

Name: \_\_\_\_\_ CMU ID #: \_\_\_\_\_

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

- In order to take any Math, Science or Engineering courses, each listed prerequisite (or an equivalent course) must be completed with a grade of “C” or better.
- All engineering students must take ENGL 111 and 112 unless they meet or exceed one of the following criteria: ACT ENGL 24 or SAT Verbal 550 or AP English (Lit & Comp or Lang & Comp) 4 or IB English 4.

Minimum credits to graduate: 128 hrs

**CMU/CU-BOULDER CIVIL ENGINEERING REQUIRED COURSES:**

Course No	Title	Sem.hrs	Grade	Term/Trns
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**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:** 15 semester hours

PHYS 131	Fundamental Mechanics	4	_____	_____
PHYS 131L	Fundamental Mechanics Laboratory	1	_____	_____
PHYS 132	Electromagnetism & Optics	4	_____	_____
PHYS 132L	Electromagnetism & Optics Laboratory	1	_____	_____
CHEM 151	Engineering Chemistry	4	_____	_____
CHEM 151L	Engineering Chemistry Lab	1	_____	_____

**Basic Science:** 3 semester hours. Choose from the following:

- GEOL 103 – Weather & Climate
  - GEOL 104 – Oceanography
  - GEOL 105 – Geology of Colorado
  - GEOL 107 – Natural Hazards & Environmental Geology
  - GEOL 108 – Water, People & Environment
  - GEOL 111/111L – Principles of Physical Geology (4-cr)
  - GEOL 113/113L – Field-Based Intro to Physical Geol (4-cr)
  - GEOL 250 – Environmental Geology
  - ENVS 101 – Introduction to Environmental Science
  - BIOL 102/102L – Plant & Animal Biodiversity (4-cr)
  - BIOL 105/105L – Attributes of Living Systems (4-cr)
  - BIOL 209/209L – Human Anatomy & Physiology (4-cr)
- \_\_\_\_\_ 3 \_\_\_\_\_

**English:** 3 semester hours

ENGL 325	Writing for Engineers	3	_____	_____
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**Free Elective:** 3 semester hours

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**Basic Engineering:** 22 semester hours

CIVE 127	Engineering Drawing	3	_____	_____
CIVE 212	Introduction to Geomatics	3	_____	_____
CIVE 313	Theoretical Fluid Mechanics	3	_____	_____
ENGR 101	Introduction to Engineering	1	_____	_____
ENGR 140	1st-Year Engr Projects	3	_____	_____
ENGR 261	Statics and Structures	3	_____	_____
ENGR 263	Mechanics of Solids	3	_____	_____
ENGR 343	Dynamics	3	_____	_____

**CU-Boulder Civil Engineering Courses:** 36 semester hours

CVEN 3227	Probability & Statistics	3	_____	_____
CVEN 3246	Intro to Construction	3	_____	_____
CVEN 3256	Constr Equip & Methods	3	_____	_____
CVEN 3323	Hydraulics	3	_____	_____
CVEN 3414	Fund of Environmental Engr	3	_____	_____
CVEN 3525	Structural Analysis	3	_____	_____
CVEN 3708	Geotechnical Engineering I	3	_____	_____
CVEN 3718	Geotechnical Engineering II	3	_____	_____
CVEN 4545	Steel Design	3	_____	_____
CVEN 4897	Professional Issues	2	_____	_____
CVEN 4899	CE Design Project	4	_____	_____
MCEN 3012	Thermodynamics	3	_____	_____

**ELECTIVE COURSES:**

**Humanities and Social Science:** 15 semester hours

9 semester hours **Lower Division** Humanities & Social Science

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

6 semester hours **Upper Division** Humanities & Social Science

_____	_____	3	_____	_____
_____	_____	3	_____	_____

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

CVEN	_____	_____	_____	_____
CVEN	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

**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		Hours	Spring Semester		Hours
MATH 135	Engineering Calculus I	4	MATH 136	Engineering Calculus II	4
CHEM 151	Engineering Chemistry	4	PHYS 131	Fundamental Mechanics	4
CHEM 151L	Engineering Chemistry Lab	1	PHYS 131L	Fundamental Mechanics Lab	1
ENGR 101	Intro to Engineering	1	ENGR 140	First-Year Engr. Projects	3
CIVE 127	Engineering Drawing for CE	3	CSCI 130	Intro to Engineering Computing	<u>3</u>
SOCI 120	Technology and Society	<u>3</u>			15
		16			

SOPHOMORE YEAR					
Fall Semester		Hours	Spring Semester		Hours
MATH 253	Calculus III	4	MATH 236	Differential Equations & Linear Algebra	4
PHYS 132	Electro Mag & Optics	4	CIVE 313	Theoretical Fluid Mechanics	3
PHYS 132L	Electro Mag & Optics Lab	1	ENGR 343	Dynamics	3
ENGR 261	Statics and Structures	3	ENGR 263	Mechanics of Solids	3
CIVE 212	Introduction to Geomatics	3		Hum/Soc Sci Elect (Lower Div)	<u>3</u>
	Basic Science **	<u>3</u>			16
		18			

JUNIOR YEAR					
Fall Semester		Hours	Spring Semester		Hours
CVEN 3414	Fundamentals of Environmental Engr	3	CVEN 3227	Probability and Statistics	3
CVEN 3246	Introduction to Construction	3	CVEN 3323	Hydraulics	3
CVEN 3708	Geotechnical Engineering I	3	CVEN 3256	Construction Equipment & Methods	3
CVEN 3525	Structural Analysis	3	CVEN 3718	Geotechnical Engineering II	3
	Hum/Soc Sci Elect (Lower Div)	<u>3</u>	ENGL 325	Writing for Engineers	<u>3</u>
		15			15

SENIOR YEAR					
Fall Semester		Hours	Spring Semester		Hours
CVEN 4545	Steel Design	3	CVEN 4899	CE Design Project	4
CVEN 4897	Professional Issues	2		CVEN Technical Elective	3
MCEN 3012	Thermodynamics	3		General Technical Elective	3
	CVEN Technical Elective	3		Free Elective	3
	General Technical Elective	3		Hum/Soc Sci Elect (Upper Div)	<u>3</u>
	Hum/Soc Sci Elect (Upper Div)	<u>3</u>			16
		17			

Black – CMU courses, red – CU courses

\*\*Basic Science courses include: GEOL 103 Weather and Climate, GEOL 104 Oceanography, GEOL 105 Geology of Colorado, GEOL 107 Natural Hazards and Environmental Geology, GEOL 108 Water, People and Environment, GEOL 111/111L Principles of Physical Geology (4cr), GEOL 113/113L Field-Based Intro to Physical Geology (4-cr), GEOL 250 Environmental Geology, ENVS 101 Introduction to Environmental Science, BIOL 102/102L Plant and Animal Biodiversity (4-cr), BIOL 105/105L Attributes of Living Systems (4-cr), BIOL 209/209L Human Anatomy and Physiology (4-cr). Classes with a lab component must be taken concurrently.

Total Credit Hours = 128

### **Acceptable Course Substitutions**

MATH 151 (5) for MATH 135 (4)  
MATH 152 (5) for MATH 136 (4)  
MCEN 3021 (3) for CIVE 313 (3)  
CHEM 131 (4) & CHEM 132 (4) for CHEM 151 (4)  
CHEM 131L (1) & CHEM 132L (1) for CHEM 151L (1)

### **Humanities & Social Science Electives**

See: <http://www.coloradomesa.edu/engineering/documents/HSSAcceptableClasses-August2015Update.pdf>

### **General Technical Electives**

300 and 400 level courses in the following subjects are considered General Technical Electives: CHEM, ENGR, MATH, PHYS

3000 and 4000 level courses in the following subjects are considered General Technical Electives: CVEN, MCEN

### **CVEN Technical Electives**

4000 level CVEN courses not otherwise required for the major are considered CVEN Technical Electives.

### **Grade Requirements**

The minimum passing grade for prerequisite and co-requisite classes in the BSCE curriculum is a C. This includes courses completed outside the program (MATH, PHYS, etc.). The minimum passing grade for standalone classes is a D-. In addition, students need to have a cumulative and major GPA of at least 2.25 in order to graduate from the CU Boulder College of Engineering.

### **Free Electives**

College level coursework accepted by CU Boulder not used otherwise to satisfy BSME degree requirements. Use Transferology.com to verify that courses will transfer to CU Boulder.

### **Course Work Not Accepted for Transfer Credit**

The following course work will not be accepted for transfer credit and will not count toward a degree at Boulder:

- any courses in which the grade earned is below a C- (1.70)
- courses identified by CU Boulder as remedial, such as remedial English, mathematics, science and developmental reading
- vocational-technical courses that are offered at two-year and proprietary institutions (exceptions may be granted only by the CU Boulder dean responsible for the student's curriculum—when exceptions appear to be warranted, appropriate department heads make recommendations to their respective deans regarding credit for such courses)
- courses in religion that constitute specialized religious training or that are doctrinal in nature
- credits earned for work experience or through a cooperative education program
- outdoor leadership education course work
- credits earned in physical education activity courses
- courses or programs identified as college orientation