

**PRE/COREQUISITES FOR MECHANICAL & MANUFACTURING ENGINEERING PROGRAM**

	Course	Pre and Co-requisites	MME Website	TSU Catalog
Freshman all Semester	ENGL 1010 – Freshman English I	<b>Pre-requisite:</b> None		
	MATH 1910 - Calculus I	<b>Pre-requisite:</b> MATH 1720 or 1730, or permission of Department Chair		
	CHEM 1110 - General Chemistry I	<b>Pre-requisite:</b> High School Chemistry OR CHEM 1000/1001 and 2 years of high school algebra		
	CHEM 1111 - General Chemistry Lab I	<b>Co-requisite:</b> CHEM 1110		
	ENGR 1020 - Freshman Engr. Seminar	<b>Pre-requisite:</b> None		
	ENGR 1151 - Computer Engr. Graphics	<b>Pre-requisite:</b> None		
	UNIV 1000 - University Orientation	<b>Pre-requisite:</b> None		
Freshman Spring Semester	ENGL 1020 - Freshman English II	<b>Pre-requisite:</b> Grade of "C" or better in ENGL 1010		
	MATH 1920 - Calculus II	<b>Pre-requisite:</b> Grade of "C" or better in MATH 1910		
	PHYS 2110 - General Physics I	<b>Pre-requisite:</b> Grade of "C" or better in MATH 1910; <b>Co-requisite:</b> MATH 1920		
	PHYS 2111 - General Physics Lab I	<b>Co-requisite:</b> PHYS 2110		
	ENGR 2240 – MATLAB Based Programming for Engineers	<b>Pre-requisite:</b> Grade of "C" or better in ENGR 1020 and MATH 1910	Ok	Ok
	COMM 2200-Public Speaking	<b>Pre-requisite:</b> None		
Sophomore Fall Semester	MATH 2110 - Calculus III	<b>Pre-requisite:</b> Grade of "C" or better in MATH 1920		
	HIST 2010 - American History I	<b>Pre-requisite:</b> Grade of "C" or better in ENGL 1020		
	ENGR 2110 - Statics	<b>Pre-requisite:</b> Grade of "C" or better in PHYS 2110	Ok	Ok
	ENGR 2010 - Thermodynamics	<b>Pre-requisite:</b> Grade of "C" or better in PHYS 2110	Ok	Ok
	PHYS 2120 - General Physics II	<b>Pre-requisite:</b> PHYS 2110		
	PHYS 2121 - General Physics Lab II	<b>Co-requisite:</b> PHYS 2120		
Sophomore Spring Semester	MATH 3120 - Applied Mathematics (Ordinary Differential Equation on the Banner)	<b>Pre-requisite:</b> Grade of "C" or better in MATH 1920		
	ENGR 2000 - Circuits I	<b>Pre-requisite:</b> Grade of "C" or better in ENGR 2230 (or ENGR 2240), and PHYS 2120; <b>Corequisite:</b> MATH 3120	Ok	Ok
	ENGR 2001 - Circuits Lab I	<b>Prerequisite(s):</b> ENGR 2230 or ENGR 2240, PHYS 2120, <b>Corequisite(s):</b> ENGR 2000	Ok	Ok
	Humanities Elective	Please check current TSU Undergraduate Catalog		
	ENGR 2120 - Dynamics	<b>Pre-requisite:</b> Grade of "C" or better in ENGR 2110	Ok	Ok
	ENGR 2130 - Mechanics of Materials	<b>Pre-requisite:</b> Grade of "C" or better in ENGR 2110	Ok	Ok
	ENGR 2131 - Mechanics of Materials Lab	<b>Co-requisite:</b> ENGR 2130	Ok	Ok

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Junior Fall Semester	ENGR 3200 - Introduction to Design	<b>Pre-requisite:</b> Grade of "C" or better in ENGR 2010	Ok	Ok
	ENGR 3300 - Materials Science	<b>Pre-requisite:</b> Grade of "C" or better in CHEM 1110 and PHYS 2120	Ok	Ok
	ENGR 3400 - Numerical Analysis	<b>Pre-requisite:</b> Grade of "C" or better in ENGR 2230 or ENGR 2240 and MATH 3120	Ok	Ok
	MEEN 3210 - Mechanism Design	<b>Pre-requisite:</b> Grade of "C" or better in ENGR 2120	Ok	Ok
	MEEN 3511 - Measurements Lab	<b>Pre-requisite:</b> ENGR 2230 (or ENGR 2240), <b>Co-requisite:</b> ENGR 3200	Ok	Ok
	CVEN 3100 - Fluid Mechanics	<b>Pre-requisite:</b> Grade of "C" or better in ENGR 2110; <b>Co-requisite:</b> ENGR 2120	Ok	Ok
	ENGL 2??? – Sophomore English	Please check current TSU Undergraduate Catalog		
Junior Spring Semester	Mathematics/Science	Please check current TSU Undergraduate Catalog		
	MEEN 3100 - Materials Processing	<b>Pre-requisite:</b> Grade of "C" or better in ENGR 3300	Ok	Ok
	MEEN 3220 - Design of Machine Elements	<b>Pre-requisite:</b> Grade of "C" or better in ENGR 2130 and MEEN 3210	Ok	Ok
	MEEN 3250 - Computer Aided Design	<b>Pre-requisite:</b> Grade of "C" or better in ENGR 3200	Ok	Ok
	MEEN 3521- Manufacturing Processes Laboratory	<b>Pre-requisite:</b> Grade of "C" or better in MEEN 3511, <b>Co-requisite:</b> MEEN 3100	Ok	Ok
	Technical Elective	Please check current TSU Undergraduate Catalog		
Senior Fall Semester	HIST 2020 - American History II	<b>Pre-requisite:</b> Grade of "C" or better in ENGL 1020		
	MEEN 4011 - Mechatronics Lab	<b>Pre-requisite:</b> Grade of "C" or better in ENGR 2000, ENGR 2001, MEEN 3511	Ok	Ok
	MEEN 4150 - Heat Transfer	<b>Pre-requisite:</b> Grade of "C" or better in ENGR 2010, CVEN 3100 and ENGR 3400	Ok	Ok
	MEEN 4230 - Machine Design	<b>Pre-requisite:</b> Grade of "C" or better in MEEN 3220 and MEEN 3250	Ok	Ok
	ENGR 4201 - FE Review Lab	<b>Pre-requisite:</b> senior standing	Ok	Ok
	ENGR 4500 - Capstone Design I	<b>Pre-requisite:</b> Grade of "C" or better in ENGR 3200, MEEN 3220, MEEN 3250, <b>Co-requisite:</b> MEEN 4150 (This is MME internal requirement)	Ok	Pre-req: Senior standing, approval of advisor or department chair (Catalog language for all departments)
	ENGR 4900 - Professional Development	<b>Pre-requisite:</b> senior standing	Ok	Ok
	Social Science Elective	Please check current TSU Undergraduate Catalog		
Senior Spring Semester	MEEN 4021 - Thermal/Fluid Systems Lab	<b>Pre-requisite:</b> Grade of "C" or better in MEEN 4150	Ok	Ok
	MEEN 4250 - Design of Thermal Systems	<b>Pre-requisite:</b> Grade of "C" or better in MEEN 4150	Ok	Ok
	ENGR4510- Capstone Design II	<b>Pre-requisite:</b> Grade of "C" or better in ENGR 4500	Ok	Ok
	Design Elective	Please check current TSU Undergraduate Catalog		
	Humanities Elective	Please check current TSU Undergraduate Catalog		
	Social Science Elective	Please check current TSU Undergraduate Catalog		

Last updated: February 21, 2025 – Updated for Sharing: March 4, 2025

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Technical/Design Electives	MEEN 4100 Instrumentation and Automatic Control(s) (Tech Elec)	Prerequisites: MATH 3120, ENGR 2000	Ok	Ok
	MEEN 4120 – Mechanical Metallurgy (Tech Elec)	Prerequisites: ENGR 3300, ENGR 2130	Ok	Ok
	MEEN 4200 Heating and Air Conditioning (Design Elec)	Prerequisite(s): ENGR 2010. ENGR 4150 or consent of instructor/advisor	Ok	Ok
	MEEN 4300 Mechanical Energy Conversion (Tech Elec)	Prerequisites: ENGR 2010, CVEN 3100	Ok	Ok
	MEEN 4400 Manufacturing Engineering (Tech Elec)	Prerequisite: MEEN 3100	Ok	Ok
	MEEN 4600 Fluid Dynamics (Tech Elec)	Prerequisite: CVEN 3100	Ok	Ok
	MEEN 4700 Mechanical Vibration (Tech Elec)	Prerequisites: ENGR 2120 and MATH 3120	Ok	Ok
	MEEN 4800 Advanced Machine Design (Design Elec)	Prerequisite(s): MEEN 4230	Ok	Ok

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