

MECHANICAL ENGINEERING SAMPLE CURRICULUM
University of Washington

June 2008

FRESHMAN – AUTUMN QUARTER	FRESHMAN – WINTER QUARTER	FRESHMAN – SPRING QUARTER
MATH 124 – Calculus I	MATH 125 – Calculus II	MATH 126 – Calculus III
CHEM 142 – Chem & Lab I	CHEM 152 – Chem & Lab II	PHYS 121 – Mechan & Lab
ENGL COMP	VLPA/I&S	VLPA/I&S or ME 123
QUARTER TOTAL	QUARTER TOTAL	QUARTER TOTAL

SOPHOMORE – AUTUMN QUARTER	SOPHOMORE – WINTER QUARTER	SOPHOMORE – SPRING QUARTER
ME 123 – Intro to Visualization & CAD or VLPA/I&S	MATH 308 – Matrix Algebra	AMATH 301* – Beg Scient. Comp
PHYS 122 – Electro & Lab	PHYS 123 – Waves & Lab	ME 230 – Dynamics
AA 210 - Statics	CEE 220 – Mech of Materials	MATH 324 – Multivar Calculus
MATH 307 – Differential Equations	VLPA/I&S	TC 231
QUARTER TOTAL	QUARTER TOTAL	QUARTER TOTAL

JUNIOR – AUTUMN QUARTER	JUNIOR – WINTER QUARTER	JUNIOR – SPRING QUARTER
ME 323 – Thermodynamics	ME 333 – Intro to Fluid Mechanics	***ME Option – Senior Elective
MSE 170 – Materials Science	ME 354 – Behavior of Engr Matls	ME 355 or 356
EE 215 – Fund of EE	ME 373 – Intro to Sys Dynamics	ME 374 – Sys Dynamics
VLPA/I&S		IND E 315 – Prob & Stats (or MATH 390)
QUARTER TOTAL	QUARTER TOTAL	QUARTER TOTAL

SENIOR – AUTUMN QUARTER	SENIOR – WINTER QUARTER	SENIOR – SPRING QUARTER
***ME Option – Senior Elective	TC 333 – Adv Tech Writing (or Eng 182/281/381)	ME 495 – Mech Engr Design
ME 331 – Intro to Heat Transfer	ME 355 or ME 356	***ME Option – Senior Elective
ME 395 – Intro to Mech Design	***ME Option – Senior Elective	VLPA/I&S
VLPA/I&S	***ME Option – Senior Elective	
QUARTER TOTAL	QUARTER TOTAL	QUARTER TOTAL

*AMATH 301 is a prerequisite for ME 33 and ME 373

***See the Mechanical Engineering Undergraduate Advising Guide for a list of courses acceptable as ME Option Electives.

For more information contact: Engineering Advising, 301 Loew Hall, Box 352180, Seattle, Washington 98195-2180
phone (206) 543-1770 – email (engradv@enr.washington.edu)
OR
Mechanical Engineering, 143 ME Bldg, Box 352600, Seattle, Washington 98195-2600
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MECHANICAL ENGINEERING GRADUATION REQUIREMENTS

University of Washington

The graduation requirements shown below are subject to change.

June 2008

See end for Early Admission Requirements.

◆ Upper-Division Admission Requirements.

Mathematics[24 Credits]

- ◆ MATH 124 [5cr] Calculus with Analytic Geometry I
- ◆ MATH 125 [5cr] Calculus with Analytic Geometry II
- ◆ MATH 126 [5cr] Calculus with Analytic Geometry III
- MATH 307 [3cr] Intro to Diff Equations [pr: MATH 125]
- OR AMATH 351
- MATH 308 [3cr] Matrix Algebra [pr: MATH 126]
- OR AMATH 352

One course from the following:

- MATH 309, MATH 324, AMATH 353 [3cr]

Sciences[25 Credits]

- ◆ CHEM 142 [5cr] General Chemistry with lab
- ◆ CHEM 152 [5cr] General Chemistry with lab [pr: CHEM 142]
- ◆ PHYS 121 [5cr] Mechanics with lab [pr: MATH 124]
- ◆ PHYS 122 [5cr] Electro/Oscillatory with lab [pr: MATH 125]
- PHYS 123 [5cr] Waves with lab [pr: MATH 126]

Written and Oral Communications.....[12 Credits]

- ◆ ENGL COMP [5cr] English Composition
- ◆ T C 231 [3cr] Intro to Tech. Writing [pr: ENGL COMP]
- T C 333 or [4cr] Adv. Tech Writing [pr: TC 231]
- Eng 182, 281, 381 [5cr]

Visual, Literary & Performing Arts

Individuals & Societies [VLPA/I&S].....[24 Credits]

Minimum 10 credits in VLPA (formerly Humanities) required.
 Minimum 10 credits in I&S (formerly Social Sciences) required.
 Additional 4 credits from either VLPA or I&S.

Engineering Fundamentals[31 Credits]

- ME 123 [4cr] Intro to Visualization and CAD
- AMATH 301 [4cr] Beg. Scientific Computing [pr: MATH 126]
- MSE 170 [4cr] Fund of Material Science [pr: CHEM 152]
- ◆ AA 210 [4cr] Statics [pr: PHYS 121 & MATH 126]
- E E 215 [4cr] Fund of EE [pr: PHYS 122 & MATH 126]
- ◆ CEE 220 [4cr] Mechanics of Materials [pr: AA 210]
- ◆ ME 230 [4cr] Kinematics & Dynamics [pr: AA 210]
- IND E 315 or [3cr] Prob & Stats for Engrs [pr: MATH 307]
- MATH/STAT 390 [4cr]

Mechanical Engr. Core Courses[45 Credits]

- ME 323 [5cr] Engineering Thermodynamics
[pr: MATH 126, CHEM 142, PHYS 121]
- ME 331 [4cr] Intro to Heat Transfer
[pr: ME 333 or CEE 342]
- ME 333 [5cr] Intro to Fluid Mechanics
[pr: ME 323 or CHEM E 260 & MATH 307 or AMATH 351, AMATH 301]
- ME 354 [5cr] Behavior of Engr Material Lab
[pr: MSE 170 & CEE 220]
- ME 355 [4cr] Manufacturing Processes [pr: ME 354]
- ME 356 [4cr] Machine Design Analysis [pr: ME 354]
- ME 373 [5cr] Intro to System Dynamics
[pr: EE 215, ME 230, MATH 307/308 or AMATH 351/352, AMATH 301]
- ME 374 [5cr] Sys Dynamic Analysis/Design
[pr: ME 373]
- ME 395 [4cr] Intro to Mechanical Design
[pr: ME 123, ME 323, ME 373, IND E 315/MATH 390]
- ME 495 [4cr] Mech Engr Design [pr: ME 395]

Mechanical Option Courses[19 Credits]

See Mechanical Engineering Advising Guide for a list of courses.

Total credits required for graduation [180]

Early Admission Requirements

1. Early Admission is an option for **AUTUMN QUARTER ONLY**.
2. Student **MUST** be enrolled at UW.
3. Math 124, 125 & 126; or equivalent.
4. 10 credits of physical sciences courses plus the accompanying lab at the level of PHYS 121, 122, 123; CHEM 142, 152.
5. 5 credits of English Composition.