

<b>Name:</b>	<b>ID:</b>
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## 2019-2020 Program Advising Guide

### Bachelor of Science in Mechanical Engineering

Guide to notations:

*Taken*, *In progress*, *Advised for next semester*, *Missed/failed*

**Advisor Instructions** – strikethrough, color code or highlight pre/coreq as appropriate to indicate review and update the courses *taken*, *in progress*, *missed/failed* and *advised for next semester*.

**Engineering, Math and Science Course Requirements: (98 hours); add'l gen ed requirements shown below**

- A “c” on a prereq indicates “or concurrent registration” (coreq); See dept webpage for prereq policy.
- Offered – semesters in which the course is offered
- The student must earn a “C” or better in each course to graduate.

1 <sup>st</sup> Semester (Fall)	Pre/coreq	Offered	Hrs
ENGR 1100 – Transition to University Studies			1
ENGR 1211* – Engineering Fundamentals 1	MATH 1316c or MATH 2412c	Fa, Sp	2
MATH 2413* – Calculus 1	MATH 1316 or MATH 2412 or Placement	All	4
CHEM 1409* – College Chemistry for Engineers		Fa	4
2 <sup>nd</sup> Semester (Spring)	Pre/coreq	Offered	Hrs
ENGR 1212* – Engineering Fundamentals 2	(ENGR 1212, PHYS 2425c, MATH 2414c) or (ENGR 1212c, PHYS 2425, MATH 2414c)	Fa, Sp	2
MATH 2414* – Calculus 2	MATH 2413	All	4
PHYS 2425* – University Physics 1	MATH 2413c	All	4
3 <sup>rd</sup> Semester (Fall)	Pre/coreq	Offered	Hrs
ENGR 2321 – Eng. Mechanics: Statics	ENGR 1212, PHYS 2425c, MATH 2413	Fa, Sp	3
ENGR 2322 – Thermodynamics	ENGR 1212, MATH 2414c	Fa, Sp	3
MEEN 2210* – Engineering CAD	ENGR 1212c, MATH 2413c	Fa	2
MATH 3306 – Differential Equations	MATH 2414	Fa, Sp	3
PHYS 2426* – Physics 2	PHYS 2425, MATH 2414c	Fa, Sp	4
4 <sup>th</sup> Semester (Spring)	Pre/coreq	Offered	Hrs
CVEN 3423* – Strength of Materials	ENGR 2321	Sp	4
MEEN 2115* – Engineering CAM	MATH 2413c; MEEN 2210	Sp	1
MEEN 3305 – Fluid Mechanics	PHYS 2425, MATH 2414, ENGR 2322	Sp	3
MEEN 3325 – Advanced Thermodynamics	ENGR 2322, CHEM 1409, MATH 3306c	Sp	3
ENGR 2324 – Eng. Mechanics: Dynamics	ENGR 2321	Sp	3

5 <sup>th</sup> Semester (Fall)	Pre/coreq	Offered	Hrs
MEEN 3345 – Heat Transfer	ENGR 2322, MEEN 3305, MATH 3306	Fa	3
ELEN 2425* – Electrical Circuit Theory	PHYS 2426c, MATH 2414c	Fa, Sp	4
ELEN 3320* – Engineering Analysis Techniques	ENGR 1212, MATH 3306c	Fa	3
MEEN 3335* – Mechanical Vibration	ENGR 2324, MATH 3306, CVEN 3423	Fa	3
6 <sup>th</sup> Semester (Spring)	Pre/coreq	Offered	Hrs
ENGR 3311 – Engineering Math Methods	ENGR 1212, MATH 2413	Sp	3
MEEN/ELEN 4443* – Linear Control System Design	ELEN 2425, ELEN 3320, MATH 3306	Sp	4
MATH 3433* – Calculus 3	MATH 2414	Fa, Sp	4

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7 <sup>th</sup> Semester (Fall)	Pre/coreq	Offered	Hrs
MEEN 4310 – Mechanical Engineering Design 1	MEEN 2210, MEEN 2115, ENGR 2324, CVEN 3423	Fa	3
MEEN 4300 – Renewable Energy Systems and Applications [WI]	MEEN 3325, MEEN 3305, MEEN 3345	Fa	3
MEEN 4205* – Experimental Lab	MEEN 3305, MEEN 3345	Fa	2
ENGR 4259* – Capstone 1	w/in 1 yr of graduating	Fa	2
8 <sup>th</sup> Semester (Spring)	Pre/coreq	Offered	Hrs
MEEN 4320* – Mechanical Engineering Design 2	MEEN 4310, MEEN 3305	Sp	3
MEEN 4420* – Thermal Fluid System Design	ENGR 2322, MEEN 3305, MEEN 3345	Sp	4
MEEN 4425* – Mechatronics	ELEN 2425, MEEN 4310, MEEN 4443	Sp	4
ENGR 4360* – Capstone 2 [WI]	ENGR 4259	Sp	3

\* indicates the class has a lab.

**Additional General Education Requirements (30 hours):**

These may be taken any semester unless otherwise noted; use these to fill in semesters. If gen ed is complete, consider adding a minor to maintain full time status by taking meaningful coursework. See catalog or DegreeWorks for details.

Advisors – ~~strikethrough~~, color code or highlight the general education component as appropriate. You may also update and highlight the following statement if the student has the freedom to select gen ed classes:

Take # of your remaining gen ed courses:

ENGL 1301 (1 <sup>st</sup> sem or prior)	COMM (Speech)	Creative Arts	HIST 1301	GOVT 2305
ENGL 1302 (2 <sup>nd</sup> sem or prior)	Language & Culture	Social/Behavioral	HIST 1302	GOVT 2306

**Additional Advising Notes: (date each note)**

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