

From: [Smith, Randy](#)
To: [Doolin, Megan](#)
Cc: [Williams, Valarie](#); [Smith, Randy](#); [Griffiths, Rob](#); [Reed, Katie](#); [Miriti, Maria](#); [Duffy, Lisa](#); [Hunt, Ryan](#); [Siston, Robert](#); [Matyas, Cory](#); [Metzler, Sandra](#); [Tomasko, David](#)
Subject: Proposal to establish a combined Bachelor of Science in Aerospace Engineering / Master of Science in Nuclear Engineering degree program
Date: Friday, September 18, 2026 10:58:15 AM
Attachments: [image001.png](#)

Megan:

The proposal from the Department of Mechanical and Aerospace Engineering to establish a combined Bachelor of Science in Aerospace Engineering / Master of Science in Nuclear Engineering degree program was approved by the Council on Academic Affairs at its meeting on September 16, 2026. Thank you for attending the meeting to respond to questions/comments.

No additional level of internal review/approval is necessary. This action will be included in the Council's next Annual Activities Report to the University Senate (July 2027).

The Office of the University Registrar will work with you on any implementation issues.

Please keep a copy of this message for your file on the proposal and I will do the same for the file in the Office of Academic Affairs.

If you have any questions please contact the Chair of the Council, Professor Val Williams (.1415), or me.

I wish you success with this important program development.

Randy



W. Randy Smith, Ph.D.

Vice Provost for Academic Programs

Office of Academic Affairs

University Square South, 15 E. 15th Avenue, Columbus, OH 43201

614-292-5881 Office

smith.70@osu.edu

Assisted by:

Katie Reed

Executive Assistant

(614) 292-5672

TO: Randy Smith, Vice Provost for Academic Programs

FROM: Graduate School Curriculum Services

DATE: July 15, 2026

RE: Proposal to establish a Bachelor of Science in Aerospace and Mechanical Engineering and Master of Science in Nuclear Engineering in the College of Engineering

The College of Engineering is proposing to establish a Bachelor of Science in Aerospace and Mechanical Engineering and Master of Science in Nuclear Engineering

The proposal was received by the Graduate School on April 22, 2026. The combined GS/CAA subcommittee first reviewed the proposal on June 1, 2026, and requested additional clarification. Clarification was received on 6/18/2026. GS/CAA supports its review by the Council on Academic Affairs.



Memo

To: Randy Smith, Vice Provost for Academic Programs, Office of Academic Affairs
From: Cory Matyas, Assistant Dean for Curriculum and Assessment
Date: April 22, 2026
Re: New BS/MS in Aerospace Engineering and Nuclear Engineering

Please find the attached proposal to establish a combined degree program leading to the Bachelor of Science in Aerospace Engineering and the Master of Science in Nuclear Engineering (AE BS/NE MS), offered by the Department of Mechanical and Aerospace Engineering. The proposal creates a formal, efficient BS/MS pathway that allows qualified students to apply select undergraduate technical elective coursework toward graduate degree requirements, supporting interdisciplinary preparation and timely degree completion.

This combined degree program is proposed to take effect in Autumn Semester 2026.

The Engineering College Committee on Academic Affairs met on April 22, 2026, reviewed the proposal, and voted to approve it 15-0-1. A college-level record of support for this proposal has been formally established.

Kowalsky, Lisa

From: Grad School Curriculum <grad-schoolcurriculum@osu.edu>
Sent: Wednesday, July 15, 2026 12:38 PM
To: Kowalsky, Lisa
Subject: FW: Re: BSMS in Nuclear Eng
Attachments: MAE Combined Degree - AE BS.NE MS Program Proposal Packet (6.2026 Updates).pdf

----- Forwarded Message -----

From: Matyas, Cory [matyas.3@osu.edu]
Sent: 6/18/2026, 12:41 PM
To: grad-schoolcurriculum@osu.edu
Cc: miriti.1@osu.edu; carpenter.1112@osu.edu
Subject: Re: BSMS in Nuclear Eng

Hello!

Please find the updated proposal attached. The responses to your questions can be found on the last 2 pages.

Have a great long weekend!
Cory



Corinne Matyas
Assistant Dean of Curriculum and Assessment
College of Engineering
Hitchcock Hall | 2070 Neil Ave. | Columbus, OH 43210
614-292-2154 | matyas.3@osu.edu

From: Grad School Curriculum Services <Grad-SchoolCurriculum@osu.edu>
Date: Thursday, June 4, 2026 at 9:26?AM
To: Matyas, Cory <matyas.3@osu.edu>
Cc: Miriti, Maria <miriti.1@osu.edu>; Carpenter, TJ <carpenter.1112@osu.edu>
Subject: BSMS in Nuclear Eng

Dear Cory,

Good afternoon! We hope that you are doing well.

We are reaching out to let you know that on **6/1/2026** the combined Graduate School – Council on Academic Affairs (GS/CAA) reviewed the proposal from the **College of Engineering** to **Establish a New combined Bachelor of Science and Master of Science in Nuclear Engineering**. GS/CAA supports this new program being reviewed at CAA with the following revisions:

1. Page 9 of the pdf file, first bullet point: “Your Faculty Advisor can require additional coursework beyond the minimum.” What are the parameters, would these likely be prerequisites or electives related to the student's interests? How many additional credits might this require?
2. Should the proposal include a timeline for students – that is, when do they apply to the M.S. program? How will students be informed of the application process, admission requirements, tuition/fees, time to degree, and other program information?
3. Please include an Advising plan for M.S. degree, especially for the Thesis plan? How are students and advisors matched or assigned?
4. An assessment plan is required

Please send the updated proposal at your earliest convenience (please cc Miriti.1@osu.edu on the email) and summarize revisions in a cover letter that indicates where these can be found in the revised proposal. Upon receipt of the revision, the Associate Dean for the Graduate School will review the revisions, and if satisfied, will move it forward to CAA for further review.

Please don't hesitate to contact us if you have any questions. Thanks!

Graduate School Curriculum Services

Maria and TJ



thread::Yjxl5geNCGKRM7czOzvYTB4::



Enclosed are the following supporting documents for the Combined Bachelor of Science in Aerospace Engineering and Master of Science in Nuclear Engineering proposal:

- Curricular Proposal Form - Combined Degree AE BS/NE MS
- Departmental Support/Proposal Letter
- AE BS Technical Elective Support for Combined Degree Proposal
- AE BS Curriculum Sheet for NE MS
- NEMS Course Plan - Combined Degree
- Updates: Answers to Graduate School Questions



**THE OHIO STATE
UNIVERSITY**

Curriculum Proposal Checklist

Title of Program:

Effective term:

College:

New/Establish:

Secondary Major Eligible:

Academic Unit:

Revise:

50% Revision:

Mark Up:

Program Contact:

Terminate:

Suspend:

Certificate Category*:

Degree/Credential:

Program of Study :

Title:

Code:

Program Focus*:

Credit hours to degree/credential:

Is this a change to the current total?

Yes

No

Program offered only online?

Yes

No

If yes, is there a signed MOU with ODEE?

Yes

No

Campus(es) where offered:

Columbus

ATI

Lima

Mansfield

Marion

Newark

Rationale:

Student Curriculum Sheet Required:

Four Year (or appropriate) Plan:

Academic Unit Curriculum Committee approval date:

College Curriculum Committee approval date:

Graduate School Council approval date*:

Regional Campus approval date*:

Council on Academic Affairs approval date:

University Senate approval date*:

Board of Trustees approval date*:

ODHE approval date*:

*** If applicable**



March 23, 2026

Proposal: Combined Bachelor of Science in Aerospace Engineering and Master of Science in Nuclear Engineering

The Department of Mechanical and Aerospace Engineering proposes the creation of a combined degree program leading to a Bachelor of Science in Aerospace Engineering (BS AE) and a Master of Science in Nuclear Engineering (MS NE).

The Department currently offers combined BS/MS pathways for all other Mechanical and Aerospace Engineering degree pairings, including AE BS/AE MS, AE BS/ME MS, ME BS/AE MS, ME BS/ME MS, and ME BS/NE MS. Establishing an AE BS/NE MS pathway would complete the set of available combined-degree options and ensure consistency across programs.

Benefits for this program include:

- **Expanded Academic Pathways for Students:** This program would provide Aerospace Engineering students with a clearly defined and efficient pathway to pursue advanced training in Nuclear Engineering, supporting interdisciplinary interests in areas such as propulsion, energy systems, radiation effects, and national security applications.
- **Time- and Cost-Efficient Degree Completion:** As with other combined degree programs, students could apply select undergraduate coursework toward graduate degree requirements, reducing time to degree completion and overall educational cost.
- **Enhanced Student Recruitment and Retention:** Offering this combined program strengthens the department's portfolio of degree options, making Ohio State more competitive in attracting high-achieving undergraduates and retaining them for graduate study.
- **Alignment with Industry and Research Needs:** The combined AE/NE background prepares graduates for careers and research in aerospace, defense, energy, and government laboratories, where expertise spanning both aerospace and nuclear engineering is increasingly valuable.
- **Consistency and Equity Across MAE Programs:** Creating this pathway ensures parity with existing BS/MS options, providing Aerospace Engineering students access to the same opportunities already available to Mechanical Engineering students.

Should you have any questions about this proposal, please don't hesitate to contact us and we'll be happy to answer any questions you may have.

Sincerely,

Datta Gaitonde, PhD

Associate Chair for Graduate Studies
Professor, Department of Mechanical and Aerospace Engineering
Director, High-Fidelity Computational Multi-Physics Laboratory
gaitonde.3@osu.edu
E409 Scott Lab

Sandra Anstaett Metzler, D.Sc., P.E.

Associate Chair for Undergraduate Studies
Professor of Practice
Department of Mechanical and Aerospace Engineering
metzler.136@osu.edu
W292 Scott Laboratory

Department of Mechanical and Aerospace Engineering
Aerospace Engineering Technical Elective Program for the BS Program

Requirements:

Aerospace Engineering students are required to earn a minimum of **9 credit hours of technical elective credit** to complete degree requirements. The Aerospace Engineering program has three technical elective tracks available to students. In addition to the standard technical elective track, there are two undergraduate research tracks (honors and non-honors) offered to students.

Standard Elective Track:

The Standard Elective Track requires that Aerospace Engineering students complete a minimum of 9 credit hours of technical elective credit hours.

- 3 credit hours of the 9 required credit hours must be from Aerospace Engineering (AEROENG) coursework 5000-level or higher
- Students may take any 5000-level, 6000 (with permission), or 7000 (with permission) level Aerospace Engineering (AEROENG), Mechanical Engineering (MECHENG), and Nuclear Engineering (NUCLREN) courses to fulfill degree requirements.

The following additional rules apply

- A maximum of six credit hours can be chosen from non-aerospace courses. Any deviations from this rule must be discussed with your academic advisor.
- A maximum of three credit hours can be chosen from the “Professional Skills” focus area and approved listed courses with prefix ENGR
- To use a course that is not listed below, you must [**submit a Technical Elective petition**](#) to the Aerospace Engineering Undergraduate Studies Committee. In the petition, you must provide clear rationale for your selection and include a current syllabus of the proposed elective.
- Students are discouraged from petitioning 2000 or 3000 level courses as electives, except those courses that are included in the approved list of electives below.
- Graduate level courses do not automatically fulfill Technical Elective credits. Please submit a [**Petition to Receive Undergraduate Credit for a Graduate Level Course**](#) to your academic advisor.

- Any Math courses used in the major core cannot be double-counted as a Technical Elective.

BS AE/MS NE Implications

The standard tack technical elective program allows students to take nuclear engineering courses.

Suggested Curriculum, Math Placement Score “L” – 8 semestersThis should be used as a **guide** only. Semester offerings and pre-requisites are subject to change.

Autumn	Spring
ENGR 1100.01 (Engineering Survey) 1 hr MATH 1151 (Calculus I) 5 hr <i>Pre-req: Math Placement Level L, or C- or above in 1148 and 1149, or in 1144, 1150</i> PHYSICS 1250 (Mechanics, Thermal, Waves) 5 hr <i>Prereq or concur: Math 1141, 1151, 1156, 1161, 1181H, or 4181H</i> ENGR 1181 (Fundamentals of Engr 1) 2 hr <i>Prereq or concur: Math 1140 or 1141; or Math 1150 or above</i> General Education 3 hr	MATH 1172 (Engineering Math A) 5 hr <i>Prereq: A grade of C- or above in 1114, 1151, 1156, 1161.xx, 152.xx, 161.xx, or 161.01H</i> PHYSICS 1251 (E&M, Optics, Modern Phys) 5 hr <i>Prereq: 1250, 1250H, or 1260; and Math 1141 or 1151 or above; or permission of instructor. Concur: Math 1152, 1161, 1172, 1181H, or 4181H</i> ENGR 1182 (Fundamentals of Engr 2) 2 hr <i>Prereq: 1181.01 or 1181.02 or 1281.01H or 1281.02H or 1281.03H. Prereq or Concur: Math 1141; or Math 1151 or above</i> ENGR 1221 (Intro to MATLAB)† 2 hr <i>Prereq: Engr 1181.01 or 1181.02 or 1187 or 1281.01H or 1281.02H or 1281.03H</i> Launch Seminar (GenEd 1201) 1 hr
MATH 2173 (Engineering Math B) 3 hr <i>Prereq: 1172 or 1544</i> CHEM 1250 (Gen Chem for Engineers) ^ 4 hr <i>Prereq: One unit of high school chemistry, and Math Placement Level L or M; or a grade of C- or above in Math 1130, 1131, 1148, or 1150, or above</i> AEROENG 2200 (Intro to AAE I) 4 hr <i>Prereq: Physics 1250 or 1260; and Math 1152, 1161, 1172, or 1181H, or a grade of C- or above in Math 1544. Prereq or concur: Math 2173, 2153, or 2162</i> MECHENG 2040 (Statics & Mechanics) 4 hr <i>Prereq: Engr 1181 or 1187 or 1281H, and Physics 1250 or 1260, and Math 1152 or 1161 or 1172 or 1181H</i> General Education 3 hr	MATH 2174 (Lin Alg & Diff Eq) 3 hr <i>Prereq: 2173</i> AEROENG 3520* (Flight Vehicle Dynamics) 3 hr <i>Prereq: 2200. Pre-req or concur: MECHENG 2030</i> AEROENG 2405* (Thermodynamics) 3 hr <i>Prereq: 2200</i> MECHENG 2030 (Dynamics) 3 hr <i>Prereq: 2010 or 2010H or 2040</i> ECE 2300 (Circuits) 3 hr <i>Prereq: Physics 1251 or 1261, and Math 1172 or 1544 or 2153 or 2162.01 or 2162.02 or 2182H or 4182H, and CPHR 2.0 or above</i>
AEROENG 3521* (Flight Vehicle Control) 3 hr <i>Prereq: 3520</i> AEROENG 3560* (Fluids I) 3 hr <i>Prereq: 3520 and 2405; and Math 2174, or 2568 and 2415</i> AEROENG 3542* (Flight Vehicle Structure 1) 3 hr <i>Prereq: 3520 and MechEng 2030 and 2040, or 3520 and MechEng 2010 and 2020 and 2030</i> AEROENG 3581* (Numerical Methods) 3 hr <i>Prereq: Math 2174, or 2568 and 2415</i> General Education 3 hr	AEROENG 3522* (Fundamental Astronautics) 3 hr <i>Prereq: 3520 and 2405</i> AEROENG 3543* (Flight Vehicle Structure 2) 3 hr <i>Prereq: 3542</i> AEROENG 3570* (Gasdynamics) 3 hr <i>Prereq: 3560</i> AEROENG 3580* (Heat Transfer) 3 hr <i>Prereq: 3560</i> General Education (Theme: Citizenship etc.) 4 hr
AEROENG 4510* (Experimental Projects 1) 2 hr <i>Prereq: 3543 and 3570, and Sr standing</i> AEROENG 4515* (Pre-Dsgn of Atmos Flt Veh) 3 hr <i>Prereq: 3543 and 3570 and 3521 and 3580 and Sr standing. Prereq or concur: 4550</i> or AEROENG 4517* (Space Veh and Systems 1) 3 hr <i>Prereq: 3521 and 3543 and 3570 and 3580, and Sr standing. Prereq or concur: 4550.</i> AEROENG 4550* (Flight Veh Propulsion) 3 hr <i>Prereq: 3570</i> Technical Elective 3 hr General Education 3 hr General Education 3 hr	AEROENG 4511* (Experimental Projects 2) 3 hr <i>Prereq: 4510</i> AEROENG 4516* (Dsgn of Atmos Flt Veh) 3 hr <i>Prereq: 4515</i> or AEROENG 4518* (Dsgn Space Veh and Sys 2) 3 hr <i>Prereq: 4517</i> Technical Elective 3 hr Technical Elective 3 hr General Education (Theme: Student Choice) 4 hr

Total Hours to complete the degree program = 128

*These required courses can only be taken after admission to the Aerospace Engineering major program.

^ CHEM 1210 (5 hours) can substitute for CHEM 1250.

†CSE 1222 (3 credit hours) can substitute for ENGR/CSE 1221.

Courses in **bold face** are only offered during the listed term.

Some technical electives can be double-counted for the NE MS program.

All students must satisfy a 32 credit hour minimum for math and basic sciences. Students with high math or science placements and transfer students without credit for lower courses should consult with the MAE Undergraduate Academic Advisors to ensure this minimum is met. Such students may be required to take extra coursework to meet graduation requirements.

Passing Criteria

A passing grade in a course is defined as a D or better. By earning a D or better, you are earning credit for the course. Some courses may require a C- or better in a pre-requisite course. Some majors/minors require that you earn a C- or better in courses to remain in good standing in the program. Aerospace Engineering requires that students earn a C- or better in MECHENG 2040 and AEROENG 2200 to be in good standing in the major, but all other major courses would be complete with an earned D grade. Please note that must have a 2.0 or better Major GPA (MPHR) to graduate with a B.S. Aerospace Engineering.

Acceptance Criteria

Please review admission/acceptance criteria on the College of Engineering website: <https://advising.engineering.osu.edu/current-students/applying-your-major>

Technical and Other Electives

Please contact an MAE Undergraduate Academic Advisor for information about Technical Elective options.

General Education Requirement

General Education Launch Seminar

1 hr

Foundations: Writing and Information Literacy

3 hr

Foundations: Mathematical & Quantitative Reasoning/Data Analysis

Fulfilled by MATH 1151 Degree Requirement

0-5 hr

Foundations: Literary, Visual and Performing Arts

3 hr

Foundations: Historical & Cultural Studies

3 hr

Foundations: Natural Science

Fulfilled by PHYSICS 1250 Degree Requirement

0-5 hr

Foundations: Social & Behavioral Sciences

3 hr

Foundations: Race, Ethnic and Gender Diversity

3 hr

Theme: Citizenship for a Diverse & Just World ^^

4-6 hr

Theme: Student Choice ^^ *

4-6 hr

General Education Reflection

Embedded into Major Capstone Degree Requirement

0 hr

^^ Theme Credit Hours

Themes may completed by (one) 4 credit hour course or (two) 3 credit hour courses. We recommend one 4 credit hour course for degree planning purposes.

* Theme: Student Choice

Student Choice options will be updated on an ongoing basis. For the most up-to-date listing of Theme options, please see the Undergraduate Education website on the New General Education requirements: <https://ugeducation.osu.edu/general-education-information-students>.

Approved general education courses for each category can be found in the following places:

- classes.osu.edu
- [Schedule Planner](#)
- [Search for Classes](#)

(filter by Term, Campus, Class Attribute "General Education – New", and Class Attribute Value "GEN Foundation" or "GEN Theme")



The Graduate School at The Ohio State University specifies that at least 30 total earned hours are required for a Master's Degree. Please complete the information below and list the courses you plan to use to fulfill your degree requirements.

- The requirements below are only minimums. Your Faculty Advisor can require additional coursework beyond the minimum.
- Courses counted toward the coursework requirements must be letter graded (A-E). Students must earn a grade of C or higher for any courses completed after Autumn semester 2017.
- Designate your math course with an 'M' in the Special Designations column.
- In order to count toward your degree, courses taken outside of nuclear engineering, mechanical engineering, Math or Statistics must be approved by your advisor and the Graduate Studies Committee via a graduate program petition.

Name: _____ Name.#: _____

Advisor Name.#: _____

Combined Degree Double Counting

- ☐ Students may double count up to 9 hours of technical elective coursework from their UG program for either the thesis or non-thesis path*.

Thesis Coursework Requirements

- ☐ 21 hours graduate-level courses
- ☐ Core Courses (C)
- ☐ 6 hours NE 5000+ courses beyond the core courses
- ☐ 3 hours Math 4000+, Stats 5000+ or program approved Math Equivalency courses (not Math 4504)
- ☐ 9 hours of NE 8998 with advisor
- ☐ NE 6881 every semester

Non-Thesis Coursework Requirements

- ☐ 27 hours graduate-level courses
- ☐ Core Courses (C)
- ☐ 12 hours NE 5000+ courses beyond the core courses
- ☐ 3 hours Math 4000+, Stats 5000+ or program approved Math Equivalency courses (not Math 4504)
- ☐ 3 hours of NE 8998 with advisor
- ☐ NE 6881 every semester

Completion Term	Subject, Course Number and Title	Special Designations	Credit Hours
	(C) NE 5001: Interaction of Radiation with Matter		3
	(C) NE 5002: Reactor Physics		3
	(C) NE 5003: Nuclear Systems and Analysis		3
	(C) NE 5004: Material in Nuclear Systems		3
N/A	NE 6881 – Nuclear Engineering Graduate Seminar		
N/A	Estimated Research Hours Upon Degree Completion		
Total Estimated Credit Hours Upon Degree Completion			

Coursework Requirement Notes:

*Combined Degree courses must be 5000+ or higher, meet the course requirements for the graduate degree being pursued, must be taken upon enrolling in the combined degree program, and must not be a capstone course.

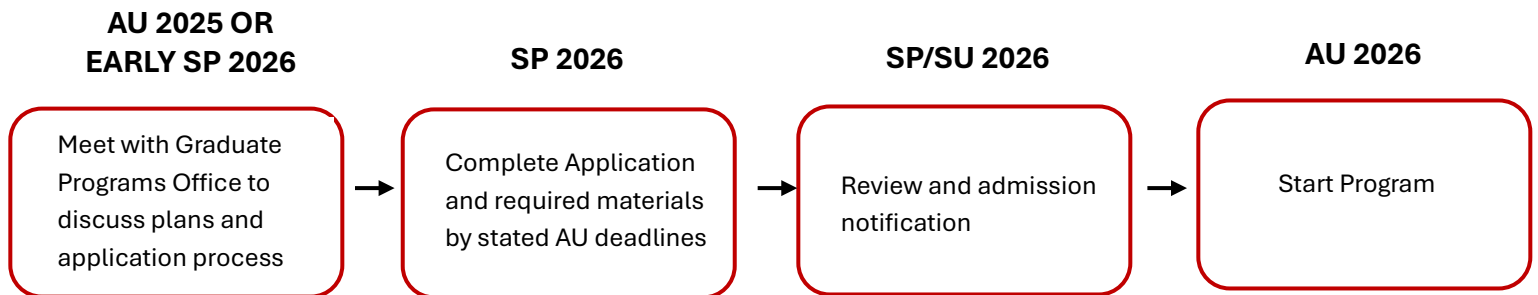
MAE Combined Degree - AE BS.NE MS Program Proposal Additional Notes

Assessment:

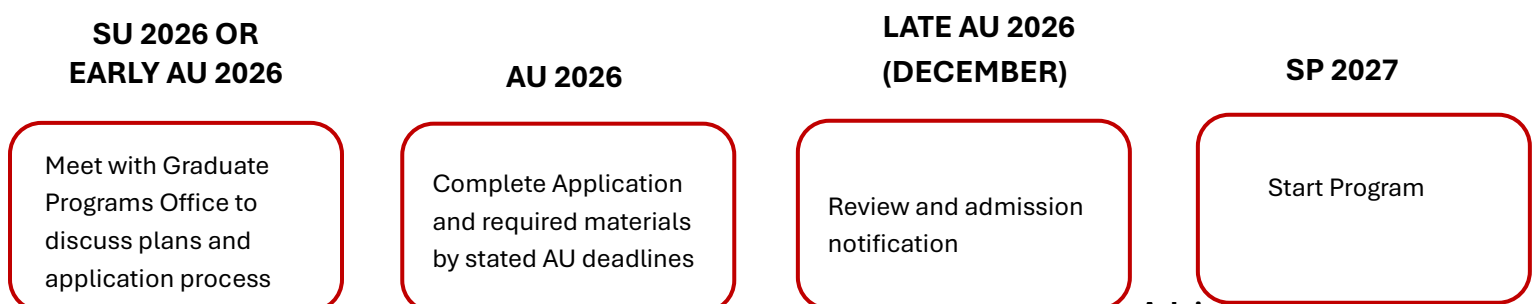
- **Assessment Plan:** We assess this program as part of our overall MS programs.
- **Assessment Metric:** Student complete self-evaluations each year. We use those self-evaluations to monitor their progress and assess our programs.

Combined Degree Application Timeline

- Students are strongly encouraged to discuss their graduate studies plan with the Graduate Programs Office prior to applying to the program. These topics will be discussed during that meeting admission requirements, tuition/fees, time to degree, etc., and students can ask their questions.
- Below is the application timeline for students applying for an AU semester (using AU 2026 as an example):



- Below is the application timeline for students applying for a SP semester (using SP 2027 as an example):



Advising Plans:

MAE Combined Degree - AE BS.NE MS Program Proposal Additional Notes

Finding an Advisor

- MAE does not assign faculty advisors. The advisor-advisee relationship is one that is mutually agreed upon by the faculty member and student.
 - **MS – Thesis Path:** MAE does not assign research projects. Students are encouraged to attend research events to learn about opportunities and reach out to faculty of interest.
 - **MS – Experiential Path:** Students are encouraged to connect with faculty different ways depending on their experiential project.
 - **GRAD Design Studio/Project Teams:** Students should confirm with the faculty member teaching/advising the team that they will be their advisor. Faculty may have recommendations for other faculty members depending on the project.
 - **Engineering Experience** (small research project): MAE does not assign research projects. Students are encouraged to attend research events to learn about opportunities and reach out to faculty of interest.
 - **Internship:** Students should reach out to faculty of interest for advising. This could be a faculty member they had in class, someone that has a working relationship with the internship company, etc.

Additional MS Nuclear Curriculum Information:

- Additional Context for “*Your Faculty Advisor can require additional coursework beyond the minimum.*” note on the curriculum guide:
 - A faculty member may require their student(s) to complete additional coursework. A few of the typical reasons for additional coursework include:
 - A skill/technical knowledge needed for their research
 - A student coming from an untraditional background, so more foundation is needed
 - Students are strongly encouraged to discuss their academic plan with their research advisor to determine if additional coursework is needed prior to agreeing to working with them on research.