School of Mechanical Engineering
TEACHING LOAD MODEL
Effective Marcg 27, 2025

With input from as many stake holders as possible, the School of ME has developed the following Teaching Load Model. The objective of this model is to capture and accurately measure the percent effort of faculty for the instructional component of their duties (in addition to research and service duties). The framework begins with a base model incorporating the effects of enrollment and assigned TA support, and then identifies other added roles that would increase the load further.

1. BASE LOADS

1.1. ME Lecture-Based Undergraduate Courses

ENROLLMENT:	SUPPORT:	TEACHING LOAD:
12* < Enrollment < 40	Up to 10 hrs/wk of UG Grader	TL = 11%/cr hr
40 < Enrollment < 80	¼ TA or up to 20 hrs/wk of UG Grader**	TL = 11%/cr hr
80 < Enrollment < 120	½ TA or up to 40 hrs/wk of UG Grader**	TL = 11%/cr hr
For any additional 40	¼ TA or up to 20 hrs/wk of UG Grader**	

***Minimum Enrollment is 12 Students for UG Courses.**
****Faculty of Record have the option to choose between utilizing UG graders or Graduate TAs**

1.2. ME Core Courses with Lectures and Labs

- ME 26300 (2 cr hrs lec, 1 cr hr lab):
  - 33% TL for instruction of lecture section and one lab section
  - No faculty assigned to lab sections only
  - ¼-time TA plus UGTA at 10 hours/week for each lab section
- ME 30800 (3 cr hrs lec):
  - 33% TL for instruction of lecture section plus ¼-time TA for every 40 students
- ME 30801 (1 cr hr lab):
  - 33% TL for lab supervisions plus ¼-time TA for every lab section (~20 students)
- ME 31500 (3 cr hrs lec, 1 cr lab):
  - 33% TL for instruction of lecture section plus ¼-time TA for every 40 students
  - 33% TL for lab supervision plus ¼-time TA for every lab section (~20 students)
- ME 32300 (3 cr hrs lec):
  - 33% TL for instruction of lecture section plus ¼-time TA for every 40 students
- ME 32301 (1 cr hr lab):
  - 33% TL for lab supervision plus ¼-time TA for every lab section (~20 students)
- ME 35400 (3 cr hrs lec):
  - 33% TL for instruction of lecture section plus ¼-time TA for every 40 students
- ME 35401 (1 cr hr lab):
  - 33% TL for lab supervision plus ¼-time TA for every lab section (~20 students)
- ME 36500 (2.5 cr hrs lec, 0.5 cr hrs lab):
  - 33% TL for instruction of lecture section plus ¼-time TA for every 40 students
  - 1/8-time TA plus UGTA at 5 hours/week for every lab section

- ME 37500 (2.5 cr hrs lec, 0.5 cr hrs lab):
  - 33% TL for instruction of lecture section plus ¼-time TA for every 40 students
  - 1/8-time TA plus UGTA at 5 hours/week for every lab section

1.3. ME Elective Courses with Lectures and Labs

- ME 36300 (2 cr hrs lec, 1 cr hr lab):
  - 33% TL for instruction plus ¼-time TA for every 20 students
- ME 44000 (2 cr hrs lec, 1 cr hr lab):
  - 33% TL for instruction plus ¼-time TA for every 20 students
- ME 44400 (1 cr hr lec, 2 cr hrs lab):
  - 33% TL for instruction plus ¼-time TA for every 15 students
- ME 46300 (1 cr hr lec, 2 cr hrs lab):
  - 33% TL for instruction of lectures and one lab section (no TAs);
  - 22% TL for the instruction of lab section only with ~25 students
  - 33% TL for the instruction of lab section only with ~40 students
- ME 47500 (2 cr hrs lec, 1 cr hr lab):
  - 33% TL for instruction plus ¼-time TA for every 20 students
- ME 48900 (2.5 cr hrs lec, 0.5 cr hrs lab):
  - 33% TL for instruction plus ¼-time TA for every 20 students
- ME 49601 (2 cr hrs lec, 1 cr hr lab):
  - 33% TL for instruction plus ¼-time TA for every 20 students

1.4. Specialty Cases for Instruction

- EPICS/VIP: See teaching load for project-based courses.
- Tutorial Room Support: Tutorial rooms should be staffed by the TAs assigned to the courses via the baseload model presented above. The supervising faculty member of multi-section courses should draw appropriate TA hours from each section to staff the tutorial room.

1.5. ME Graduate Courses

Enrollment	Support	Load
6/9* < Enrollment < 20	No TA Support**	Load = 11%/cr hr
20 < Enrollment < 40	¼ TA for Grading	Load = 11%/cr hr
40 < Enrollment < 60	½ TA for Grading	Load = 11%/cr hr
For any additional 20		¼ TA for Grading

***Minimum Enrollment is 6 Students for 600-level courses and 9 Students for 500-Level Courses**
****Suitable hourly graders (if available) can be used for up to 10 hrs/wk.**

For Graduate Courses with Lab:

ME graduate courses that contain instructional labs, in which the lab is equivalent to at least 1 of the assigned 3 cr. hrs., will be assigned ¼-time TA per every 15 students enrolled in this course. There will be no additional TA assignments for the lecture-based instruction.

2. TEACHING LOAD VS. AY SUPPORT MODEL

In general, all ME faculty members, except those who have significant administrative appointments, have a 33% teaching load if they provide 10% or more of AY salary support during the academic year. This "base" teaching load is needed considering the number of students in the ME undergraduate and graduate programs. Faculty members, who teach 33% per academic year and provide more than 10% in AY salary support, can use the resource enhancement policy in ME to have 50% of the "overpay" in AY salary support returned to them as unrestricted support.

Research active faculty in the School of ME at PWL have a 33% teaching load. A 33% teaching load is equal to one nominal 3-credit hour lecture-based course. A detailed model of assigning teaching loads for other courses that have lab components or are project based is outlined in this document. This document also outlines the teaching loads for multi-section course supervision, development of new courses, etc. Research activity is determined by graduate student supervisions and AY salary support. The minimum research activity to receive a 33% teaching load is the supervision of 4 externally funded RAs. For each externally funded RA, the project funds are burdened with 2.5% of AY salary support to supervise the graduate student. This means, for faculty to receive at a 33% teaching load (1+1 nominal courses per AY), they need to provide 10% AY salary support out of externally funded research projects. For faculty who only provide 5% of AY salary support, the teaching load is 50% (3 nominal courses per AY). For faculty who do not provide any AY salary support, the teaching load is 67% (2+2 nominal courses per AY).

The School of ME allows faculty to buy out of courses below a 33% teaching load but the AY salary support goes up exponentially. If faculty would like to be at a 17% teaching load for the AY (typically 1 nominal course per AY), they need to provide 38.5% of AY salary support for the entire year. If faculty would like to be at a 0% teaching load for the AY (not teach at all), they need to provide 67% of AY salary support for the entire year.

The following expectation of percent teaching loads per AY as a function of AY salary support apply (graphically shown in Figure 1).

0% AY support = 67% teaching load (typically 4 courses per academic year)
5% AY support = 50% teaching load (typically 3 courses per academic year)
10% AY support = 33% teaching load (typically 2 courses per academic year)
38% AY support = 17% teaching load (typically 1 course per academic year)
67% AY support = 0% teaching load

Teaching Load vs AY Salary Support for New Hires:

Faculty who are newly hired into the School of ME as Assistant Professors (Pre-Tenure) are exempt from the above AY salary support model for a certain period of time as outlined here:

- 33% teaching load for the first 3 years at 0% AY Salary Support
- 33% teaching load for years 4, 5 and 6 at 5% AY Salary Support, or
  50% teaching load for years 4, 5 and 6 at 0% AY Salary Support
- After 6 years or after receiving tenure, whichever comes first, the teaching load model as outlined in Figure 1 applies.

Faculty who are newly hired into the School of ME as Associate Professors without Tenure are exempt from the above AY salary support model for a certain period of time as outlined here:

- 33% teaching load for the first 1.5 years at 0% AY Salary Support
- 33% teaching load for the second 1.5 years at 5% AY Salary Support, or
  50% teaching load for the second 1.5 years at 0% AY Salary Support
- After 3 years or after receiving tenure, whichever comes first, the teaching load model as outlined in Figure 1 applies.

Faculty who are newly hired into the School of ME as Associate or Full Professors with Tenure are exempt from the above AY salary support model for a certain period of time as outlined here:

- 33% teaching load for the first year at 0% AY Salary Support
- 33% teaching load for the second year at 5% AY Salary Support, or
  50% teaching load for the second year at 0% AY Salary Support
- After 2 years, the teaching load model as outlined in Figure 1 applies.

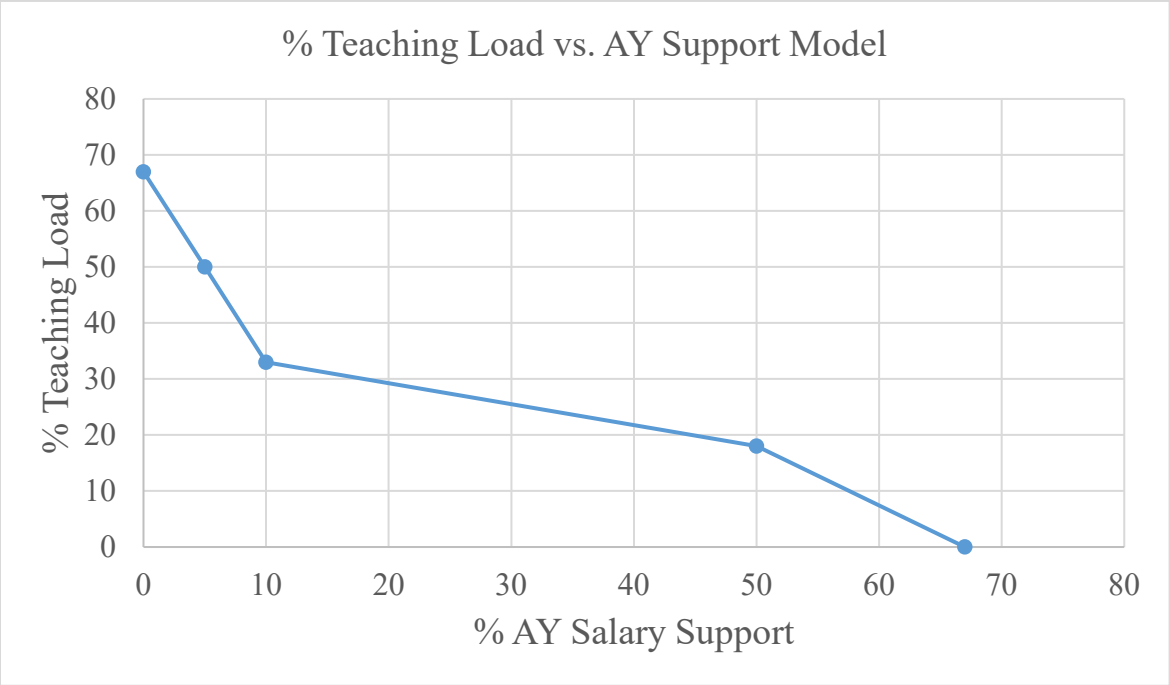

Figure 1: % Teaching Load per AY versus Expectation of % AY Salary Support

3. ADDIDTIONAL TEACHING LOADS

Beyond the base loads, some other special roles merit added teaching loads as outlined below.

Course Supervision – Any instructor who is supervising a multi-section ME core course receives additional teaching load of 5.5% for multi-section core courses, such as ME 315 and ME 365, and 11% for multi-section service courses, such as ME 200 and ME 270.

Major Course Update – Any instructor, who is taking on a major course revision (e.g., similar to the recent ME 365, ME 375, and ME 475 revisions) receives an additional 11% of teaching load for this effort.

New Course Development & Instruction – Any instructor who is developing and teaching a new course receives an additional 11% teaching load for this effort.

Teaching an Existing Course for the First Time – When teaching a existing course for the first time, instructors will an additional 5.5% teaching load.

4. TEACHING LOAD OF PROJECT-BASED COURSES

The teaching load for project-based courses for a given semester will be determined based on the student credit hours each faculty earned as indicated in Table 1 and Figure 2. Student credit hours will be calculated based the nature of projects, including students taking:

- **Credit-bearing courses**. These courses include Vertically Integrated Projects (VIP), EPICS, ME 297/498/499, offered to undergraduate students, as well as ME 597 offered to professional master students and non-thesis master students. Student credit hours will be determined based on the number of students enrolled, and the number of credit hours each student signed up for. Except for VIP and EPICS, only project-based instruction using ME course numbers will be considered. Experiential learning experiences offered in other majors will not be considered.
- **Non-credit bearing projects**. These projects include paid undergraduate research, advising student competition teams (e.g., SAE, Solar Racing, Grand Prix), etc. Student credit hours will be calculated based on the average number of hours per week each student works. Each student credit hour is equivalent to 4 hours per week working load for a student. For example, if a student works in a laboratory for 12 hours per week, 3 student credit hours will be given to the faculty advisor. Students are required to report their activities and effort through the Simplicity Database. Faculty mentors are required to approve the report for each student.

Table 1: % Teaching Load for Project-Based Credit Hours per Semester

STUDENT CREDIT HOURS PER SEMESTER	% TEACHING LOAD PER SEMESTER	EXAMPLE TEACHING ASSIGNMENTS
3	2	1 student at 3 credit hours
10	8	5 students at 2 credit hours
15	11	5 students at 3 credit hours
30	17	15 students at 2 credit hours
50	20	25 students at 2 credit hours
75	22	25 students at 3 credit hours

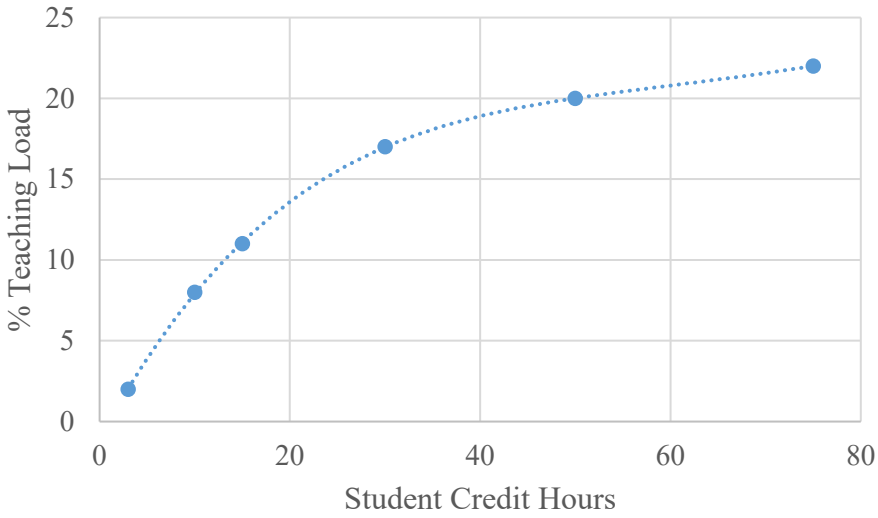

Figure 2: % Teaching Load for Project-Based Credit Hours per Semester

5. FACULTY INCENTIVES FOR ADDED LOADS AND PROJECT-BASED COURSES

When faculty members have added teaching loads and/or teach project-based courses, they will be able to collect the teaching loads to reduce their teaching assignment in one of the next academic years, including replacing a 3-credit hour, lecture-based course. However, only faculty members, who provide 10% AY salary support, can participate in this program. In addition, only project-based instruction during the academic year will be considered. project-based instruction during the summer will be handled differently, e.g., via summer salary or summer overload pay.

Small variations in AY salary support from the expected 10% will be used to identify faculty who have available capacity when a special need arises in the School of ME.