

MECHENGRDEPTINST 1531.15C
1 August 2001

MECHANICAL ENGINEERING DEPARTMENT INSTRUCTION 1531.15C

From: Chairman, Mechanical Engineering Department

Subj: MIDSHIPMAN RESEARCH PROJECT COURSES IN THE MECHANICAL
ENGINEERING DEPARTMENT

Ref: (a) ACDEANINST 1531.79 (28 February 2001)

1. Purpose. To establish procedures for midshipman research project courses, EM495 and EM496, in the Mechanical Engineering Department.
2. Cancellation. MECHENGRDEPTINST 1531.15B (1 July 1997)
3. Background. Reference (a) establishes procedures for midshipman research project courses including specific instructions for midshipman and faculty mentors who engage in these courses. Midshipmen and faculty mentors interested in participating in these courses shall study Reference (a) and must comply with the requirements therein stated as well as those stated in this Mechanical Engineering Department Instruction.
4. Midshipman Research Project Course Coordinator. One of the full time faculty members of the Mechanical Engineering Department, following appointment by the Department Chair, will serve as the Department Midshipman Research Project Course Coordinator. The duties of this faculty member are specified hereafter in this instruction.
5. Eligibility. 1/C and 2/C midshipmen majoring in Mechanical Engineering, or in other majors with the concurrence of their department chair, are eligible to request approval to conduct a midshipman research project course in Mechanical Engineering. A minimum CQPR of 3.0 is also required. Exceptions to this last requirement will be considered on a case by case basis.
6. Utilization for Matrix Requirements. Only one midshipman research project course may be counted toward the Mechanical Engineering Department matrix (graduation) requirements. Additional courses may be taken but will not be counted toward the matrix requirements. A midshipman research project course will count toward the fulfillment of a track in the Mechanical Engineering Department only if the course content is relevant to the specific track.

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7. Procedure for Applying. Midshipman interested in pursuing research project courses must gain the concurrence of a faculty mentor or mentors prior to preparing a proposal and prior to preregistering for other EM495 or EM496. Midshipman should approach prospective faculty mentors early in the semester prior to the one in which they wish to conduct the research course. Information will be posted on the department website to assist midshipmen in locating mentors. A completed proposal must be submitted to the Department Research Project Course Coordinator. This shall normally be done prior to the end of the registration period of the semester preceding the one in which the research project course is to be conducted. Proposals submitted later than the end of the first full week of classes for the semester in which the research course is to be conducted will not be considered. The required proposal format is given as enclosure (1) of reference (a) and is generally available for downloading from the Academic Dean and Provost's website. Each proposal must include a written endorsement from the faculty mentor(s) (see item 12).

8. Proposal Evaluation. Proposals will be evaluated jointly by the Department Chair and by the Midshipman Research Project Course Coordinator. The Midshipman Research Project Course Coordinator will advise the midshipman and the faculty mentor(s) of the outcome of this evaluation no later than two weeks following receipt of the proposal.

9. Report Requirements. A complete and comprehensive final report must be submitted for each project prior to the first day of the final examination period following the regulations and procedures detailed in reference (a). The report is to be completed following the Mechanical Engineering Department's formal lab report format. As stated in reference (a), two hard copies of the report signed by the midshipman and the mentor(s), and endorsed by the Department Chair, plus one electronic copy in MS Word format on a 3.5" disk or a CD must be submitted by the due date noted above. One additional hard copy is to be submitted to the Midshipman Research Project Course Coordinator by the same due date.

10. Presentation Requirements. Each midshipman researcher is required to make a presentation at the end of the semester on his/her research project. The Department Midshipman Research Project Course Coordinator will schedule these presentations to take place during the final examination period and will advise the midshipmen researchers and faculty mentors of the specific time selected. The Department Midshipman Research Project Course Coordinator will also advise the midshipman researchers and faculty mentors as to whether this presentation will be a poster assisted presentation or an oral presentation with projected visual aids. This will vary from semester to semester depending on the number of midshipmen involved.

11. Evaluation Process for Reports and Presentations. The reports from midshipman research project courses will be evaluated by the Faculty Mentor(s) who supervised the project and will be utilized in the determination of the final grade for the course. The presentations from midshipman research project courses will be evaluated by all of the Mechanical Engineering Department faculty members that attend the presentations. Evaluations will be submitted directly to the mentor(s) immediately following each presentation and will be considered in determining the final grade for the course. All Mechanical Engineering Department faculty members will be invited to the presentations. Mechanical Engineering Department faculty members serving as research mentors are required to attend all of the research project presentations of the department for the semester in which they serve as mentors.

12. Additional Responsibilities of the Faculty Mentor(s).

a. Faculty Mentor(s) shall promptly advise the Department Midshipman Research Project Course Coordinator of any minor changes in the project title, mentors, or abstract. The Department Midshipman Research Project Course Coordinator will subsequently advise the Research Office of the change. Mentor(s) should consult with the Midshipman Research Project Course Coordinator if any major changes are desired.

b. Prior to endorsing a proposal, faculty mentors should consult with the supervisors in TSD whose facilities and technicians will be involved in the project to assure that the project can be accomplished and to assure that any funds required from the budgets that these supervisors oversee are available. This includes any substantial shop work required. Mentor(s) shall attest that such consultation has taken place and has resulted in a successful endorsement of the proposal in their own endorsement of the proposal.

c. Faculty Mentor(s) must be aware of all pertinent safety issues and regulations. Involved in conducting the proposed research and must advise their midshipmen of these issues. Mentors must coordinate with the TSD supervisors to assure awareness of and compliance with applicable safety regulations.

13. Additional Responsibilities of the Dept Research Coordinator.

a. The Research Coordinator shall maintain a file of all proposals and reports submitted, and shall advise the Research Office of the title, abstract, the names of the midshipman researcher and faculty mentor(s) for each project by the end of the second full week of classes each semester.

b. The Research Coordinator shall schedule and coordinate the end of semester presentation session(s) including inviting all of the department faculty.

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c. The Research Coordinator shall advise the research office of any changes to ongoing projects that occur during the semester and will consult with the Department Chair if any major change to an approved project is requested by a faculty mentor.

d. The Research Coordinator shall maintain a page on the department website which assists midshipmen in finding research mentors and which leads midshipmen to the applicable instructions governing midshipmen research (including Trident Scholar instructions). The Research Coordinator is encouraged to also include the titles of past research project courses in the department including the names of the associated midshipmen and mentor(s).

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