Michigan Tech

Office Memo

Office of the Provost and
Senior Vice President for Academic Affairs

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TO: Richard Koubek, President

FROM: Andrew Storer, Provost & Senior Vice President for Academic Affairs

DATE: June 12, 2025

SUBJECT: Senate Proposal 29-25

Attached is Senate proposal 29-25, “Proposal to Shelve the Minor in Naval Systems Engineering,” and a memo stating the Senate passed this proposal at their April 17, 2025 meeting. I have reviewed this memo and recommend approving the proposal.

If you concur with my recommendation, the program will be shelved since approvals from the Board, MASU, and in this case HLC are not required.

I concur X do not concur _____ with the provost’s recommendation as stated in this memo.

Richard Koubek, President

6/12/25

Date

University Senate

DATE:	April 17, 2025
TO:	Richard Koubek, President
FROM:	Robert Hutchinson, University Senate President
SUBJECT:	Proposal 29-25
COPIES:	Andrew Storer, Provost & Senior VP for Academic Affairs

At its meeting on April 17, 2025, the University Senate approved Proposal 29-25, "Proposal to Shelve the Minor in Naval Systems Engineering." Feel free to contact me if you have any questions.

The University Senate of Michigan Technological University

Proposal 29-25

1. Proposal to Shelve the Minor in Naval Systems Engineering

The Mechanical and Aerospace Engineering (MAE) Department proposes to shelve **Naval Systems Engineering – Minor EMNS** due to low student interest and challenges in offering the required MEEM4850 Naval Systems and Platforms course for the minor. The educational component of naval systems engineering will continue through the Strategic Education through Naval Systems Experience (SENSE) Enterprise.

2. Final Term for New Admits

The final term for new admits is the Spring 2025 semester.

3. Plan for Enrolled Students and Returning Students

There are currently 24 students who have declared the minor; five of these students are expected to graduate at the end of the semester leaving 19 students (1 engineering management, 2 mechanical engineering technology, and 16 mechanical engineering). The remaining declared students will be able to complete the minor using the course substitutions described in the next paragraph.

The required course for the minor is MEEM4850 Naval Systems and Platforms which has not been offered for three years due to excessive cost to the MAE Department and limited availability of qualified instructors. As a result, the MAE department has substituted MEEM4707 Autonomous Systems for MEEM4850, except for engineering technology students (MET and EET) who cannot meet the MEEM4707 prerequisites requirements. EET4311 Control Systems has been used as an MEEM4850 substitution for engineering technology students.

4. Rationale for Shelving

Student interest in the minor remains low. Over the last 5 years only 15 students have completed this minor. In contrast, over the same period, 190 students have completed the Aerospace Engineering minor and 286 have completed the Manufacturing minor.

The required course for the minor, MEEM4850 Naval Systems and Platforms, has not been offered for three years. The MAE Department must hire a temporary instructor. The salary request when a qualified instructor is available is $15,000 to teach a course with a typical enrollment of 2 to 5 students. Several options have been sought to find a replacement course. Currently, the solution is to use MEEM4707 Autonomous Systems as a substitute to MEEM4850 for mechanical, electrical, and robotics engineering students and EET4311 Control Systems as a substitute for mechanical engineering technology and electrical engineering technology. These two courses both involve control systems, but are not equivalent; effectively creating a degree credential that has different (non-equivalent) requirements depending on major. Finally, MEEM4850 Naval Systems and Platforms is the only naval systems related course in the minor, and it is not being taught.

The educational component of naval systems engineering will continue through the SENSE (Strategic Education through Naval Systems Experience) Enterprise. Students interested in Naval Systems Engineering may use enterprise project work for senior capstone design.

5. Financial Impact to the Department and University

There is no negative financial impact to the department and university. The department has already stopped offering MEEM4850 Naval Systems and Platforms due to the excessive cost.