Construction Engineering Curriculum Facts
CNM to UNM
***********IMPORTANT: To assure accuracy based on individual curriculum, student must meet with advisors at CNM and UNM***********

- The course ENGR 2088 is an Engineering Elective course specific to UNM Engineering B.S. curriculum. ENGR 2088 is a course completed at UNM, then transferred back to CNM.
  - Ex. The course ECE 330 is completed at UNM, then transferred to CNM where it becomes ENGR 2088. Course fulfills A.S. and B.S. requirements.

Engineering
Students should contact an Advisor to understand UNM Engineering Curriculum Semester Sequencing upon full transfer.

- IT 1010 IT 1010
  - All CNM students are eligible to challenge IT 1010. IT 1010 is not a UNM B.S. requirement, but is a CNM A.S. requirement. UNM does not accept credit hours for the completion of IT 1010 challenge exam.
- ENGR 2815 Engineering Dynamics
  - ENGR 2815 Engineering Dynamics at CNM will satisfy UNM ME 306 Dynamics requirement, but the course will maintain lower level status and will not fulfill upper division degree requirements.
- MATH 2910 Applied Ordinary Differential Equations
  - MATH 2910 Applied Ordinary Differential Equations at CNM will satisfy UNM's MATH 316 Applied Ordinary Differential Equations, but will maintain lower level status and will not fulfill upper division degree requirements.

Construction Engineering Departmental Requirements:
Complete the following list of courses with a GPA of 2.75 or better and a grade of C- or better in each course.
- MATH 162 (4) = MATH 1710 (4)
- MATH 163 (4) = MATH 1715 (4)
- CHEM 121/123L = CHEM 1710/1792 (4)
- CS 151L (3) = CSCI 1153 (4)
- PHYC 160 (3) = PHYS 1710 (4)
- ENGR 2088 = CE 160L (3)

For further questions regarding Transfer to UNM in the STEM fields contact:

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Developing STEM Pathways for the Future

Construction Engineering Curriculum Alignment

CNM Engineering A.S. to UNM Construction Engineering B.S. Four Year Road Map

Semester One:

Course Subject and Title	Cr. Hrs. CNM Major	Major Core	UNM Equivalent/ Prerequisites	UNM Major
ENG 1101	3	3	ENGL 110	
MATH 1710	4	4	MATH 162	
CHEM 1710/1792	4	4	CHEM 121/123L	
ENGR 2088	3	3	UNM CE 160	
IT 1010	3	3		
Total:	17	17		11

Semester Two:

Course Subject and Title	Cr. Hrs. CNM Major	Major Core	UNM Equivalent/ Prerequisites	UNM Major
ENG 1102	3	3	ENGL 120	
MATH 1715	4	4	MATH 163	
PHYS 1710/1792	5	5	PHYC 160/160L	
CSCI 1153	4	4	CS 151L	
ENGR 1010	1	1		
Total:	17	17		3

Semester Three:

Course Subject and Title	Cr. Hrs. CNM Major	Major Core	UNM Equivalent/ Prerequisites	UNM Major
ENG 2219	3	3	ENGL 219	
MATH 2710	4	4	MATH 264	
PHYS 1810/1892	5	5	PHYC 161/161L	
ENGR 2810	3	3	CE 202/Pre-req PHYS 1710	
Fine Arts	3	3		
Total	18	18		6

Semester Four:

Course Subject and Title	Cr. Hrs. CNM Major	Major Core	UNM Equivalent/ Prerequisites	UNM Major
ACCT 1110	3	3	MGMT 202	
MATH 2910	3	3	MATH 316	
CHEM 1810/1892 or EPS 1101	3	3	CHEM 122/124(4 Cr. Hrs) or EPS 101 (3 Cr. hrs)	
ENGR 2815	3	3	ME 306/Pre-req ENGR 2810/ Pre or Co-req Math 2710	
Humanities	3	3		
Total	15	12		6

Summer Semester:

Course Subject and Title	Cr. Hrs. CNM Major	Major Core	UNM Equivalent/ Notes	UNM Major
ECON 2200	3	3	ECON 105	3
Humanities	3			3
Social/Behavioral	3			3
Total:	9	9		9

A.S. Total | 76 | 73 | | 35 |

Semester Five:

	Major	Minor	UD Hrs	Notes
CE 283	3			Pre-req Math 162 (CNM's 1710)
CE 302	3			Pre-req CE 202 (CNM's ENGR 2810)/Pre or Co-req Math 316 (CNM's 2910)
CE 305	4			Pre-req CE 202 (CNM's ENGR 2810)/Pre or Co-req Math 316 (CNM's 2910)
CE 350	4			Pre-req ENGL 219)/(CNM's ENG 2219)/ Pre or Co-req CE 302 or 371
CE 376	3			Pre-req Math 162 (CNM's Math 1710)/Must be Junior or Senior standing
Total	16		13	

Semester Six:

	Major	Minor	UD Hrs	Notes
CE 308	3			Pre-req CE 302 and 305
CE 310	4			Pre or Co-req CE 308
CE 360	4			Pre-req CE 302
CE 370	3			Pre-req CE 350/ Must be Junior or Senior standing
CE 377	3			
Total	17		17	

Semester Seven:

	Major	Minor	UD Hrs	Notes
STAT 345	3			Pre-req Math 162 or 163(CNM's Math 1465 or 1715)
CE 331	4			Pre or Co-req CE202(CNM's ENGR 2810) and ME 302 and three lectures
CE 455	3			Must be Junior or Senior standing
CE 477	3			Pre-req CE 376 and 377/ Must be Junior or Senior standing
CE 495	1			Must be Junior or Senior standing
*Foreign Language	3			
Total	17		14	

Semester Eight:

	Major	Minor	UD Hrs	Notes
CE 409	1			Must be Senior standing
CE 473	3			Pre-req CE 376,377 and ENGL 219(CNM's ENG 2219)/Must be Junior or Senior
CE 475	3			Pre-req CE 376,377 and ENGL 219(CNM's ENG 2219)/Must be Junior or Senior
CE 499L	3			Pre-req CE 310, 331, 350 and 360/ Must be Senior standing
ECE 203 or CHNE/ME 301	3			ECE 203 offered at CNM ENGR 2910/ME 301 Offered at CNM/ENGR 2710
Total	13		10	

Summer Semester:

	Major	Core	UNM Major
Total	0	0	0

B.S. Total | 139 | | 54 | | 69 |

*Asterisk information is noted on the Curriculum Facts.

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***********IMPORTANT: To assure accuracy based on individual curriculum, student must meet with advisors at CNM and UNM. Roadmap is a suggested degree plan***********

Degree Transfer Agreement Fall 2013 – Summer 2016 based on 2013-2014 CNM and UNM Catalogs

Central New Mexico Community College A.S. Engineering
For transfer into
University of New Mexico B.S. Engineering

- This Degree Transfer Agreement fulfills all A.S. Engineering requirements at CNM <u>and</u> Admission requirements to UNM's School of Engineering.
- This Degree Transfer Agreement goes into effect beginning Fall 2013 and will be valid for admission into UNM's School of Engineering through Summer 2016.
- Please speak with your STEM Advisor if you have AP or CLEP credit, which could fulfill certain course requirements below.
- **<u>Pay attention to prerequisite course requirements</u>** and plan courses accordingly. Prerequisites may be different at each institution. Please speak with your STEM Advisor.
- Be sure to review Engineering department admission requirements for the GPA requirement of your major at UNM, as they vary by major. Speak to an advisor <u>before</u> enrolling in coursework.
- All course work required for graduation from UNM must be successfully completed with a 'C' or better within three (3) attempts.

CNM	UNM
A.S. Engineering	B.S. Chemical Engineering
	B.S. Civil Engineering
	B.S. Computer Engineering
	B.S. Construction Engineering
	B.S. Electrical Engineering
	B.S. Mechanical Engineering
	B.S. Nuclear Engineering

Computer and Engineering Courses	
ENGR 1010 Survey of Engineering (1) IT 1010 Introduction to Computers (3)	**Not required for Engineering majors at UNM, but meets A.S. requirement at CNM**
For Electrical & Computer Engineering Majors only: CSCI 1151 Intro to Programming for Non-Majors (4) **OR** *For all other Engineering Majors:* CSCI 1153 Programming in MATLAB (4)	*For Electrical & Computer Engineering Majors only:* ECE 131 Programming Fundamentals (3) **OR** *For all other Engineering Majors:* CS 151L Computer Programming Fundamentals for Non-Majors (3)

Mathematics Courses	
Math placement is determined by Accuplacer exam, ACT or SAT scores. Speak with your STEM advisor to find out which Math course(s) you may need to complete *BEFORE* taking Calculus.	
MATH 1710 Calculus I (4)	MATH 162 Calculus I (4)
MATH 1715 Calculus II (4)	MATH 163 Calculus II (4)
MATH 2710 Calculus III (4)	MATH 264 Calculus III (4)
[1]MATH 2910 Applied Ordinary Diff Equations (3) See your STEM Advisor about this course.	[1]MATH 316/MATH 2T Applied Ord Diff Equations (3) See your STEM Advisor about this course.

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Science Courses **Take the Chemistry and Physics course sequences as listed below:**			
CHEM 1710 (3)	General Chemistry I	CHEM 121 (3)	General Chemistry I
CHEM 1792 (1)	General Chemistry I Lab	CHEM 123L (1)	General Chemistry I Lab
PHYS 1710 (4)	Physics for Scientists I	PHYC 160 (3)	General Physics I
PHYS 1792 (1)	Physics for Scientists I Lab	PHYC 160L (1)	General Physics I Lab
PHYS 1810 (4)	Physics for Scientists II	PHYC 161 (3)	General Physics II
PHYS 1892 (1)	Physics for Scientists II Lab	PHYC 161L (1)	General Physics II Lab
Communications Core			
ENG 1101 (3)	College Writing	ENGL 101 (3)	Composition I: Exposition
ENG 1102 (3)	Analytic & Argumentative Writ	ENGL 102 (3)	Composition II: Analysis & Argum
ENG 2219 (3)	Technical Communications	ENGL 219 (3)	Technical Writing
Humanities Core **Choose two courses below from two different disciplines:**			
ENG 2262 (3)	Survey of Early World Lit	ENGL 292 (3)	World Lit: Ancient to 16th C
ENG 2263 (3)	Survey of Later World Lit	ENGL 293 (3)	World Lit: 17th Century-Pres
HIST 1101 or HUM 1111 Western Civilization I (3)		HIST 101L (3)	Western Civilization to 1648
HIST 1102 or HUM 1112 Western Civilization II (3)		HIST 102L (3)	Western Civilization Post 1648
HIST 1161 (3)	History of the United States I	HIST 161 (3)	History of the U.S. to 1877
HIST 1162 (3)	History of the United States II	HIST 162 (3)	History of the U.S. Since 1877
HIST 1182 (3)	Modern Latin American History	HIST 182 (3)	Modern Latin American History
PHIL 1110 (3)	Intro. to Philosophical Thought	PHIL 101 (3)	Introduction to Philosophy
RLGN 1107 (3)	Living World Religions	RELG 107 (3)	Living World Religions
RLGN 2263 (3)	Eastern Religions	RELG 263 (3)	Eastern Religions
Fine Arts Core **Choose one course below:**			
ARTH 1101 (3)	Introduction to Art	ARTH 101 (3)	Introduction to Art
ARTH 2201 (3)	History of Art I	ARTH 201 (3)	History of Art I
ARTH 2202 (3)	History of Art II	ARTH 202 (3)	History of Art II
ENG 2210 (3)	Film as Literature	MA 210 (3)	Introduction to Film Studies

MUS 1139 (3)	Early Music Appreciation	MUS 139 (3)	Music Appreciation
THEA 1122 (3)	Introduction to Theater	THEA 105 (3)	Theatre Appreciation

Social/Behavioral Sciences Core **Take ECON 2200 and choose one additional course below:**			
ECON 2200 (3)	Macroeconomics (required)	ECON 105 (3)	Introductory Macroeconomics
ANTH 1101 (3)	Introduction to Anthropology	ANTH 101 (3)	Introduction to Anthropology
ANTH 1130 (3)	Cultures of the World	ANTH 130 (3)	Cultures of the World
ECON 2201 (3)	Microeconomics	ECON 106 (3)	Introductory Microeconomics
GEOG 1102 (3)	Human Geography	GEOG 102 (3)	Human Geography
PSCI 1110 (3)	The Political World	POLS 110 (3)	The Political World
PSCI 2200 (3)	US Politics	POLS 200 (3)	American Politics
PSCI 2220 (3)	Comparative Government	POLS 220 (3)	Comparative Politics
PSCI 2240 (3)	International Politics	POLS 240 (3)	International Politics
PSY 1105 (3)	Introduction to Psychology	PSY 105 (3)	General Psychology
SOC 1101 (3)	Introductory to Sociology	SOC 101 (3)	Introduction to Sociology

Engineering Electives **Select 12-13 credits from the courses below according to your specific Engineering major:**			
ACCT 1110 (6)	Accounting I	MGMT 202 (3)	Principles of Financial Acctg
BIO 1010 (3)	Biology for Non-Majors	BIOL 110 (3)	Biology for Non-Majors
BIO 1510 (4)	Molecular and Cell Biology	BIOL 201 (4)	Molecular and Cell Biology
CHEM 1810 (3)	General Chemistry II	CHEM 122 (3)	General Chemistry II
CHEM 1892 (1)	General Chemistry II Lab	CHEM 124L (1)	General Chemistry II Lab
[3]CHEM 2710 (3)	Organic Chemistry I	[3]CHEM 301/CHEM 3T (3)	Organic Chemistry I
[3]CHEM 2792 (1)	Organic Chemistry I Lab	[3]CHEM 303L (1)	Organic Chemistry I Lab
EPS 1101 (3)	Introduction to Geology	EPS 101 (3)	Introduction to Geology
ENGR 2910 (3)	Circuit Analysis I	ECE 203 (3)	Circuit Analysis I
ENGR 2915 (3)	Circuit Analysis II	ECE 213 (3)	Circuit Analysis II
[3]ENGR 2710 (3)	Thermodynamics	[3]ME 301 (3)	Thermodynamics
ENGR 2810 (3)	Engineering Statics	CE 202 (3)	Engineering Statics

[3]ENGR 2815 (3)	Engineering Dynamics		[3]ME 306 (3)	Dynamics
[4]MATH 2810 (3)	Applied Linear Algebra		[4]MATH 314/MATH 2T (3)	Applied Linear Algebra
PHYS 2710 (4)	Physics for Engineers III		PHYC 262 (3)	General Physics
			PHYC 262L (1)	General Physics Lab
ENGR 2088 (1-16)	Engineering Specialty		CE 160 (3)	Civil Engineering Design
			CE 283 (3)	Trans Systems Measurements
			CE 352 (3)	Comp Apps in Civil Engr
			CHNE 101 (1)	Introduction to CHNE
			CHNE 213 (3)	Circuits for CHNE
			CHNE 230 (3)	Principles of Radiation Protection
			CHNE 231 (3)	Principles of Nuclear Engr
			CHNE 251 (3)	Chemical Process Calculations I
			CHNE 253 (3)	Chemical Process Calculations II
			CHNE 302 (3)	Chemical Engr Thermo
			CHNE 314 (3)	Thermo and Nuclear Systems
			CHNE 372 (3)	Nuclear Engr Materials
			ECE 101 (1)	Introduction to ECE
			ECE 206L (2)	Electrical Engr Lab
			ECE 231 (3)	Intermediate Programming
			ECE 238L (3)	Computer Logic Design
			ECE 330 (3)	Software Design
			ME 160 (3)	Mechanical Engr Design I
			[2]ME 217 (3)	Energy, Environment and Society
			ME 260 (3)	Mechanical Engr Design II
			ME 318L (3)	Mechanical Engr Lab
			PHYC 167 (1)	Problems in Gen Physics
TOTAL CREDITS (73-74)			**TOTAL CREDITS** (69-70)	

[1]MATH 2910 at CNM satisfies MATH 316 at UNM in the Engineering major only.

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[2]ME 217 is the required 2nd Social Science for the Mechanical Engineering program at UNM but does not fulfill the Social Behavioral Science requirement at CNM.
[3]This course at CNM will meet the requirement for the course at UNM, but it will not transfer as *upper division* credit.
[4]MATH 2810 at CNM satisfies MATH 314 at UNM in the Engineering majors only.