Mechanical Engineering MS – Modeling and Simulation in M. E.
Curriculum Approval and Warrant Request Form *(for students beginning program Fall 2022 and after)*
Form instructions: *Form is fillable PDF – type form, obtain advisor digital signature, email to Sara Hladilek*

Student Name: _____   Campus ID: _____

WISC Email: _____   Advisor: _____

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%	Credits
ME 567	Solar Energy Technology	Spring 2023	A		3
ME 964	Adv Topics in ME: Nonlinear Elasticity	Fall 2023	IP	3	3

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1. **ME 903 Graduate Seminar** *(2 terms required)*

Term & Year 1:	Grade 1:	Term & Year 2:	Grade 2:

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2. **Required Core Courses** *(18 credits, 6 courses required)*

Course	Course Title	Term & Year Taken	Grade	50%	Credits
ME 440	Intermediate Vibrations				
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 531	Digital Design and Manufacturing *(50%)*				
ME 532	Matrix Methods in Machine Learning *(50%)*				
ME 535	Computer-Aided Geometric Design *(50%)*				
ME 548	Introduction to Design Optimization *(50%)*				
ME 558	Introduction to Computational Geometry *(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 603	Topics: Finite Element Methods for Biomechanics				
ME 739	Advanced Robotics *(50%)*				
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%)*				

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3. **Additional FORMAL Courses** *(6 credits required; place * after course number if transfer course)*

Course Number	Course Title	Term & Year Taken	Grade	50%	Credits

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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; Independent Study permitted, but not required; place * after course number if transfer course)*

Course Number	Course Title	Term & Year Taken	Grade	50%	Credits

	Totals:	

Faculty Advisor Digital Signature & Date: _____