

CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA  
 MECHANICAL ENGINEERING DEPARTMENT  
 FREQUENCY OF OFFERING OF REQUIRED CORE COURSES  
 SUBJECT TO AVAILABILITY OF FACULTY AND STUDENT DEMAND

**Revised FALL 2008**

Course #	Title	Fall 08	Winter 09	Spring 09	Fall 09	Winter 10	Spring 10
ME 100L	ME Orientation	*	*	*	*	*	*
ME 214	Vector Statics	*	*	*	*	*	*
ME 224L	Mechanics Lab	*	*	*	*	*	*
ME 215	Vector Dynamics I	*	*	*	*	*	*
ME 218	Str of Mat. I	*	*	*	*	*	*
ME 219	Str of Mat II	*	*		*	*	
ME 220L	Str of Mat lab	*	*	*	*	*	*
ME 231	ME Communications	*		*	*		*
ME 232/A	Engr Digital Comp		*	*		*	*
ME 233/L	Intro to Mech Design	*		*	*		*
ME 301	Thermodynamics I	*	*	*	*	*	*
ME 302	Thermodynamics II	*	*		*	*	
ME 311	Fluid Mech. I	*	*	*	*	*	*
ME 312	Fluid Mech II	*	*		*	*	
ME 313L	Fluid Mech Lab	*	*	*	*	*	*
ME 315	Engr. Mat.		*	*		*	*
ME 316	Vector Dynamics II	*		*	*		*
ME 319	Stress Analysis		*	*		*	*
ME 325/L	Machine Design	*		*	*		*
ME 340	Modeling of Systems	*		*	*		*
ME 350L	Engr. Mat. Lab	*	*	*	*	*	*
ME 406/A	Finite Element Analysis	*	*		*	*	
ME 415	Heat Transfer	*		*	*		*
ME 418/L or ME 427	Air Conditioning or Thermal Systems Design	*	*	*	*	*	*
ME 435/L	Adv. Engr. Measurements	*	*		*	*	
ME 439/L	Design of Machine Controls	*		*	*		*
ME 461	Senior Project	*	*	*	*	*	*
ME 462	Senior Project	*	*	*	*	*	*
ME 471	Professional Practice	*	*	*	*	*	*
ME 472	Professional Practice	*	*	*	*	*	*
ME 473	Professional Practice	*	*	*	*	*	*
EGR 481	Project Design Prin. & Appl.	*	*	*	*	*	*
EGR 482	Project Design Prin. & Appl.	*	*	*	*	*	*

CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA  
MECHANICAL ENGINEERING DEPARTMENT

TWO YEAR PROJECTION FOR TECHNICAL ELECTIVES  
**SUBJECT TO AVAILABILITY OF FACULTY AND STUDENT DEMAND**

**FALL 2008**

Course #	Units	Title	Director	F08	W09	Sp09	F09	W10	Sp10
ME									
299A	2	3-D Visualization	Cook	1	1		1	1	
299L	1	Machine Tool Theory & Applications	Stover	1	1		1	1	
299L	2	Intro. to Robotics/Mechtronics	Caffrey	1	1	1			
306	4	Energy Management	Biddle			1			1
307	4	Alternative Energy Systems	Miller		1			1	
330	4	Engr. Numerical Computations	Shis	1		1	1		1
405	4	Acoustics	Gates			1			1
406	3/1	Finite Elements	Caffrey	1	1	1	1	1	1
407	3/1	Solar Thermal Energy	Ritz			1			1
408	4	Nuclear Energy	Miller	1			1		
411	3/1	Heat Power	Miller	1			1		
412	3/1	Internal Combustion Engines	Miller			1			1
413	4	Mechanical Vibrations	Shelton	1			1		
418	4	Air conditioning*	Xue		1	1		1	1
421	4	Kinematics & Dynamics of Machinery	Jawaharlal			1			1
425	3/1	Machine Design & Analysis	Anderson			1			
427	4	Thermal Systems Design*	Shih	1	1		1	1	
439	4	Design of Mach. Controls	Anderson	1	1	1	1	1	1
499	4	Alternative Fueled Vehicles	Caffrey						
499/L	3/1	Autonomous Robotic Vehicle Design	Anderson						
499/L	3/1	MEMS	Anderson				1		
499/L	3/1	Mechatronics/Lab	Anderson					1	
499/L	3/1	Bioengineering	Kim			1			
499	4	Introduction to Robotics	Caffrey						1
499	4	Mechanics of Composite Materials	Rejali					1	
499	4	Optimization	Jawaharlal						
499	3/1	Design Applications	Cook	1			1		

\*Students on 99-00 and later flowcharts may take only one of these courses for tech. elec. credit

\*\* Offered upon student demand

		Totals		8	5	10	9	7	9
All graduate courses in Mechanical Engineering are acceptable as tech electives via a student petition									
EGR				F08	W09	Sp09	F09	W10	Sp10
	512	VECTOR ANALYSIS & COMPLEX VARIABLES	Anderson		1				
	513	TENSOR ANALYSIS	Dashner				1		
	514	VARIATIONAL METHODS	Dashner						
	520	ELASTICITY	Piroozan						
	532	CONDUCTION HEAT TRANSFER	Gates						
	533	MECHANICAL METALLURGY	Ravi						
	534	FRACTURE OF SOLIDS	Piroozan						
	535	ADV. FLUID DYNAMICS	Anderson					1	
	536	ADV. CLASSICAL DYNAMICS	Rezaei		1				
	545	ADV. THERMODYNAMICS	Xue						
	550	ADV. TRANSPORT PHENOMENA	Xue						
	556	ADV. MECH. OF MAT.	Piroozan		1				
	557	ANALYSIS OF MECH. DESIGN	Caffrey				1		
	564	RADIATION HEAT TRANSFER	Xue						
	570	CONTINUOUS VIBRATIONS	Rezaei						
	576	COMBUSTION THEORY	Anderson						
	584	CONVECTIVE HEAT TRANSFER	Xue						
	590	SOLAR ENERGY SYSTEMS	Ritz					1	
	591	DIRECT ENERGY CONVERSION	Biddle						
	595	BOUNDARY LAYER CONCEPTS	Anderson						1
	599	ADVANCED HEAT TRANSFER	Anderson			1			
	599	CONTINUUM MECHANICS	Dashner						
	599	STOCHASTIC DYNAMICS	Caffrey						
	599	FAILURE ANALYSIS	Hagdi						
	599	OPTIMIZATION	Jawaharlal						
	599	Adv. Mechanism Design	Jawaharlal						
	599	Non-linear FEA	Piroozan						
	599	Biological Engineering / FEA Modeling	Puskar						
	632	COMPUTATIONAL FLUID DYNAMICS	Anderson	1					