ACADEMIC DEAN AND PROVOST INSTRUCTION 1531.79

From: Academic Dean and Provost

Subj: MIDSHIPMAN RESEARCH PROJECT COURSES

Ref: (a) ACDEANINST 1531.68
     (b) ACDEANINST 1531.50B
     (c) ACDEANINST 1531.78
     (d) ACDEANINST 1531.59B

Encl: (1) Project Proposal

1. Purpose. To establish procedures for midshipman research project courses.

2. Cancellation. USNAINST 1531.52.

3. Background

   a. The opportunity to engage in research under the guidance of a faculty member can enrich the educational experience of a midshipman, while providing the student an opportunity to study independently in an area of special interest. In a research project course, a midshipman often seeks to investigate that which is new or unexplored in a discipline, or to examine previously reported research results within a new context or via a new approach. Research by midshipmen contributes significantly to the Naval Academy's goal of promoting habits of lifelong learning among its graduates.

   b. This instruction provides guidance and direction to midshipmen interested in enrolling in research project courses at the Naval Academy. A more extensive research opportunity exists for selected midshipmen under the Trident Scholar Program described in reference (a).

4. Course Designators and Credits

   a. Research project courses shall normally be three credits, designated as XX495 (fall) and XX496 (spring or summer). No research project course shall carry fewer than three credits and no midshipman shall be permitted to carry more than one research project course in a semester.

   b. Research project courses may be offered by any department.

   c. One or two credit research preparation courses (previously designated as XX491 through XX494) may be offered as upper level seminar or special topics courses, using the appropriate XX48# designator. Additional information about these courses is available in reference (b).

   d. Travel-study courses do not constitute midshipman research project courses. Additional information about the policies pertaining to travel-study courses is available in reference (c).

5. Eligibility

   a. Since research project courses in any discipline are expected to be at an advanced level (hence the course number of 495 or 496), they will normally be restricted to first and second class midshipmen who have had more than an introductory course in the subject area being studied. With the approval of the Associate Dean for Academic Affairs, a third class midshipman with extraordinary academic preparation resulting from significant validation or overloading may enroll in a research project course.

   b. Additional eligibility requirements or limits on the number of research project courses that may be counted for a midshipman will be specified by the midshipman research course policy of the department concerned. Departmental midshipman research course policy statements must be submitted according to the schedule outlined in an ACDEANNOTE, and the proposed policies must be approved by the Academic Dean and Provost prior to implementation.

6. Completion of Matrix Requirements. Research project courses may be used to satisfy the requirements of an academic major or to meet the requirements of a free elective in the core curriculum. Departments with majors programs may determine how these courses will count to satisfy the requirements of their majors.

7. Actions required

   a. Midshipmen

   (1) Proposal and Registration. Midshipmen must register for research project courses during the announced registration period within the semester preceding that in which the research project course is to take place. A midshipman intending to register in such a course must consult with a prospective faculty mentor to

plan the research project. Once the specifics of the project
have been determined and the faculty mentor(s) identified, the
midshipman must develop and submit to the chair of the sponsoring
department a proposal that describes the planned research
project. The format for the project proposal is described in
enclosure (1). All research project course proposals are due to
the chair according to the deadline and format defined by the
department research course policy statement. The rules for
dropping or adding a research project course are the same as for
other courses. These can be found in reference (d).

    (2) <u>Project Requirements</u>

       (a) <u>Web Pages</u>. During the semester, the Naval Academy
Research Office will maintain "Midshipman Research" web pages.
At the start of each semester, department chairs will forward the
names of the midshipmen conducting research in their departments
to the Research Office, along with the names of the associated
faculty mentor(s), the project titles, and the project abstracts.

       (b) <u>Written Reports</u>. Each midshipman enrolled in a
research project course must produce a final, well-written report
describing the project goals, methodologies and outcomes. Two
(2) hard copies of this report, signed by the midshipman
researcher and the midshipman's project faculty mentor(s) and
endorsed by the department chair, must be delivered by the
midshipman to the Naval Academy Research Office prior to the
first day of final examinations in the semester. In addition,
one electronic copy (in MS Word; on a 3.5" disk or CD) of the
final report must be submitted to the Research Office. The
format, style and content requirements for the final report will
be set by each department in its midshipman research policy, and
these requirements must be promulgated, in writing, to the
midshipmen at the start of the research project. The
midshipman's paper should include an abstract, an introduction to
or background for the project, a statement of the goals of the
project, a description of the methodology employed in the
research effort, an analysis of the work accomplished and the
results obtained, and a conclusion.

       (c) <u>Presentations</u>. Each student enrolled in a research
project course must present an oral summary of his or her
research at the end of the semester in which the project was
undertaken. These presentations shall be open to all faculty,
staff, and midshipmen, as well as to invited guests from outside
of the Naval Academy. The Registrar is available to assist in
scheduling XX495 (fall) and XX496 (spring) presentations during
the first day of the final examination period, if the use of that
time is desired. The chair of the sponsoring department will
advise research students and their faculty mentors of the

scheduled times for their presentations. It is suggested that
the presentation be in the form of a poster presentation or a
short verbal paper followed by a question-and-answer period.
Requirements concerning the format, style and content of the
presentation will be set by each department in its midshipman
research policy statement, and these requirements must be
promulgated, in writing, to all interested parties at the start
of each semester. If there are changes to the midshipman's
original project title, mentors, or abstract, these should be
forwarded via the department chair 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.

   b. <u>Faculty Mentors</u>

     (1) Faculty members are urged to support midshipman research
project courses by encouraging qualified students to enroll in
such courses, by suggesting appropriate projects, and by serving
as project advisers.

     (2) Faculty mentors are expected to serve as expert academic
guides, critics, editors, and role models for their research
students. From the initial stage of proposal preparation through
the completion of the research and the submission and delivery of
a well-written final report and presentation, advisers are
expected to actively nurture their research students and foster
their development as independent scholars. It is very strongly
recommended that faculty research mentors have regular weekly
contact with their research students. Faculty research mentors
must also ensure that their midshipman research advisees comply
with all Naval Academy and department administrative requirements
pertaining to their research projects.

     (3) Faculty members who agree to mentor a midshipman in a
research project course will endorse the midshipman's research
proposal to the chair of the sponsoring department, including
suitable commentary about the project's significance and the
midshipman's preparation and ability to pursue the project.

     (4) Grades for a research project course will be determined
and submitted to the Registrar, via the department chair, by the
midshipman's faculty mentor(s). The semester timeline for grade
submission will follow the same schedule that applies to all
other courses. Faculty research mentors are encouraged to
consider the assessments of other faculty members in the
department as they assign interim and semester grades in these
courses.

c. Departments and Department Chairs

(1) Departments will formulate their own policy statements for the administration of midshipman research project courses. The department chairs must then forward the proposed policy statements to the Academic Dean and Provost via their Division Directors for approval. These policies must address (a) eligibility requirements in addition to those in section 5 above, (b) formats for the final reports and end-of-semester presentations, (c) the maximum number of research courses that may be allowed to satisfy requirements in the department's academic program (major or minor), (d) any department deadlines, and (e) midshipman requests for material, financial, and labor support necessary for their research projects. In addition, the proposed policy statement must define a department process for the evaluation of a midshipman's research proposal, and a department process for the evaluation of the final reports and presentations.

(2) Following the research policy statements formulated by each department and subsequently approved by the Academic Dean and Provost, departments will approve or disapprove applications for research by midshipmen. *In a timely fashion, department chairs will inform midshipmen and their faculty mentor(s) if the research project proposal has been approved or not.* Following this evaluation and approval process and prior to the end of the registration period, each department chair will forward to the Registrar and to the Research Office information about the midshipmen enrolling in department research courses for the next academic term. The information must include the midshipman's name, alpha number, appropriate course number, research project title, and the name(s) of the faculty mentors for the research project.

(3) The department chair (or the department Scheduling Officer) will work with the Registrar's Office, if necessary, to develop schedules for the end-of-semester presentations by the research students sponsored by the department. The department chair will send the final presentation schedules and any changes to the original abstract to the Research Office before the last full week of the semester.

(4) So that the Research Office can maintain "Midshipman Research" web pages, at the start of each semester, department chairs will forward to the Research Office, the names of the midshipmen conducting research in their departments, along with names of the associated faculty mentor(s) and the project abstract and titles.

   d. Division Directors

      Division Directors will provide suitable endorsements on the
proposed department policies regarding midshipman research
project courses, and will forward them to the Academic Dean and
Provost for approval.

   e. Naval Academy Research Office

      (1) The Naval Academy Research Office will maintain a public
web page of "Midshipman Research" information, including the
midshipman's name, alpha number, department affiliation,
appropriate course number, research project title, and the
name(s) of the faculty mentors for each research project. In
addition, the Research Office will publish schedules of the end-
of-semester presentations for all research project courses.

      (2) Annually, in an "Accounts of Naval Academy Undergraduate
Research" chronicle, the Research Office will publish the
abstracts for all midshipman projects undertaken in a semester,
as well as selected final reports. The Research Office will
report, to the appropriate department chair, any midshipman's
failure to submit the required abstract or final report copies by
announced deadlines.

8. Involvement of External Research Scientists and Sponsors.
Only Naval Academy faculty may serve as a midshipman's project
mentor. Nevertheless, the involvement of other scholars as
project consultants is encouraged and welcomed.

9. Funding Issues. Each proposal must be accompanied by a
budget, which is included as part of enclosure (1). If funds are
required from departmental and/or divisional resources, the
budget must be routed through the appropriate financial officers.
If the proposal requests expenditure of reimbursable funds, the
budget must be routed through the Research Office.

                              W. C. MILLER

Distribution:
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Midshipman Research Project Course: PROJECT PROPOSAL

Midshipman Name: _____ **Alpha #:** _____

Major: _____ **Company:** _____

Academic Year and Semester for Project: _____

1. **Title of the Proposed Project:**

2. **Faculty Mentor(s):**

     Name and Academic Rank – Department (*Primary Mentor*)

     Name and Academic Rank – Department (*Other Mentor*)

     Name, Position and Affiliation   (*Mentor outside USNA)*)

3. **Summary of the Proposed Research:**

     a.   Problem to be Addressed:

     b.   Background Information:

     c.   Describe any preparatory work undertaken by the
midshipman research student:

     d.   Abstract and Details of the Research Proposal:

4.   Research Facilities:

a. Primary facilities and equipment (type and location) to be used:

b. Available at USNA? _____   If so, where? _____

c. Available nearby? _____   If so, where? _____

d. Can be borrowed? _____   If so, where? _____

5.   Published Materials:

a. Identify the principal published paper documents you expect to use and indicate their availability. If not available through Nimitz Library, how will they be obtained?

_____

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b. Identify the principal electronic publications you expect to use and indicate their availability. If any are not freely accessible over the Internet, explain how you expect to acquire access.

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6.   Requirement for Access to Classified Material:

Required: _____   Not required: _____

7.   Access to Special USNA facilities: If access to special USNA facilities (e.g., the Hydromechanics Laboratory, the Technical Support Division (TSD), CADIG, etc.) is required, a letter from the operational manager of the facility **must** be included with this Project Proposal. This memo should indicate that the involved parties have discussed the use of the facility and that the use and support requirements of the project can be met without causing unnecessary hardship on the facility operators or equipment.

8. Estimate of Costs: Provide this information by Fiscal Year, which starts 1 October and ends 30 September. Any required startup funds needed prior to 30 September must be requested in the budget of the earlier fiscal year.   When completing this section of the project proposal, be sure to review the "NOTES" section provided below.

	__FY-Fall semester__	__FY-Spring semester__
a. Midshipman travel:	_____	_____
b. Midshipman per diem:	_____	_____
c. Consumable Supplies:	_____	_____
d. Equipment (over $200):	_____	_____
e. Equipment (under $200):	_____	_____
f. Other contractual services:	_____	_____
TOTALS:	_____	_____
GRAND TOTAL:	_____	

NOTES:

♦ *Travel:* Possible destination:_____

   Probable dates: _____

   Purpose: _____

♦ *Equipment over $200:* Describe the equipment and provide a letter of justification from the project mentor for any request for equipment over $200.00.

♦ ***Expenditure of funds from department or division accounts:*** The budget proposal must be routed via the Department or Division Financial Officer, as appropriate.

♦ ***Expenditure of reimbursable funds:*** The budget proposal must be routed via the Naval Academy Research Office.

♦ ***Total expenditures:*** A letter of justification from the adviser **must** be included with this Project Proposal if the total estimated cost for the project exceeds $500.00.

_____

_____, _____

Signature of Midshipman,   Date