

# **Bachelor of Science in Engineering MECHANICAL ENGINEERING**

2008-2009 Undergraduate Catalog

# **Degree Progression Plan**

Freshman Year							
1 <sup>st</sup> term				2 <sup>nd</sup> term			
ME 180	Computer Aided Design	2		MAT 137	Calculus II (FNRQ)	4	
EGR 186	Introduction to Engineering Design	3		ENG 105	Critical Reading and Writing (FNRQ)	4	
MAT 136	Calculus I (SCI: SAS)	4		CHM 151	General Chemistry I (SCI: SAS)	4	
PHY 161	University Physics I and Lab (SCI: LAB)	3		CHM 151L	General Chemistry I Lab	1	
PHY 161L	University Physics I Lab (SCI: LAB)	1		PHY 262	University Physics II (SCI: SAS)	3	
LS	Liberal Studies	3					
FYE 101	First Year Experience	1					
Total units					Total units	16	5

Sophomore Year							
3 <sup>rd</sup> term			4 <sup>th</sup> term				
EGR 286	Engineering Design: Process	3	ME 252	Applied Mechanics: Dynamics	3		
EE 188	Electrical Engineering I	3	CENE 253	Mechanics of Materials	3		
EE 188L	Electrical Engineering I Lab	1	CENE 253L	Mechanics of Materials lab	1		
CENE 251	Applied Mechanics: Statics	3	ME 291	Thermodynamics	3		
MAT 238	Calculus III	4	MAT 239	Differential Equations	3		
LS/DIV	Liberal Studies/Diversity *	3	LS	Liberal Studies	3		
Total units   17 Total un					16		

Junior Year							
5 <sup>th</sup> term			6 <sup>th</sup> term				
ME 340	Materials Science	3	ME 386	Machine Design	3		
ME 395	Fluid Mechanics	3	ME 392	Thermodynamics II	3		
CENE 225	Engineering Analysis	3	MAT 362	Numerical Methods	3		
CS 122	Programming for Engineering & Science (SCI: SAS)	3	ENG 302W or ENG 305W	Technical Writing or Writing in Disciplinary Communities	3		
LS	Liberal Studies	3	DE	Depth Elective **	3		
	Total units	15		Total units	15		

Senior Year								
7 <sup>th</sup> term			8 <sup>th</sup> term					
ME 476C	Mechanical Engineering Design I	3	ME 486C	Mechanical Engineering Design II	3			
ME 495	Thermal Laboratory	3	DE	Depth Elective **	3			
ME 350	Heat Transfer	3	BE	Breadth Elective ***	3			
DE	Depth Elective **	3	BE	Breadth Elective ***	3			
BE	Breadth Elective ***	3	LS	Liberal Studies	3			
LS/DIV	Liberal Studies/Diversity*	3						
	Total units	18		Total units	15	5		

## Liberal Studies Distribution blocks

AHI (6 units)	SPW (6 units)	CU (6 units)	Science (7 units)	Additional 3 units
			PHY 161 & 161L (3)	to reach 35 total
			PHY 262 (3)	CHM 151 (4)

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#### **PROGRAM INFORMATION**

A minimum of 128 units are required for this degree.

You can not have more than two grades of D in your engineering and computer science courses.

\* Take a Liberal Studies course that also satisfies a Diversity requirement.

\*\*Depth electives include 9 units from the following lists or 300-400 level engineering courses with approval from your advisor. It is encouraged that you select course from only one of the two areas.

- Mechanical design: EE 458, ME 381, ME 454, ME 455, ME 467 or ME 484
- Fluid & thermal sciences: ME 441, ME 442, ME 444, ME 451 or ME 454

\*\*\* Breadth electives include 9 additional units of upper-division courses in engineering, natural sciences, business or mathematics as approved by your academic advisor.

### **GENERAL INFORMATION**

- This degree progression plan is to be used in conjunction with the academic catalog and degree progress report.
- Students should see an academic advisor regularly to confirm their academic progress.
- Students must see an academic advisor before enrollment for the 7<sup>th</sup> term in preparation for graduation.
- Many courses have pre-requisites. Please check the academic catalog for pre-requisite and placement information.
- Submit graduation application during 7<sup>th</sup> term.
- Honors students complete different requirements to meet NAU's liberal studies program. Students should consult an Honors Program advisor for complete information on fulfilling Honors Liberal Studies requirements.
- All students are required to complete at least 120 total units which includes:
  - 35 units of liberal studies courses: http://www4.nau.edu/aio/Articulation/LScourselist.htm
  - 6 units of diversity courses (3 units in Global & 3 units in Ethnic). The diversity requirement may be fulfilled in any part of the program of study: http://www4.nau.edu/aio/Articulation/DiversityCourseList.htm
  - 30 units of upper division courses (300-400 level), 18 of these units must be taken at NAU
- English placement: <a href="http://www.nau.edu/comp/placement.html">http://www.nau.edu/comp/placement.html</a>
- Math placement: http://www.cens.nau.edu/Academic/Math/studentInformation/Placement/Placement.shtml

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