CAL POLY
SAN LUIS OBISPO

B.S. in MECHANICAL ENGINEERING
(General Concentration)
Suggested 4-Year Academic Flowchart

2013-15 Catalog

Updated 8/7/2014

FRESHMAN			SOPHOMORE			JUNIOR			SENIOR		
Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring
Introduction to Mechanical Engineering I **ME 128^ (1)** (1st quarter ME students only)	*Intro. to ME II* **ME 129^ (1)** (ME 128, Con: ME 163)	*Introduction to Mechanical Engineering III* **ME 130^ (1)** (ME 129)	*Engineering Statics* **ME 211 (3)** (MATH 241†, PHYS 131 or 141)	*Mechanics of Materials I* **CE 204 (3)** (ME 211)	*Mechanics of Materials II* **CE 207 (3)** (CE 204)	*Intermediate Dynamics* **ME 326 (4)** (MATH 244†, ME 212, CSC 231 or 234)	*Introduction to Design* **ME 328 (4)** *	*Intermediate Design* **ME 329 (4)** (ME 328)	*Senior Design Project I* **ME 428 (3)** (ME 318, ME 329, ME 343)	*Senior Design Project II* **ME 429 (2)** (ME 428)	*Senior Design Project III* **ME 430 (1)** (ME 429)
	Orientation to ME **ME 163^ (1)** (Concur: ME 129)										
	General Physics I **PHYS 131 or 141 (4)** * [Add'l Area B]	*General Physics II* **PHYS 132 (4)** (PHYS 131, HNRS 131, or PHYS 141)	*General Physics III* **PHYS 133 (4)** (PHYS 131, 141, or HNRS 131; MATH 142. Recom: MATH 241)	*Engineering Dynamics* **ME 212 (3)** (MATH 241; ME 211 or ARCE 211)	*Philosophy of Design* **ME 234 (3)** (ME 130 or 228)	*Thermodynamics I* **ME 302 (3)** (PHYS 132; ME 212 or CHEM 128)	*Thermodynamics II* **ME 303 (3)** (ME 302)	*Heat Transfer* **ME 343 (4)** (ME 341; ME 302 or MATE 380; MATH 244; CSC 231 or 234)	*Thermal Science Laboratory* **ME 346 (1)** (ME 303, ME 343)	**Take concurrently: BIO 213 (2), ENGR/BRAE 213 (2)** (MATH 142, Recom: CHEM 124) [B2]	*Thermal System Design* **ME 440 (4)** (ME 303, ME 347, ME 343)
Calculus I **MATH 141 (4)** * [B1]	*Calculus II* **MATH 142 (4)** (MATH 141 w/min C-) [B1]	*Calculus III* **MATH 143 (4)** (MATH 142 w/min C-) [Add'l Area B]	*Calculus IV* **MATH 241 (4)** (MATH 143)	*Linear Analysis I* **MATH 244 (4)** (MATH 143)	*Linear Analysis II* **MATH 344 (4)** (MATH 206 & 242; or MATH 241 & 244) [B6]	*Fluid Mechanics I* **ME 341 (3)** (ME 212 or ARCE 225)	*Fluid Mechanics II* **ME 347 (4)** (ME 236, ME 341, ME 302 or Instr. consent)	*Mechanical Vibrations* **ME 318 (4)** (ME 326, MATH 344. Recom: EE 201)	**Technical Elective (4)** ***	**Technical Elective (4)** ***	**Technical Elective (4)** ***
Manufacturing Processes: Materials Joining **IME 142 (2)**	*Manufacturing Processes* **IME 141 (1) or IT 341 (4)***	*Gen. Chem. I* **CHEM 124 (4)*** [B3/B4]	*Gen. Chem. II* **CHEM 125 (4)** (CHEM 124)	*Measurements and Engineering Data Analysis* **ME 236 (3)** (ME 128†. Recom: ENGL 134, CHEM 125, PHYS 131)	*Comp. Sci.* **CSC 231 (2)** (MATH 142; PHYS 121, 131, or 141) **or CSC 234 (3)** (MATH 142)	*Electric Circuit Theory and Lab* **EE 201 (3) & EE 251 (1)** (MATH 244, PHYS 133)	*Electronics, and Electronics Lab* **EE 321 (3) & EE 361 (1)** (EE 201/251)	*Energy Conversion Electromagnetics & Lab* **EE 255 (3) & EE 295 (1)** (EE 201 & EE 251)	*Mechanical Control Systems* **ME 422 (4)** (ME 318)	**GE (4)** **	**GE (4)** **
GE (4) **	*Manufacturing Processes: Material Removal* **IME 143 (2)**		*Introduction to Detailed Design with Solid Modeling* **ME 251 (2)** (ME 130 or 228; Soph Standing)	**GE (4)** **	*Materials Engineering* **MATE 210 (3)** (CHEM 111, 124, or 127. Recom: Concurrent MATE 215)	**GE (4)** Recommended: ECON 201 **			**GE (4)** **	**GE (4)** **	**GE (4)** **
					Materials Laboratory I **MATE 215 (1)** (MATE 210†)						
Expository Writing **ENGL 133/134 (4)**** [A1] Can be taken anytime during Freshman Year											
Oral Communication **COMS 101/102 (4)**** [A2] Can be taken anytime during Freshman Year											
	Technical Writing **ENGL 149 (4)** [A3] (Completion of GE A1 with a C- or better, Recom: Completion of GE A2) Can be taken anytime between Winter of Freshman and Winter of Sophomore Years					*Graduation Writing Requirement* **GWR*** (Can be taken any time after 90 earned units)					
15	17	17	17	17	16-17	18	15	16	16	18	17
										TOTAL:	199-200

Notes:

MOST GENERAL EDUCATION COURSES CAN BE TAKEN IN ANY ORDER AS LONG AS PREREQUISITES ARE MET

* Refer to current catalog for prerequisites.

** One course from each of the following GE areas must be completed: A1, A2, C1, C2, C3, C4, D1, D2, D3, D4. C4 should be taken only after Junior standing is reached (90 units).

Refer to online catalog for GE course selection, United States Cultural Pluralism (USCP) and Graduation Writing Requirement (GWR).

USCP requirement can be satisfied by some (but not all) courses within GE categories: C3, C4, D1, D3, or D4.

*** Refer to current catalog for course selection. ME 470, ME 471, ME 570 and ME 571 are variable topics courses and may or may not count as ME electives. Please contact instructor for additional information. ME 400 and ME 500 are independent study classes and may be acceptable for technical elective credit. A course substitution form is required. Exceptions to this policy are possible through consultation with the department chair.

† Course can be taken previously or concurrently.

^ Transfer students take ME 228 & 229 in lieu of ME 128, 129, 130 and 163

Legend:

Course Title
Course # (Units)
(Prerequisite)
[GE Area]

- **Major (60)**
- **Support (77-78)**
- **Concentration (22)**
- **General Ed. (40)**