

Academic Programs – Mechanical Engineering Program

The table of courses in the Mechanical Engineering Core should be changed to the following (highlighted in red). The change consists of:

- 1) Creation of a New Common Course on Vibration Synthesis & Analysis (EGN 4323).
- 2) Termination of Existing Courses: EML 4220 (Vibration Synthesis & Analysis).

<i>Mechanical Engineering Core</i>		
Electro-Mechanical Devices	EGM 4045	3
Fundamentals of Engineering	EGN 1002	3
Statics	EGN 3311	3
Dynamics	EGN 3321	3
Strength of Materials	EGN 3331	3
Engineering Thermodynamics	EGN 3343	3
Engineering Materials 1	EGN 3365	3
Experimental Methodology	EML 3523C	3
Fluid Mechanics	EML 3701	3
Applied Thermal Fluid Engineering	EML 4127	3
Heat Transfer	EML 4142	3
Vibration Synthesis and Analysis	EGN 4323	3
Machine Design 2	EML 4262	3
Finite Element Analysis for Engineering Design	EGM 4350	3
Machine Design 1	EML 4500	3
Engineering Design	EML 4521C	3
Design Project	EML 4551	3
Dynamic Systems	EGN 4432	3
Mechanical Engineering Lab	EML 4730L	3

The sample four-year program of study for BSOE should be changed to the following (the change is highlighted in red).

Sample Four-Year Program of Study for Bachelor of Science in Mechanical Engineering

First Year, Fall (14 credits)		
College Writing 1*	ENC 1101	3
Calculus for Engineers 1	MAC 2281	4
Engineering Chemistry or General Chemistry 1	EGN 2095 or CHM 2045	3
Engineering Chemistry Lab or General Chemistry 1 Lab	EGN 2095L or CHM 2045L	1
Fundamentals of Engineering	EGN 1002	3

First Year, Spring (14 credits)		
College Writing 2* or equivalent	ENC 1102	3
Calculus for Engineers 2	MAC 2282	4
Engineering Graphics	EGN 1111C	3
Physics for Engineers 1	PHY 2043	3
General Physics 1 Lab	PHY 2048L	1

Second Year, Fall (14 credits)		
Statics	EGN 3311	3
Calculus with Analytic Geometry 3	MAC 2313	4
Introduction to Philosophy (GRW) or equiv.**	PHI 2010	3
Physics for Engineers 2	PHY 2044	3
General Physics 2 Lab	PHY 2049L	1

Second Year, Spring (15 credits)		
Strength of Materials	EGN 3331	3
Engineering Thermodynamics	EGN 3343	3
Computer Applications in Engineering 1	EGN 2213	3
Engineering Mathematics 1	MAP 3305	3
Foundations of Society and Human Behavior course**		3

Third Year, Fall (15 credits)		
Electro-Mechanical Devices	EGM 4045	3
Dynamics	EGN 3321	3
Fluid Mechanics	EML 3701	3
Computer Applications in Mechanical	EML 4534	3

Engineering 2		
History of Civilization 1 (GRW) or equiv**	WOH 2012	3

Third Year, Spring (15 credits)		
Dynamic Systems	EGN 4432	3
Heat Transfer	EML 4142	3
Finite Element Analysis for Engineering Design	EGM 4350	3
Foundations of Creative Expression course**		3
Foundations of Society and Human Behavior course**		3

Third Year, Summer (12 credits)		
Probability and Statistics for Engineers	STA 4032	3
Vibration Synthesis and Analysis	EGN 4323	3
Technical Elective		3
Foundations of Creative Expression course**		3

Fourth Year, Fall (15 credits)		
Engineering Materials 1	EGN 3365	3
Experimental Methodology	EML 3523C	3
Applied Thermal Fluid Engineering	EML 4127	3
Machine Design 1	EML 4500	3
Engineering Design	EML 4521C	3

Fourth Year, Spring (14 credits)		
Machine Design 2	EML 4262	3
Design Project	EML 4551	3
Mechanical Engineering Lab	EML 4730L	3
Technical Electives		5
Total		128

* Course meets Writing Across Curriculum (Gordon Rule) requirements.

** Courses may be selected from the appropriate portion of the [Intellectual Foundations Program](#).

Course Descriptions – Mechanical Engineering Program

Remove the following course as it is no longer offered or required

Vibration Synthesis and Analysis (EML 4220) 3 credits

Prerequisites: EGN 3321 or equivalent and (MAP 2302 or MAP 3305) with minimum grades of "C"

Free and forced vibration of mechanical systems; damping; periodic and transient excitations; vibration control; multiple degree of freedom and continuous systems.

Replace the following course description

Vibration Synthesis and Analysis (EML 4220) 3 credits

Prerequisites: EGN 3321 or equivalent and (MAP 2302 or MAP 3305) with minimum grades of "C"

Free and forced vibration of mechanical systems; damping; periodic and transient excitations; vibration control; multiple degree of freedom and continuous systems.

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Vibration Synthesis & Analysis (EGN 4323) 3 credits

MAP 3305 (or MAP 2302), EGN 3321

Free and forced vibration of mechanical systems; damping; periodic and transient excitations; two degree of freedom, and continuous systems

Approved by: Jayd Cali
Department Chair: _____
College Curriculum Chair: [Signature]
College Dean: [Signature]
UUPC Chair: J E [Signature]
Undergraduate Studies Dean: [Signature]
UFS President: _____
Provost: _____

Date: _____
04/20/2015
4/23/15
4/24/15
5/8/15

1. Syllabus must be attached; syllabus checklist recommended; see guidelines and checklist: www.fau.edu/academic/registrar/UUPC/info
2. Review Provost Memorandum: Definition of a Credit Hour www.fau.edu/provost/files/Definition_Credit_Hour_Memo_2012.pdf
3. WAC approval (attach if necessary)
4. Gen. Ed. approval (attach if necessary)
5. Consent from affected departments (attach if necessary)