

# Introductory Mechanical Engineering Courses for Students Transferring to MechE in Freshman Spring

Updated May 29, 2025

If the student has taken these in the Freshman Fall semester...						Then take these in the Freshman Spring semester...				...and take these in the Sophomore Fall Semester...	...and take these before graduating.		
530.111 Intro to MechE Design & CAD and 530.115 MechE Freshman Lab I	500.101 What is Engineering or alternate 3-credit "intro to engineering" course <sup>1</sup>	530.123 Intro to Mechanics I	171.101 Physics I and 173.111 Physics I Lab	171.101 Physics I only (no lab) or Physics I AP credit	Gateway Computing <sup>2</sup> OR AP CS credit <sup>3</sup>	530.116 MechE Freshman Lab II	530.124 Intro to Mechanics II	171.101 Physics I and 173.111 Physics I Lab	500.113 Gateway Computing: Python <sup>2</sup>	530.111 Intro to MechE Design & CAD and 530.115 MechE Freshman Lab I	Advanced Programming Course <sup>3</sup>	530.107 Undergrad MechE Seminar I (Fall)	530.108 Undergrad MechE Seminar II (Spring)
✓		✓				✓	✓		✓			✓	✓
✓			✓			✓	Strongly Encouraged		✓			✓	✓
✓				✓		✓	✓		✓			✓	✓
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## Notes

<sup>1</sup>Any student who has not taken 530.111 Intro to MechE Design & CAD must learn SolidWorks and proper engineering drawing techniques on their own. Prof. Steven Marra will provide a training package. Students must also complete the basic manufacturing trainings -Laser Cutter, 3D Printer, and Basic Shop - before taking the course 530.254 Manufacturing Engineering. This training is available through WSE Manufacturing. Visit <https://wsemanufacturing.jhu.edu/submit-training-request/> for info on arranging training.

<sup>2</sup>Students may count either Gateway Computing: Python or Gateway Computing: JAVA toward their degree requirements. If Gateway Computing: JAVA is taken, Mechanical Engineering majors are still expected to be proficient in Python for their mechanical engineering courses. EN.500.133 Bootcamp: Python is recommended to build this proficiency.

<sup>3</sup>Students who scored a "5" on the AP Computer Science exam have the option to take either 1) One of the Gateway Computing courses, in which case their AP CS credits will be forfeited, or 2) A more advanced computing/programming course of at least 3-credits, which may be counted as a technical elective.

## Introductory Mechanical Engineering Courses for Students Transferring to MechE in Sophomore Fall

Updated May 29, 2025

If the student has taken these in the Freshman year...				Then take these in the Sophomore fall semester...			...and take these before graduating.			
500.101 What is Engineering or alternate 3-credit "intro to engineering" course <sup>1</sup>	171.101 Physics I <u>and</u> 173.111 Physics I Lab	171.101 Physics I only (no lab) or Physics I AP credit	Gateway Computing <sup>2</sup> OR AP CS credit <sup>3</sup>	530.111 Intro to MechE Design & CAD <u>and</u> 530.115 MechE Freshman Lab I	171.101 Physics I	173.111 Physics I Lab	500.113 Gateway Computing: Python <sup>2</sup>	Advanced Programming Course <sup>3</sup>	530.107 Undergrad MechE Seminar I	530.108 Undergrad MechE Seminar II
✓	✓			Strongly Encouraged			✓		✓	✓
✓		✓		Strongly Encouraged		✓	✓		✓	✓
✓				Strongly Encouraged	✓	✓	✓		✓	✓
	✓			✓			✓		✓	✓
		✓		✓		✓	✓		✓	✓
✓	✓		✓	Strongly Encouraged				If CS AP credit	✓	✓
✓		✓	✓	Strongly Encouraged		✓		If CS AP credit	✓	✓
✓			✓	Strongly Encouraged	✓	✓		If CS AP credit	✓	✓
	✓		✓	✓				If CS AP credit	✓	✓
		✓	✓	✓		✓		If CS AP credit	✓	✓
				✓	✓	✓	✓		✓	✓

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