performance", the committee will consider the scope and quality of the research effort along with the seminar presentation.

c. The RPC shall chair the Research Project Honors Committee, and may not be appointed as his/her program's representative.

d. All faculty members and participating staff will be invited to the Student Research Project Seminar and provided with an opportunity to evaluate student performance by completing an appropriate grading sheet provided by the RPC. The Student Research Project Seminar will be open to all others who are interested in the research being presented.
e. In order to be able to participate equitably in this award competition, midshipmen who, in the opinion of the Research Projects Honors Committee, completed an excellent research project (EN495) during the fall term will be invited to again present their research efforts during the spring-semester seminar.

f. The Research Projects Honors Committee will attempt to select the single most academically excellent research project from among those presented. However, it shall be the Committee’s prerogative to select more than one award recipient or to select no one.

6. Action.

a. The Department Chair will appoint the Department's RPC and the members of the Research Project Honors Committee, approve midshipman enrollment in research project courses, facilitate faculty involvement and resource expenditures, and, in general, monitor the conduct of research project courses within the Department.

b. The Research Project Coordinator shall monitor the conduct of all Department research project courses including submission of project proposals, final project reports, official titles, and abstracts. The RPC will also be responsible for scheduling proposal and final project presentations. In addition, the RPC will prepare appropriate correspondence relating to Department reporting requirements to higher authority and be responsible for timely grade submission.

c. Members of the Research Project Honors Committee shall be responsible for selecting the most academically excellent research project effort(s) each academic year.

d. The Research Project Advisor(s) will assist the research student in the preparation of the research proposal and any proposal presentations, guide the midshipman’s research efforts including assignment and assessment of project milestones, assure that the proper documentation is submitted, and evaluate the quality of the student’s research effort by assigning progress and final grades.

e. Prior to approving an advisee’s request for pre-registration in a research project course, each Academic Advisor will advise the student of the importance of reading and following both this instruction and Reference (a). The advisor should also ensure that the relevant enrollment criteria are satisfied and that the proposal form is properly completed and forwarded in a timely manner.

f. A Midshipman desiring enrollment in a research project course needs to be aware of all reporting requirements and responsibilities. Once enrolled, he or she will be responsible for accomplish the research effort delineated in their proposal to the best of his or her ability. The midshipman will also be expected to provide, in a timely manner, appropriate reporting documentation, both oral and written.

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