2013 – 14 DEGREE REQ. WORKSHEET
CMU/CU-Boulder Mechanical Engineering Partnership Program
www.coloradomesa.edu/engineering

University of Colorado Boulder

Name: _____ CMU ID #:_____

IMPORTANT NOTE: This sheet is only a worksheet to track your progress in the CMU/CU-Boulder Mechanical Engineering Partnership Program. An official review of your coursework will be performed by CU administration to ensure completion of all graduation requirements.

*****Students should work closely with a faculty advisor when selecting and scheduling courses prior to registration.**

Minimum credits to graduate: 128 hrs

CMU/CU-BOULDER MECHANICAL ENGINEERING REQUIRED COURSES:

Course No	Title	Sem.hrs	Grade	Term/Trns
Mathematics and Computer Science: 19 semester hours				
MATH 135	Engineering Calculus I	4	_____	_____
MATH 136	Engineering Calculus II	4	_____	_____
MATH 253	Calculus III	4	_____	_____
MATH 236	Differential Equations & Linear Algebra	4	_____	_____
CSCI 130	Intro to Engr Computing	3	_____	_____
Physical Science: 18 semester hours				
PHYS 131	Fundamental Mechanics	4	_____	_____
PHYS 131L	Fundamental Mechanics Laboratory	1	_____	_____
PHYS 132	Electromagnetism & Optics	4	_____	_____
PHYS 132L	Electromagnetism & Optics Laboratory	1	_____	_____
PHYS 231	Modern Physics	3	_____	_____
CHEM 131	General Chemistry	4	_____	_____
CHEM 131L	General Chemistry Laboratory	1	_____	_____
English: 3 semester hours				
ENGL 425	Scientific Writing	3	_____	_____
Machining: 1 semester hour				
MAMT 102	Machining Fundamentals	1	_____	_____
Basic Engineering: 20 semester hours				
ENGR 101	Introduction to Engineering	2	_____	_____
ENGR 125	CAD and Fabrication	3	_____	_____
ENGR 140	1st-Year Engr Projects	3	_____	_____
ENGR 224	Materials Science	3	_____	_____
ENGR 261	Statics and Structures	3	_____	_____
ENGR 343	Dynamics	3	_____	_____
ENGR 263	Mechanics of Solids	3	_____	_____

Course No	Title	Sem.hrs	Grade	Term/Trns
CU-Boulder Mechanical Engineering Courses:				
40 semester hours				
MCEN 3012	Thermodynamics	3	_____	_____
MCEN 3017	Circuits & Electronics	3	_____	_____
MCEN 3021	Fluid Mechanics	3	_____	_____
MCEN 3022	Heat Transfer	3	_____	_____
MCEN 3025	Component Design	3	_____	_____
MCEN 3030	Computational Methods	3	_____	_____
MCEN 3037	Exp Design & Data Anal	2	_____	_____
MCEN 3032	Thermodynamics 2	3	_____	_____
MCEN 4026	Manufacturing Processes & Systems	3	_____	_____
MCEN 4037	Measurements Laboratory	2	_____	_____
MCEN 4043	System Dynamics	3	_____	_____
MCEN 4045	ME Design Project 1	3	_____	_____
MCEN 4047	Mechanical Engineering Laboratory	2	_____	_____
MCEN 4085	ME Design Project 2	4	_____	_____

ELECTIVE COURSES:

Humanities and Social Science: 15 semester hours (6 hours must be upper division). Check website for complete list of courses.

9 semester hours Lower Division Humanities & Social Science

SOCI 120	Technology & Society	3	_____	_____	
_____	_____ _____	_____	_____	_____	
_____	_____ _____	_____	_____	_____	

6 semester hours Upper Division Humanities & Social Science

_____	_____ _____	_____	_____	_____	
_____	_____ _____	_____	_____	_____	

Technical Electives: 12 semester hours (6 hours MCEN and 6 hours upper division math, science or engineering courses).

MCEN	_____ _____	_____	_____	_____	
MCEN	_____ _____	_____	_____	_____	
_____	_____ _____	_____	_____	_____	
_____	_____ _____	_____	_____	_____	
_____	_____ _____	_____	_____	_____	

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This is a recommended sequence of course-work. Certain courses may have prerequisites or are only offered during the fall or spring semesters. It is the responsibility of the student to meet regularly with their assigned advisor.

Freshman Year

FALL SEMESTER		*Credit Hr*	*SPRING SEMESTER*		*Credit Hr*
MATH 135	Engineering Calculus I	4	MATH 136	Engineering Calculus II	4
PHYS 131	Fundamental Mechanics	4	PHYS 132	Electromagnetism & Optics	4
PHYS 131L	Fundamental Mechanics Lab	1	PHYS 132L	Electromagnetism & Optics Lab	1
ENGR 101	Introduction to Engineering	2	ENGR 140	1st Year Engineering Projects	3
ENGR 125	CAD & Fabrication	3	CSCI 130	Introduction to Engineering Computing	3
MAMT 102	Fundamental Machining	1			
	TOTAL	15		TOTAL	15

Sophomore Year

FALL SEMESTER		*Credit Hr*	*SPRING SEMESTER*		*Credit Hr*
MATH 253	Calculus III	4	MATH 236	Differential Equations & Linear Algebra	4
CHEM 131	General Chemistry	4	ENGR 343	Dynamics	3
CHEM 131L	General Chemistry Lab	1	ENGR 263	Mechanics of Solids	3
ENGR 224	Materials Science	3	PHYS 231	Modern Physics	3
ENGR 261	Statics & Structures	3		Hum/Soc Sci Elect (Lower Div)	3
SOCI 120	Technology & Society	3			
	TOTAL	18		TOTAL	16

Junior Year

FALL SEMESTER		*Credit Hr*	*SPRING SEMESTER*		*Credit Hr*
MCEN 3012	Engineering Thermodynamics	3	MCEN 3022	Heat Transfer	3
MCEN 3017	Electronics & Circuits	3	MCEN 3025	Component Design	3
MCEN 3021	Fluid Mechanics	3	MCEN 3037	Experimental Design & Data Analysis	2
MCEN 3030	Computational Methods	3	MCEN 3032	Thermodynamics 2	3
	Hum/Soc Sci Elect (Lower Div)	3	ENGL 425	Scientific Writing	3
				Hum/Soc Sci Elect (Upper Div)	3
	TOTAL	15		TOTAL	17

Senior Year

FALL SEMESTER		*Credit Hr*	*SPRING SEMESTER*		*Credit Hr*
MCEN 4026	Manufacturing Processes & Sys	3	MCEN 4047	ME Laboratory	2
MCEN 4043	Systems Dynamics	3	MCEN 4085	ME Design Project 2	4
MCEN 4037	Measurements Lab	2		MCEN Technical Elective	3
MCEN 4045	ME Design Project 1	3		General Technical Elective	3
	MCEN Technical Elective	3		General Technical Elective	3
	Hum/Soc Sci Elect (Upper Div)	3			
	TOTAL	17		TOTAL	15

Black – CMU courses, red – CU courses

Total Credit Hours = 128

Updated 6/1/2013