

MNESOP100

From: Mechanical and Nuclear Engineering (MNE) Department Chair

Subj: MNE FACULTY RESPONSIBILITIES IN THE CONDUCT OF THE ACADEMIC PROGRAM

Ref: (a) USNA Faculty Handbook  
(b) 1940 Statement of Principles on Academic Freedom and Tenure with 1970 Interpretive Comments  
(c) PROVOSTINST 1531.22A (Content Issues in Teaching)  
(d) PROVOSTINST 1531.58A (Administration of Academic Programs)  
(e) PROVOSTINST 1531.60B (Grades and Reports)  
(f) PROVOSTINST 1531.61B (Course, Classes, and Semester Examinations)  
(g) PROVOSTINST 1531.64B (Academic Accountability)  
(h) PROVOSTINST 1531.82C (Course Policy and Syllabus Content)  
(i) PROVOSTINST 5400.1B (USNA Academic Assessment Process)  
(j) USNAINST 1531.53D (Policies Concerning Graded Academic Work)  
(k) USNAINST 1531.33G (Midshipmen Academic Performance Reports)  
(l) ENGRWEPOP 22 (Engineering and Weapons Technical Core Competencies and Core Assessment)

Encl: (1) MNE Academic Program Guiding Principles  
(2) Course Director Checklist  
(3) Pre-Semester Meeting Agenda  
(4) Instructor Policy Review Requirements

### 1. Purpose.

a. To delineate certain general and specific responsibilities of faculty members assigned to MNE with regard to the conduct of the academic program.

b. To establish the positions of Course Director (CD) and Semester Administrator (SA) and to establish and to outline the responsibilities inherent in those positions.

c. To provide guidance on balancing individual instructor pedagogical autonomy against external program requirements, external scheduling requirements, assessment activities, and student fairness across sections and semesters.

### 2. Cancellation. Mechanical Engineering Department Instruction 1531.16F

### 3. Background.

a. Reference (a)-(l) establish various requirements for teaching and assessment of academic courses.

b. MNE courses for engineering majors are subject to internal and external review as part of the accreditation of our department majors and other USNA engineering majors. EM300 is part of the USNA core curriculum and is subject to separate review and assessment.

c. Many MNE courses use lab and computing facilities managed by organizations outside of MNE.

d. The goal of this instruction is to establish duties and responsibilities within an organizational hierarchy to ensure that MNE maximizes student learning while meeting external requirements and effectively interfacing with external organizations. The principles on which this instruction is based are outlined in Enclosure (1).

#### 4. Policy

a. Each course offered by MNE will have a Course Director (CD). The appointment of the CD will be made by the Department Chair in consultation with the Program Directors. CDs will serve in this capacity until a new appointment is made. The primary role of the CD is to provide long-term planning, continuity, and completion of accreditation and assessment requirements. Additionally, the CD facilitates an appropriate level of consistency and communication from semester to semester and between instructors.

b. If needed, the Department Chair and CD may identify the individual that will serve as Semester Administrator (SA) in a given semester. The SA is an optional position that is typically used when a CD is not teaching a course in a given semester. The CD may choose to delegate some authority to the SA to execute some of the coordination and assessment responsibilities for a course in a given semester.

c. The assignment of faculty members to teach a particular course will be made by the Department Chair in consultation with Program Directors for Mechanical Engineering and Nuclear Engineering.

d. All MNE courses will have a final or go through the process of notifying the Provost of an exception. Final exams will normally be three hours in length. The CD has the discretion to require a final exam.

e. Final examinations in multi-section courses will be common to all sections of that course unless an exception is approved by the Department Chair. Common finals will typically use common grading practices across all sections (e.g. graded "problem-by-problem"). Specific grading policies for the common final will be at the discretion of the CD. The CD establishes the final exam weight toward the overall grade.

f. For lab based courses, the CD will establish the minimum required labs, the weight of the lab toward the overall grade, and the minimum level of student work required for each lab.

5. Action.

a. For each semester a course is offered, the CD shall complete all items specified as CD in the Course Directing Checklist (Enclosure (2)) that are appropriate to the course. Prior to the semester the CD and SA should coordinate on exactly how the responsibilities labeled "CD/SA" in Enclosure (2) will be divided.

b. Prior to the start of the semester the CD will hold a pre-semester meeting covering the agenda items in the Pre-Semester Meeting Agenda (Enclosure (3)).

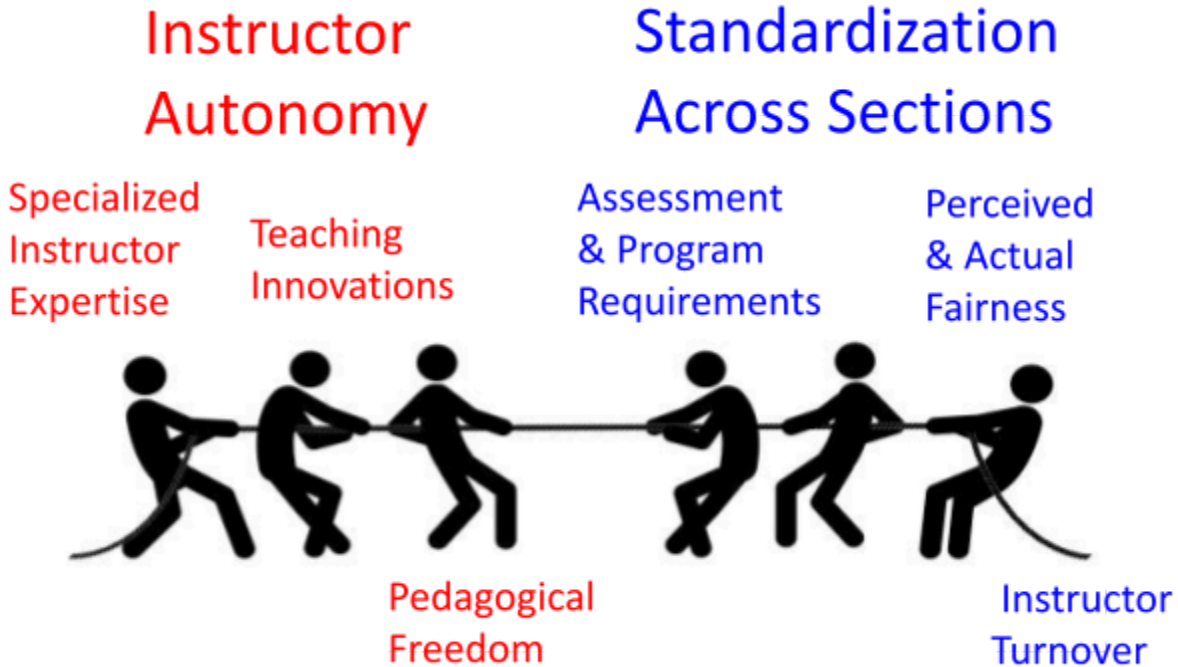
c. Prior to teaching for the first time in MNE, instructors will review the items delineated in Instructor Policy Review Requirements (Enclosure (4)).

6. Effective Date. This instruction is effective upon approval.

/s/ A.N. SMITH  
Professor and Chair

Distribution:  
AcDean  
DirDivEngr&Weps  
DeptChmnDivEngr&Weps  
Mechanical Engineering Faculty (Electronically)

## MNESOP 100 Enclosure (1) MNE Academic Program Guiding Principles



In multi-instructor courses there is often a tension between instructor autonomy and standardization across sections. The principles outlined in this enclosure are intended to guide MNE instructors, course directors (CDs), and semester administrators (SAs) in maximizing student learning while balancing tensions that may arise during teaching.

**Principle 1: Bring Instructor Expertise to the Classroom.** We are fortunate to have faculty members with a diverse set of professional backgrounds including technical areas in engineering, fleet applications, and STEM teaching and learning. The ideal offering of a course is fundamentally different for instructors with different specializations. Instructors should build a course that leverages their expertise to bring the most to their students while meeting the required course objectives.

**Principle 2: Innovation Requires Instructor Autonomy.** Teaching and curriculum innovation stems from instructors having the freedom to experiment with new teaching methods and approaches to the curriculum. Instructors should have the freedom to explore new approaches to how the course objectives are taught. Other instructors in the same course should exercise patience with colleagues that are trying different approaches.

**Principle 3: Empower Instructors to Time and Sequence Content.** Instructors are in the best position to determine what their students need to achieve the course objectives. In the absence of external constraints, instructors will be free to make day-to-day adjustments to the sequence of topics, time required to meet the objectives, and timing of student assessment. Instructors

should communicate challenges in achieving the objectives in the nominal time allowed to the other instructors and the CD/SA.

**Principle 4: Be Fair.** We owe it to all students within a semester and across semesters to have similar workloads, grading standards, and experiences in the course.

**Principle 5: Be Perceived as Fair.** When students perceive their workload is higher than other students in the same course, motivation and attitude toward the course and instructor is negatively impacted. Be conscientious to not make your course appear easier than your colleagues' offerings of the same course. If one instructor decides to take a different approach they should clearly communicate the differences in teaching approach to students so as to head off perceptions of unfairness.

**Principle 6: Support External Requirements.** Instructors are required to cover the broad objectives that are tied to ABET accreditation, other supported courses, and the Naval Academy Core Curriculum. Instructors must support internal and external assessment activities. Instructors must comply with scheduling requirements tied to external groups (lab groups, field trips, etc).

**Principle 7: Instructor Coordination.** Aspects of our department require greater instructor coordination than elsewhere in academia: higher than normal instructor turnover, narrower scope of future employment of our students, higher level of communication between students, and common final exams. Our courses run best when instructors coordinate with one another and communicate regularly.

**MNESOP 100 Enclosure (2) CD Semester Checklist**

Timeframe	Assigned to	Description
Feb (fall) Sep (spring)	CD	Review course objectives, prerequisites, and description in MIDS. Propose major changes to the Curriculum Committee for approval.
Feb (fall) Oct (spring)	CD	Select the textbook for the course and communicate the selection to the bookstore via the MNE survey
Apr (fall) Oct (spring)	CD	Review lab equipment and inventory expendable lab supplies and provide input to associated lab groups.
May (fall) Nov (spring)	CD	For multi-instructor courses, share recent syllabus, homework, exams, and teaching resources with the next semester's instructors. The preliminary notifications to the instructors are intended to allow them to start course planning. In many cases course development activities may occur after the preliminary notification to instructors. Attempt to highlight those areas that are likely to undergo further development.
May (fall) Oct (spring)	CD	Solicit feedback from assigned instructors about potential changes to the labs and promulgate a desired lab schedule to the cognizant Lab Director and Lab Supervisor.
May (fall) Oct (spring)	CD	Review the electronic storage area for the course -Remove or archive out of date files -Update drive permissions -Sequester any material that can't be shared with students to clearly labeled folders
May (fall) Oct (spring)	CD	If you intend to use a semester administrator, consult with the department chair and identify which instructor will be the semester administrator.
May (fall) Nov (spring)	CD	Solicit instructors for their desire to hold X-period exams. If X-period is requested by an instructor, coordinate with the Department Executive Assistant to notify the Provost's office.
Week before classes (fall) Dec (spring)	CD	For courses with a semester administrator assigned, indicate which duties in this Enclosure and in Enclosure (3) will be completed by the SA and which will be completed by

		the CD. In absence of explicit instruction the CD should complete all items labeled "CD/SA" below.
Week before classes (fall) Dec (spring)	CD/SA	Hold the Start of Semester Meeting in accordance with Enclosure (3) of this instruction.
Week before classes (fall) Dec (spring)	CD/SA	Email students if there are any special instructions associated with obtaining the course textbook.
Week 1	CD/SA	For courses with MGSP leader(s) assigned, meet with the MGSP leader(s) and review expectations. Provide MGSP leader(s) with a copy or access to the course textbook. Specifically review any changes to the course since the MGSP leader(s) took the course. Highlight course material from prior semesters that you do NOT want the MGSP leader(s) to share with the students. Review appropriate and inappropriate levels of homework and lab help with the MGSP leader(s).
Weeks 1-16	CD/SA	Meet with instructors regularly on a schedule established at the pre-semester meeting (Enclosure (3)).
Week 13	CD/SA	Make any modifications or additions to standard Student Opinion Form (SOF) questions. SA administrators will need to be added to the SOF system by the chair or associate chair. Notify instructors when they have permission to open the SOFs to their students.
Week 13	CD/SA	Review due dates for grades and promulgate a plan for developing, grading, and proctoring the common final and alternate final. Ensure the plan includes development of a rubric and accounts for any required course assessment activities. Highlight exam security processes and procedures.
Week 16	CD/SA	Solicit instructors to populate an electronic storage area with content that may be useful to future instructors: demos, quizzes, power points, structured notes, videos, in-class demos used, etc.
Week 16	CD/SA	Initiate a discussion among the instructors about how final exam "question and answer" sessions will be scheduled and communicated to students to avoid the perception of

		"gouging" the final. Encourage instructors to open their question and answer sessions to all students in the course.
Week 16/Finals week	CD/SA	Establish a plan for printing and distributing the final and alternate final. Establish a communication plan during the common final (e.g. group text) so unexpected issues before or during the exam can be promptly addressed.
After final is graded	CD/SA	Solicit input from instructors and set the final exam curve (if any) and mapping from numerical final exam score to letter grade. Once a mapping from final exam score to final exam letter grade is established, all instructors will report the final exam grade in MIDS in accordance with the mapping.
After final is graded	CD/SA	Solicit feedback from instructors on potential course improvements.
After final is graded	CD/SA	Ensure that the course electronic storage area has been updated with final exam, final exam rubric, and other documents that may be useful to future instructors.
After final is graded	CD/SA	Remind instructors that student final exams must be retained in order to give students ample opportunity to review their exams.
After final is graded	CD	Ensure that all assessment data is submitted promptly after the end of the course.

## **MNESOP 100 Enclosure (3) Pre-Semester Meeting Agenda**

The pre-semester meeting typically takes place in mid-August for the fall semester and mid-December for the spring semester.

The meeting should be scheduled and run by the Course Director (CD) (or the Semester Administrator (SA))

Except in truly exceptional circumstances (e.g. instructor that hasn't yet reported) all instructors teaching the course should attend this meeting.

### **Prior to the meeting:**

- Provide instructors with a nominal week-to-week schedule for the course.
- Provide instructors with a nominal course policy statement for the course.
- Provide instructors with the suggested homework problems.
- Provide instructors access to a nominal or previous final exam.
- Ensure instructors have access to the required textbook
- Encourage instructors to review the MNE Academic Program Guiding Principles (Enclosure (1))

### **Agenda for the Meeting**

- Course Goals and Final Exam
  - Review each broad course objective.
  - For each course objective, review general student expectations for the final exam (general problem types, allowed student resources, etc).
  - Establish and communicate final exam policies to include scope of the final exam, types of questions, percentage of the overall grade for the final exam, and allowed resources.
  - Review important objectives from pre-req, co-reqs, and supported courses. Discuss any required timing associated with co-reqs.
  - Clearly delineate and communicate if there are any materials that can't be shared with students (e.g. old finals).
- Labs/Projects (if applicable)
  - Discuss Course Policy statement regarding grade breakdown for labs. In courses with a heavy lab component, a best practice is to set the lab weight high enough to encourage students to complete lab reports.
  - Distribute scheduled lab dates for discussion.
  - Solicit instructor feedback and then establish and communicate the minimum lab/project requirement and minimum number of formal lab reports required.
  - Solicit instructors for their input on the lab portion of the course. The CD is the authority for the lab and project requirements of the course. Instructors' flexibility to resequence, delete, or significantly reduce expectations is typically limited.

Changes that significantly reduce student workload, add significant workload to the associated lab group, or impact course schedule will typically NOT be approved by the CD. On the other hand, individual instructors adding lab requirements that have minimal scheduling or tech support requirements should typically be approved (e.g. instructors might use their own handout and make small adjustments to the lab)

- Course Assessment
  - Identify and assign responsibility for specific deliverables required by the MNE Assessment coordinator.
  - In ABET academic years, identify and assign responsibility for specific deliverables required by the MNE ABET coordinator
  - Identify and assign responsibility for deliverables required by the CD for internal course assessment
- Order of Topics
  - Ensure instructors have access to the nominal week-to-week course coverage.
  - Ensure assigned instructors are aware of components of the course requiring advanced coordination with external entities or specific timing. For example, coordination with lab personnel, field trips, external guest lecturers, etc.
  - Have each instructor share any plans to change the order of topics. Ensure that any differences in order of topics is consistent with the availability of labs or other external scheduling commitments. In general instructors are free to modify the order of topics unless it presents an undue burden on the scheduling or rescheduling of external obligations (labs, guest speakers, co-req requirements, field trips, etc).
  - For the spring semester, remind instructors that they need to develop a plan for Capstone Day to be shared with the CD/SA later.
- Homework and Quizzes
  - Ensure instructors have access to the suggested homework for the course. Instructors are not required to assign the exact problems, but make sure that the instructors are aware that the suggested homework content frames the expectations for the course and final exam coverage.
  - For multi-instructor courses, have each instructor share their plan for homework and quizzes to include grade weight for each. Instructors are not required to use the same homework and quiz approach so long as the students are ultimately required to master concepts similar to the suggested homework content. Additional thought and discussion should be given to perceived workload.
  - Specifically discuss a plan for distribution of homework solutions to students. Instructors can have different policies, but one instructor should not distribute solutions to particular problems prior to another instructor who wants to withhold solutions. If there are conflicts, the instructor that wants to distribute solutions in advance may need to choose alternate problems to assign.
- Midterms

- Ensure all instructors are aware of the requirement to hold one substantial assessment prior to assignment of the six week grade in mids.
- For multi-instructor courses, have each instructor share their plan for midterm timing, length, scope, and grade weight. Instructors are not required to use the same midterm plan as long as the students are being tested to a similar level of difficulty and the midterm plan prepares students for the common final.
- Discuss electronic sharing of midterms. All instructors are encouraged to share midterms with other instructors- discuss exceptions with the CD/SA.
- Method of Presentation
  - Have each instructor share their intended method of presentation (chalkboard, power point, flipped classroom, etc) with the group for situational awareness and professional development.
- Grading
  - Grade Bins. Grades are at the discretion of individual instructors. However, instructors using wildly different grade bins can create a perception of unfairness across sections and skew the actual value of the common final. Have instructors share their intended grade bins.
  - Grading of student work. Initiate a discussion among instructors about grading of student work: partial credit, late or unsubmitted work, amount of credit associated with proper unit analysis, etc. Instructors are not required to have identical policies, but all instructors should be aware of major differences in policy. Additionally, instructors should reach agreement on the general approach that will be used to grade the common final.
  - 6 and 12 week grade calculations. For situational awareness, have each instructor discuss how they will calculate 6 and 12 week grades in mids.
  - What overwrite policies do instructors intend to use (e.g. can the final overwrite the lowest midterm)? Policies that effectively weigh the common final more are at the discretion of instructors, but no policy should undermine the minimum weight of the lab or final set by the CD.
- MGSP (if applicable)
  - Provide instructors with the MGSP schedule (if known) and names of MGSP leader(s)
- Meeting plan
  - For multi-instructor courses, solicit input from instructors and establish a plan for all instructors to meet throughout the semesters. No specific meeting frequency is mandated, but the meeting should be frequent enough to allow instructors to communicate common student difficulties, share successful teaching methods, sync up on student standards and workload, mentor instructors that are new to USNA or new to the course, and remind instructors of final exam policies and coverage.
  - For lab courses, the meeting plan should allow for a review of lab procedures with emphasis on potential safety issues prior to each lab. Remind instructors of

required student expectations and deliverables for labs. The lab review meetings often should include technicians assigned to the lab as well as course instructors.

- All faculty teaching the course are expected to attend all course meetings throughout the semester.

## **MNESOP 100 Enclosure (4) Instructor Policy Review Requirements**

All MNE instructors should be familiar with the following policies and resources.

New instructors should review all of the listed policies prior to teaching for the first time.

The MNE Associate Chair will ensure these policies are periodically reviewed at MNE Department Meetings on a rotating basis. All instructions will be linked on the [MNE resources page](#) (including this instruction in its entirety)

1. [PROVOSTINST 5400.2 Series Faculty Handbook](#)
2. [PROVOSTINST 1531.58 Series on Administration of Academic Program](#)
3. [PROVOSTINST 1531.60 Series on Grades and Reports](#)
4. [PROVOSTINST 1531.82 Series on Course Policy and Syllabus Content](#)
5. [PROVOSTINST 1531.61 Series on Course, Classes, and Semester Examinations](#)
6. [PROVOSTINST 1531.64 Series on Academic Accountability](#)
7. [PROVOSTINST 5400.1 Series on USNA Academic Assessment Process](#)
8. [USNAINST 1531.53D Policies Concerning Graded Academic Work](#)
9. [PROVOSTINST 1531.22 Series on Content Issues in Teaching](#)
10. [USNAINST 1531.33G Midshipmen Academic Performance Reports](#)
11. [CTL Teaching Resources Page](#)
12. [MSC webpage and service request process](#) (for malfunction classroom displays)
13. [PROVOSTINST 1531.62 Series on Academic Reporting System](#)
14. [PROVOSTINST 1531.6 Series on Acceptable Standards of Written Communication](#)
15. [PROVOSTINST 1531.12 Series on Midshipmen Evaluation of Classes and Instructors](#)
16. [PROVOSTINST 1531.80 Series on Midshipmen Academic Performance Reports](#)

It is recommended that new instructors review these additional documents:

1. [USNA Strategic Plan](#)
2. [USNA Effectiveness Assessment](#)