

Table of Curriculum(Undergraduate Program)

Classification	Course No.	Computer Code	Course Name	Lecture; Lab.; Credit (Assignment)	Semester	Note	
Elective Basic	ME106	B7.106	Human and Machine	3:0:3(3)	Fall		
Mandatory major courses	ME200	B7.200	Basic Mechanical Practice	2:3:3(3)	Spring		
	ME205	B7.205	Mechanical Engineering Laboratory	2:3:3(6)	Fall		
	ME340	B7.340	Engineering Design	2:3:3(6)	Fall		
	ME400	B7.400	Capstone Design I	1:6:3(6)	Spring	◎	
Elective major courses	B a s i c	ME211	B7.211	Thermodynamics	3:0:3(6)	Spring	
		ME221	B7.221	Fluid Mechanics	3:0:3(6)	Fall	
		ME231	B7.231	Solid Mechanics	3:1:3(6)	Spring	
		ME251	B7.251	Dynamics	3:0:3(6)	Fall	
		ME307	B7.307	Applied Electronics	2:3:3(6)	Spring	
		ME311	B7.311	Heat Transfer	3:0:3(6)	Spring	
		ME351	B7.351	Mechanical Vibrations	3:0:3(6)	Spring	
		ME360	B7.360	Modeling and Control of Engineering Systems	3:3:4(6)	Fall	
		ME370	B7.370	Understanding of Materials and Processing	3:0:3(6)	Spring	
	A d v a n c e d	ME203	B7.203	Mechatronics system design	2:3:3(6)	Fall	
		ME301	B7.301	Numerical Analysis	3:0:3(6)	Spring	
		ME302	B7.302	Creative Problem Solving	2:3:3(6)	Spring	
		ME305	B7.305	Electronics Laboratory for Mechanical Engineers	2:3:3(6)	Spring, Fall	
		ME312	B7.312	Energy and Environment	3:0:3(6)	Fall	
		ME330	B7.330	Foundation of Stress Analysis	3:0:3(6)	Spring	
		ME341	B7.341	Mechanical Component Design	3:0:3(6)	Fall	
		ME342	B7.342	Mechanism Design	3:0:3(6)	Fall	
		ME371	B7.371	Advanced Materials Engineering and its Application	3:0:3(6)	Fall	
		ME401	B7.401	Capstone Design II	1:6:3(6)	Fall	◎
		ME403	B7.403	Introduction to Naval Architecture and Ocean Engineering	3:0:3(6)	Spring, Summer, Fall, Winter	◎
		ME404	B7.404	Introduction to Simulation of Medical Procedures	3:1:3(6)	Spring	◎
		ME405	B7.405	Design Thinking and Entrepreneurship	2:3:3(6)	Spring, Fall	◎
		ME411	B7.411	Design of Energy Systems	3:0:3(3)	Fall	◎
		ME413	B7.413	Engine Technology	3:0:3(6)	Spring	◎
		ME414	B7.414	Applied superconductivity and Thermal Engineering	3:0:3(6)	Fall	◎
		ME416	B7.416	Vehicle Dynamics	3:0:3(6)	Spring	◎
		ME420	B7.420	Applied Fluid Mechanics	3:0:3(6)	Spring	◎
		ME430	B7.430	Introduction to Reliability in Mechanical Engineering Design	3:0:3(6)	Fall	◎
ME431		B7.431	Introduction to Continuum Mechanics	3:0:3(6)	Fall	◎	
ME432	B7.432	Deformation, Fracture and Strength of Materials	3:0:3(6)	Spring	◎		
ME440	B7.440	Engineering Design via FEM	3:1:3(6)	Spring	◎		

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	ME452	B7.452	Noise Control Engineering	3:0:3(6)	Fall	◎
	ME453	B7.453	Introduction to Robotics Engineering	3:0:3(6)	Fall	◎
	ME460	B7.460	Automatic Control	3:0:3(6)	Fall	◎
	ME461	B7.461	Introduction to Fuel Cell Systems	3:0:3(6)	Spring	◎
	ME471	B7.471	Precision Engineering	3:1:3(6)	Fall	◎
	ME475	B7.475	Mechanical Engineering and Applied Mathematics	3:0:3(6)	Fall	◎
	ME480	B7.480	Introduction to Biomedical Optics	3:0:3(6)	Fall	◎
	ME481	B7.481	Introduction to Electromagnetism & Optics	3:1:3(6)	Spring	◎
	ME484	B7.484	Structure & Function of Human Body	3:0:3(6)	Fall	◎
	ME487	B7.487	Mechanics of cellular movements and mimetics	3:0:3(6)	Spring	◎
	ME488	B7.488	Introduction to biomedical machine technology	3:0:3(6)	Fall	◎
	ME491	B7.491	Special Topics in Mechanical Engineering	3:0:3(6)	Spring, Fall	◎
	ME493	B7.493	Special Topics in Mechanical Engineering I	1:0:1	Summer, Winter	◎
	ME494	B7.494	Special Topics in Mechanical Engineering II	2:0:2	Summer, Winter	◎
Research	ME490	B7.490	Thesis Study	0:6:3	Spring, Fall	
	ME495	B7.495	Individual Study	0:6:1	Spring, Fall	
	ME496	B7.496	Seminar	1:0:1	Spring, Fall	

◎: Course mutually recognized by undergraduate and graduate programs

※Course classification, course title, and mutual recognition of credits may differ according to the effective year of the requirements.

Table of Curriculum (Graduate Program)

Classification	Course No.	Computer Code	Course Name	Lecture; Lab.; Credit (Assignment)	Semester	Note
Elective major courses	ME500	B7.500	Mathematical Methods in Mechanical Engineering	3:0:3(6)	Spring	◎
	ME502	B7.502	Introduction to Finite Element Method	3:0:3(6)	Spring	◎
	ME505	B7.505	Measurement Instrumentation	3:0:3(6)	Fall	◎
	ME510	B7.510	Advanced Fluid Mechanics	3:0:3(6)	Spring	◎
	ME511	B7.511	Advanced Thermodynamics	3:0:3(6)	Spring	◎
	ME512	B7.512	Advanced Heat Transfer	3:0:3(6)	Fall	◎
	ME513	B7.513	Advanced Combustion	3:0:3(6)	Fall	◎
	ME514	B7.514	Multiphase Flow I	3:0:3(6)	Fall	◎
	ME515	B7.515	Cryogenic Engineering	3:0:3(6)	Spring	◎
	ME521	B7.521	Viscous Fluid Flow	3:0:3(6)	Fall	◎
	ME525	B7.525	Turbomachinery	3:0:3(6)	Fall	◎
	ME526	B7.526	Introduction to Nanotech Processing	3:0:3(6)	Fall	◎
	ME530	B7.530	Advanced Mechanics of Solids	3:0:3(6)	Spring	◎
	ME531	B7.531	Numerical Stress Analysis	3:1:3(6)	Fall	◎
	ME533	B7.533	Fracture Mechanics	3:0:3(6)	Fall	◎
	ME534	B7.534	Fatigue Fracture and Strength	3:0:3(6)	Spring	◎
	ME536	B7.536	Mechanics of Plastic Deformation	3:0:3(6)	Fall	◎
	ME537	B7.537	Optional design of Composite Structures	3:0:3(6)	Spring	◎
	ME543	B7.543	Optimal Design	3:1:3(6)	Fall	◎
	ME545	B7.545	Theory of Hydrodynamics Lubrication	3:0:3(6)	Spring	◎
	ME547	B7.547	Knowledge - Based Design System	3:1:3(6)	Fall	◎
	ME549	B7.549	Reliability in Microsystems Packaging	3:1:3(6)	Fall	◎
	ME550	B7.550	Advanced Dynamics	3:0:3(6)	Fall	◎
	ME551	B7.551	Linear Vibration	3:0:3(6)	Spring	◎
	ME552	B7.552	Introduction to Acoustics	3:0:3(6)	Spring	◎
	ME553	B7.553	Robot Dynamics	3:0:3(6)	Spring, Fall	◎
	ME554	B7.554	Future energy-utilization engineering	3:0:3(6)	Spring, Fall	◎
	ME561	B7.561	Linear System Control	3:0:3(6)	Spring	◎
	ME562	B7.562	Digital System Control	3:0:3(6)	Fall	◎
	ME564	B7.564	Artificial Neural Network: Theory and Applications	3:0:3(6)	Spring	◎
	ME567	B7.567	Introduction to Statistical Thermodynamics	3:0:3(6)	Fall	◎
	ME570	B7.570	Advanced Manufacturing Systems	3:0:3(6)	Spring	◎
	ME572	B7.572	Design and Implementation of Nano Actuation System	2:3:3(6)	Spring	◎
	ME574	B7.574	Joining Engineering	3:1:3(6)	Fall	◎
ME576	B7.576	Vehicle Dynamics and Control	3:1:3(6)	Spring	◎	
ME582	B7.582	Introduction to Microfabrication Technology	3:0:3(6)	Spring	◎	
ME583	B7.583	MEMS Design and Experimental Microfabrication	2:3:3(6)	Fall	◎	

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	ME585	B7.585	Mechanics and Control of Human Movement	3:0:3(6)	Spring	⊙
	ME587	B7.587	Optomechatronics	3:0:3(6)	Fall	⊙
	ME589	B7.589	Applied Optics	3:1:3(6)	Spring	⊙
	ME591	B7.591	Random Data: Analysis and Processing	3:1:3(6)	Fall	⊙
	ME592	B7.592	Laser: Principles and Applications	3:0:3(6)	Fall	⊙
	ME600	B7.600	Mechanical System Design Project 1	0:9:3(6)	Spring	
	ME601	B7.601	Mechanical System Design Project 2	0:9:3(6)	Fall	
	ME604	B7.604	Metrology	2:3:3(6)	Spring	
	ME606	B7.606	Creative Knowledge Creation Process and Application	3:0:3(6)	Fall	
	ME607	B7.607	Computational Linear Algebra	3:1:3(6)	Spring	
	ME611	B7.611	Convective Heat Transfer	3:0:3(6)	Spring	
	ME612	B7.612	Transport Phenomena	3:0:3(6)	Spring	
	ME613	B7.613	Computational Fluid Mechanics and Heat Transfer	3:0:3(6)	Fall	
	ME615	B7.615	Nanoscale Heat Transfer	3:0:3(6)	Spring	
	ME616	B7.616	Automobile Technology and Environment	3:0:3(6)	Fall	
	ME617	B7.617	Advanced Vehicle Control Design	3:0:3(6)	Fall	
	ME621	B7.621	Turbulence	3:0:3(6)	Spring	
	ME623	B7.623	Rotating Flow	3:0:3(6)	Fall	
	ME632	B7.632	Theory of Viscoelasticity	3:0:3(6)	Fall	
	ME633	B7.633	Mechanical Behavior of Polymeric and Composite Materials	3:0:3(6)	Fall	
	ME635	B7.635	Plastic Analysis and Design of Structures	3:0:3(6)	Fall	
	ME638	B7.638	Axiomatic Design of Composite Structure	3:0:3(6)	Spring	
	ME642	B7.642	Medical Biomechanics	3:0:3(6)	Fall	
	ME644	B7.644	Tribology	3:0:3(6)	Spring	
	ME647	B7.647	STEP for Electronic Commerce	3:1:3(6)	Spring	
	ME651	B7.651	Rotor Dynamics	3:0:3(6)	Spring	
	ME653	B7.653	Mechanical Signature and System Analysis	3:1:3(6)	Fall	
	ME654	B7.654	Noise Control	3:0:3(6)	Fall	
	ME655	B7.655	Robotics Engineering	3:1:3(6)	Fall	
	ME656	B7.656	Vehicle NVH	3:1:3(6)	Fall	
	ME661	B7.661	Optimal Control	3:0:3(6)	Spring	
	ME662	B7.662	Design of Precision Actuation System	3:0:3(6)	Spring	
	ME674	B7.674	Optical Imaging System Design	3:0:3(6)	Fall	
	ME683	B7.683	Human Robot Interaction: Haptics	3:0:3(6)	Fall	
	ME692	B7.692	Wave Propagation	3:0:3(6)	Spring	
	ME711	B7.711	Radiation Heat Transfer	3:0:3(6)	Spring	
	ME722	B7.722	Computational Turbulence Modeling	3:0:3(6)	Spring	
	ME724	B7.724	Stratified Flow	3:0:3(6)	Fall	

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	ME731	B7.731	Nonlinear Computational Mechanics of Solid	3:0:3(6)	Spring	
	ME732	B7.732	Reliability in Strength Design	3:0:3(6)	Fall	
	ME752	B7.752	Structure-borne Sound	3:0:3(6)	Fall	
	ME761	B7.761	Nonlinear System Control	3:0:3(6)	Spring	
	ME762	B7.762	Adaptive Control System	3:0:3(6)	Spring	
	ME771	B7.771	Analysis and Design of Metal Forming Processes	3:1:3(6)	Fall	
	ME781	B7.781	Molecular Dynamics and Nanomechanics	3:0:3(6)	Spring	
	ME800	B7.800	Special Topics in Mechanical Engineering	3:0:3(6)	Spring, Fall	
	ME801	B7.801	Special topics in Mechanical Engineering I	1:0:1	Summer, Winter	
	ME802	B7.802	Special topics in Mechanical Engineering II	2:0:2	Summer, Winter	
	ME810	B7.810	Special Topics in Thermal & Fluid Engineering	3:0:3(6)	Fall	
	ME830	B7.830	Special Topics in Design Engineering	3:0:3(6)	Fall	
	ME850	B7.850	Special Topics in Dynamics and Control	3:0:3(6)	Spring, Fall	
	ME870	B7.870	Special Topics in Production Engineering	3:0:3(6)	Spring, Fall	
Research	ME960	B7.960	M.S. Thesis		Spring, Fall	
	ME964	B7.964	Individual Research M.S.	0:3:1	Spring, Summer, Fall, Winter	
	ME966	B7.966	Seminar (M.S. Program)	1:0:1	Spring, Fall	
	ME967	B7.967	Individual Research M.S.	0:6:2	Spring, Fall	
	ME980	B7.980	Ph.D. Thesis		Spring, Fall	
	ME985	B7.985	Individual Research Ph.D.	0:3:1	Spring, Summer, Fall, Winter	
	ME986	B7.986	Seminar (Ph.D.)	1:0:1	Spring, Fall	

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