

Typical Course of Study for the Bachelor of Science in Mechanical Engineering 2008-2009

**FRESHMAN YEAR**

**Fall Semester** Hours/Week

Course	No.	Course Title	Class	Lab	Rec.	Cr.
EG	1004	Introduction to Engineering & Design	1	3	2	4
MA	1024	Calculus I or	4	0	0	4
MA	1324	Integrated Calculus I	4	0	2	4
CM	1004	General Chemistry	3	2	1	4
EN	1014	Writing & Humanities I (2)	4	0	0	4
SL	1010	Freshman Seminar	1	1	0	0
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**Spring Semester** Hours/Week

Course	No.	Course Title	Class	Lab	Rec.	Cr.
MA	1124	Calculus II or	4	0	0	4
MA	1424	Integrated Calculus II	4	0	2	4
PH	1004	Introductory Physics I	4	1½	1	4
ME	1012	Introduction to Mechanical Engineering	2	0	0	2
ME	1112	Computer Aided Design	1	0	3	2
EN	1204	Writing & Humanities II	4	0	0	4
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**SOPHOMORE YEAR**

**Fall Semester**

Course	No.	Course Title	Class	Lab	Rec.	Cr.
MA	2012	Linear Algebra I (½semester)	4	0	0	2
MA	2132	Ordinary Diff. Equ.( ½semester)	4	0	0	2
PH	2004	Introductory Physics II	4	1½	1	4
MT	2811	Materials Science Lab	½	1½	0	1
MT	2813	Introduction to Materials Science	3	0	0	3
HI	2104	Modern World History	4	0	0	4
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**Spring Semester**

Course	No.	Course Title	Class	Lab	Rec.	Cr.
MA	2112	Multi. Calculus A (½semester)	4	0	0	2
MA	2122	Multi Calculus B (½semester)	4	0	0	2
MA	2212	Data Analysis I (½semester)	4	0	0	2
ME	2211	Statics Lab	0	0	3	1
ME	2213	Statics	3	0	0	3
ME	2313	Thermodynamics	3	0	0	3
		HU/SS Elective (3)	4	0	0	4
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## JUNIOR YEAR

### Fall Semester

Course	No.	Course Title	Class	Lab	Rec.	Cr.
ME	3211	Mechanics of Materials Lab	½	1½	0	1
ME	3213	Mechanics of Materials	3	0	0	3
ME	3511	Measurement Systems Lab	½	1½	0	1
ME	3513	Measurement Systems	3	0	0	3
ME	3223	Dynamics	3	0	0	3
		HU/SS Elective (3)	4	0	0	4
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### Spring Semester

Course	No.	Course Title	Class	Lab	Rec.	Cr.
ME	3233	Machine Design	3	0	0	3
ME	3311	Fluids Lab	½	1½	0	1
ME	3313	Fluids	3	0	0	3
ME	3411	Controls Lab	½	1½	0	1
ME	3413	Controls	3	0	0	3
MG	3002	Project Management	2	0	0	2
		ME Elective (4)	3	0	0	3
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## SENIOR YEAR

### Fall Semester

Course	No.	Course Title	Class	Lab	Rec.	Cr.
ME	4112	Senior Design I	2	0	0	2
ME	4214	Finite Element Design, Modeling & Analysis	3	3	0	4
ME	4311	Heat Transfer Lab	½	1½	0	1
ME	4313	Heat Transfer	3	0	0	3
		ME Elective (4)	3	0	0	3
		Free Elective (5)	3	0	0	3
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### Spring Semester

Course	No.	Course Title	Class	Lab	Rec.	Cr.
ME	4113	Senior Design II	3	0	0	3
		ME Elective (4)	3	0	0	3
		ME Elective(5)	3	0	0	3
		Technical Elective (4)	3	0	0	3
		HU/SS Elective (3)	4	0	0	4
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Total credits required for graduation 128

1. Students who are placed by examination or by an adviser into MA 0902, MA 0912 or MA 0922 must defer registration for MA 1024 or 1324.
2. Students who are placed by examination or by an adviser into EN 1080 or EN 1090 must subsequently register for EN 1034, rather than EN 1014.

3. Approved HU/SS electives are courses with the following prefixes: AH, AN, EC, EN, HI, MU, PL and PS. Two courses must be from Level II. Elective courses in different disciplines and one from Level III Advanced Elective courses.
4. A total of 15 credits are required for ME and Technical electives. Mix of 3 & 4 credits are allowed. Out of the 15 credits, 12 or more must be in ME.
5. A total of 3 credits in Free electives are allowed. Free electives are non-engineering, science based courses that need to have one of the following prefixes: AH, AN, EC, EN, HI, MU, PL, PO, PS, MA, PH, CH, or BMS. The approval of the ME Undergraduate Advisor is required.

Typical Course of Study for the Bachelor of Science in Mechanical Engineering with Concentration in Aerospace Engineering **2008-2009**

**FRESHMAN YEAR**

**Fall Semester** Hours/Week

Course	No.	Course Title	Class	Lab	Rec.	Cr.
EG	1004	Introduction to Engineering & Design	1	3	2	4
MA	1024	Calculus I or	4	0	0	4
MA	1324	Integrated Calculus I	4	0	2	4
CM	1004	General Chemistry	3	2	1	4
EN	1014	Writing & Humanities I (2)	4	0	0	4
SL	1010	Freshman Seminar	1	1	0	0
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**Spring Semester** Hours/Week

Course	No.	Course Title	Class	Lab	Rec.	Cr.
MA	1124	Calculus II or	4	0	0	4
MA	1424	Integrated Calculus II	4	0	2	4
PH	1004	Introductory Physics I	4	1½	1	4
ME	1012	Introduction to Mechanical Engineering	2	0	0	2
ME	1112	Computer Aided Design	1	0	3	2
EN	1204	Writing & Humanities II	4	0	0	4
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**SOPHOMORE YEAR**

**Fall Semester**

Course	No.	Course Title	Class	Lab	Rec.	Cr.
MA	2012	Linear Algebra I (½semester)	4	0	0	2
MA	2132	Ordinary Diff. Equ.(½semester)	4	0	0	2
PH	2004	Introductory Physics II	4	1½	1	4
MT	2811	Materials Science Lab	½	1½	0	1
MT	2813	Introduction to Materials Science	3	0	0	3
HI	2104	Modern World History	4	0	0	4
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**Spring Semester**

Course	No.	Course Title	Class	Lab	Rec.	Cr.
MA	2112	Multi. Calculus A (½semester)	4	0	0	2
MA	2122	Multi Calculus B (½semester)	4	0	0	2
MA	2212	Data Analysis I (½semester)	4	0	0	2
ME	2211	Statics Lab	0	0	3	1
ME	2213	Statics	3	0	0	3
ME	2313	Thermodynamics	3	0	0	3
		HU/SS Elective (3)	4	0	0	4
						17

**JUNIOR YEAR****Fall Semester**

Course	No.	Course Title	Class	Lab	Rec.	Cr.
ME	3211	Mechanics of Materials Lab	½	1½	0	1
ME	3213	Mechanics of Materials	3	0	0	3
ME	3511	Measurement Systems Lab	½	1½	0	1
ME	3513	Measurement Systems	3	0	0	3
ME	3223	Dynamics	3	0	0	3
		HU/SS Elective (3)	4	0	0	4
						15

**Spring Semester**

Course	No.	Course Title	Class	Lab	Rec.	Cr.
ME	3233	Machine Design	3	0	0	3
ME	3311	Fluids Lab	½	1½	0	1
ME	3313	Fluids	3	0	0	3
ME	3411	Controls Lab	½	1½	0	1
ME	3413	Controls	3	0	0	3
MG	3002	Project Management	2	0	0	2
		Free Elective (5)	3	0	0	3
						16

**SENIOR YEAR****Fall Semester**

Course	No.	Course Title	Class	Lab	Rec.	Cr.
ME	4112	Senior Design I	2	0	0	2
ME	4214	Finite Element Design, Modeling & Analysis	3	3	0	4
ME	4311	Heat Transfer Lab	½	1½	0	1
ME	4313	Heat Transfer	3	0	0	3
AE	4603	Compressible Flow	3	0	0	3
AE	4653	Aircraft Flight Mechanics	3	0	0	3
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**Spring Semester**

Course	No.	Course Title	Class	Lab	Rec.	Cr.
ME	4113	Senior Design II	3	0	0	3
AE	4613	Aerodynamics	3	0	0	3
AE	4633	Aerospace Propulsion	3	0	0	3
		ME Elective (4)	3	0	0	3
		HU/SS Elective (3)	4	0	0	4
						16

Total credits required for graduation: 128

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3. Approved HU/SS electives are courses with the following prefixes: AH, AN, EC, EN, HI, MU, PL and PS. Two courses must be from Level II Elective courses in different disciplines and one from Level III Advanced Elective courses.
4. A total of 3 credits are required for ME electives.
5. A total of 3 credits in Free electives are allowed. Free electives are non-engineering, science based courses that need to have one of the following prefixes: AH, AN, EC, EN, HI, MU, PL, PO, PS, MA, PH, CH, or BMS. The approval of the ME Undergraduate Advisor is required.