Mechanical Engineering MS – Modeling and Simulation in Mechanical Engineering
Curriculum Approval and Warrant Request Form *(for students beginning program Fall 2025- Spring 2026)*

Form instructions: Form is a fillable PDF. Type form, obtain advisor digital signature, email to Sara Hladilek.
Submit completed form during final term of enrollment.

Student Name: _____ 10-digit Campus ID: _____

Advisor: _____ Admit Term: _____

Use preferred name on warrant? ☐ Yes *(name on warrant will be the preferred name you entered into your MyUW)*
☐ No *(name on warrant will be the legal name from your student record)*

*Degree Requirements include 30 credits minimum with at least 24 credits formal coursework, 15 formal ME credits taken at UW-Madison, and 15 credits satisfying the Graduate School 50% Minimum Coursework Requirement. Review the ME Grad Handbook for additional information. If the course was taken prior to entering this program, type * after the term & year taken.* ***Enter "PI" in the grade column for any coursework that is currently 'in progress.'***

Example of how to complete form tables:

Course Number	Course Title	Term & Year Taken	Grade	50%	ME Formal Credits	Course Credits
EMA 521	*Aerodynamics*	*Spring 2026*	*A*	*-*	*-*	*3*
ME 964	*Adv Topics in ME: Nonlinear Elasticity*	*Fall 2026*	*IP*	*3*	*3*	*3*

1.	***ME 903 Graduate Seminar*** *(2 terms required)*			
Term & Year 1:	Grade 1:		Term & Year 2:	Grade 2:

2.	***Required Core Courses*** *(15 credits, 5 courses required) (all courses in this section are formal courses)*	***Term & Year Taken***	***Grade***	***50%***	***ME Formal Credits***	***Course Credits***
ME 440	Intermediate Vibrations					
ME 441	Kinematics, Dynamics, and Control of Robotic Manipulators *(50%)*					
ME 451	Kinematic and Dynamics of Machine Systems					
ME 459	Computing Concepts for Apps in Mechanical Engineering *(50%)*					
ME 460	Applied Thermal/Structural Finite Element Analysis *(50%)*					
ME 468	Computer Modeling and Simulation of Autonomous Vehicles and Robots *(50%)*					
ME 516	Finite Elements for Biological and Other Soft Materials (50%)					
ME 531	Digital Design and Manufacturing *(50%)*					
ME 532	Matrix Methods in Machine Learning *(50%)*					
ME 535	Computer-Aided Geometric Design *(50%)*					
ME 539	Introduction to Artificial Neural Networks					
ME 548	Introduction to Design Optimization *(50%)*					
ME 563	Intermediate Fluid Dynamics *(50%)*					

ME 564	Heat Transfer *(50%)*					
ME 573	Computational Fluids Dynamics *(50%)*					
ME 601*****	*******Applied & Computational Math w/Engr Apps (50%)* ***(*only this topic)***					
ME 748	Optimum Design of Mechanical Elements and Systems *(50%)*					
ME 751	Advanced Computational Dynamics *(50%)*					
ME 759	High Performance Computing for Apps in Engineering *(50%)*					
ME 764	Advanced Heat Transfer I – Conduction *(50%)*					
ME 964*****	*******Sci Computing for Apps in Eng (50%)* ***(*only this topic)***					
EMA 521	Aerodynamics					
EMA 522	Aerodynamics Lab *(50%)*					
EMA 605	Introduction to Finite Elements *(50%)*					
EMA 705	Advanced Topics in Finite Elements *(50%)*					
COMP SCI 412	Introduction to Numerical Methods					
COMP SCI 513	Numerical Linear Algebra *(50%)*					
COMP SCI 514	Numerical Analysis *(50%)*					
COMP SCI 524	Introduction to Optimization					

3. ***Additional FORMAL Courses*** *(9 credits required; place * after course number if transfer course)*

Course Number	**Course Title**	***Term & Year Taken***	**Grade**	**50%**	***ME Formal Credits***	**Course Credits**

4. ***All Additional Courses not listed above to be used in degree*** *(6 credits required; Max. 3 credits of Seminar courses permitted, but not required; Max. 3 credits of internship/co-op (such as ME 702) permitted, but not required; Independent Study permitted, but not required; place * after course number if transfer course)*

Course Number	**Course Title**	***Term & Year Taken***	**Grade**	**50%**	***ME Formal Credits***	**Course Credits**

Totals:	0	0	0

Faculty Advisor Digital Signature & Date: _____

It is the student's responsibility to obtain the faculty advisor's signature prior to submitting form to Sara Hladilek for processing.