Brought to you by STEM UP CNM/UNM Cooperative Initiative

Central New Mexico Community College

Associate of Science in Engineering

and

University of New Mexico

School of Engineering- ELECTRICAL ENGINEERING

Transfer Agreement

Fall 2015 – Summer 2018

· Degree requirements for the Associate of Science in Engineering and the coursework's transfer applicability to UNM School of Engineering Civil Engineering degree program listed

·Meet with UNM's Engineering Student Services to determine admission requirements into the School of Engineering and specific engineering degree programs. Admission requirements vary: some specify an amount of transferable and applicable credit hours, a specific prescribed coursework and a minimum GPA requirement.

·Students must meet with CNM STEM UP advisors each semester to plan courses and meet prerequisites for the A.S. and B.S. programs.

Central New Mexico Community College	University of New Mexico
Associate of Science in: Engineering (73-74 credit hours)	**Bachelor of Science in:** Electrical Engineering (120 credit hours)
Oral and Written Communication Complete 9 credit hours	
ENG 1101 College Writing (3)	ENGL 110 Accelerated Composition (3)
ENG 1102 Analytic and Argumentative Writing (3)	ENGL 120 Composition III (3)
ENG 2219 Technical Writing (3)	ENGL 219 Technical and Professional Writing (3)
Mathematics Complete 15 credit hours	
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)
Math 2910 Applied Ordinary Differential Equations (3)* this course is required for the A.S. degree AND MATH 2810 Applied Linear Algebra (3)*Math 2810 Fulfills Program Approved Elective credit hours for A.S. degree.	Electrical Engineering majors: [1]ECE 300 Advance Engineering Mathematics (4) *To earn ECE 300 transfer credit, CNM students may complete MATH 2910 and MATH 2810 to satisfy UNM ECE 300 course requirement OR complete ECE 300 at UNM and transfer course back to CNM to fulfill A.S. in Engineering MATH 2910 program requirement.
Laboratory Sciences Complete 14 credit hours	
CHEM 1710 General Chemistry I (3) **and** CHEM 1792 General Chemistry I (1)	CHEM 121 General Chemistry I (3) **and** CHEM 123L General Chemistry I Lab (1)
PHYS 1710 Physics for Scientists and Engineers I (4) **and** PHYS 1792 Physics for Scientists and Engineers I Lab (1)	PHYC 160 General Physics (3) **and** PHYC 160L General Physics Lab (1)
PHYS 1810 Physics for Scientists and Engineers II (4) **and** PHYS 1892 Physics for Scientists and Engineers II Lab (1)	PHYC 161 General Physics (3) **and** PHYC 161L General Physic Lab (1)
Social and Behavioral Sciences Complete 6 credit hours	
Note:UNM Engineering program requires ECON 105 (CNM equivalent, ECON 2200)	
ECON 2200 Macroeconomics (3)	**ECON 105 Introductory Macroeconomics (3)**
CHOOSE ADDITIONAL 3 CREDIT HOURS FROM COURSES BELOW	
ANTH 1101 Intro Anthropology (3)	ANTH 101 Introduction to Anthropology (3)
ANTH 1110 Language Culture and the Human Animal (3)	ANTH 110 Language, Culture and the Human Animal (3)
ANTH 1120 Archaeology: Discovering Our Past (3)	ANTH 220 World Archaeology (3)
ANTH 1121/1192 Archaeology Field Methods with Laboratory (4)	ANTH 120/122L Archaeological Method and Theory w/ Lab (4)
ANTH 1130 Cultures of the World (3)	ANTH 130 Cultures of the World (3)
ANTH 2238 Cultures of the Southwest (3)	ANTH 238 Cultures of the Southwest (3)
CST 1150 Introduction to Cultural Studies (3)	AMST 185 Introduction to Race, Class and Ethnicity (3)
CST 2260 Popular Culture and Cultural Identity (3)	AMST 184 Introduction to American Popular Culture (3)
ECON 1101 Introduction to Economics (3)	Economics General Elective (3)
ECON 2201 Microeconomics (3)	ECON 106 Introductory Microeconomics (3)
ECON 2203 Society and Environment (3)	ECON 103 Society and Environment (3)
GEOG 1102 Human Geography (3)	GEOG 102 Human Geography (3)
PSCI 1110 Political World (3)	POLS 110 The Political World (3)
PSCI 2200 U.S. Politics (3)	POLS 200 American Politics (3)
PSCI 2210 State and Local Politics (3)	POLS 299 Introductory Political Topics (3)
PSCI 2220 Comparative Government and Politics (3)	POLS 220 Comparative Politics (3)
PSCI 2240 International Politics (3)	POLS 240 International Politics (3)
PSCI 2260 Political Ideas (3)	POLS 260 Political Ideas (3)
PSY 1105 Introduction to Psychology (3)	PSY 105 General Psychology (3)
PSY 2220 Developmental Psychology (3)	PSY 220 Developmental Psychology (3)
PSY 2231 Human Sexuality (3)	PSY 231 Psychology of Human Sexuality (3)
PSY 2233 Psychology and Film (3)	PSY 250 Special Topics in Psychology (3)
SOC 1101 Introduction to Sociology (3)	SOC 101 Introduction to Sociology (3)
SOC 2205 Crime Public Safety and the Criminal Justice System (3)	SOC 205 Crime, Public Policy and the Criminal Justice System (3)
SOC 2211 Social Problems (3)	SOC 211 Social Problems (3)
SOC 2213 Deviant Behavior (3)	SOC 213 Deviance (3)
SOC 2216 Ethnic and Minority Group (3)	SOC 216 The Dynamics of Prejudice (3)
SOC 2221 Global Issues (3)	SOC 221 Global Issues (3)
SOC 2225 Sociology of Family (3)	SOC 225 Marriage, Family and their Alternatives (3)
[1]SOC 2235 Sociology of Gender (3)	[1]SOC 308 Sociology of Gender (3)

Humanities	
Complete 6 credit hours	
ENG 1150 Study of Literature (3)	ENGL 150 The Study of Literature (3)
ENG 2250 Analysis of Literature (3)	ENGL 250 The Analysis of Literature (3)
ENG 2251 Introduction to Dramatic Literature (3)	ENGL English General Elective (3)
ENG 2252 Introduction to Shakespeare (3)	ENGL English General Elective (3)
ENG 2262 Survey of Earlier World Literature (3)	ENGL 292 World Literatures: Ancient World through the 16th Century (3)
ENG 2263 Survey of Later World Literature (3)	ENGL 293 World Literatures: 17th Century through the Present (3)
ENG 2270 Modern Literature (3)	ENGL 287 Topics in Introductory Studies in Genre (3)
ENG 2282 Modern Latin America Literature (3)	ENGL English Elective (3)
ENG 2284 Survey of Earlier English Literature (3)	ENGL 294 Survey of Earlier English Literature (3)
ENG 2285 Survey of Later English Literature (3)	ENGL 295 Survey of Later English Literature (3)
ENG 2287 Earlier American Literature (3)	ENGL 296 Earlier American Literature (3)
ENG 2288 Latin American Literature (3)	ENGL 297 Later American Literature (3)
GNHN 1121 General Honors: The Ancient Legacy (3)	UHON 121 Freshman University Honors Seminar (3)
GNHN 1122 General Honors: The Modern Legacy (3)	UHON 122 Freshman University Honors Seminar (3)
GNHN 2211 Utopian and Dystopian Thought (3)	UHON University Honors Program General Elective (3)
HIST 1101 Western Civilization I (3)	HIST 101 Western Civilization to 1648 (3)
HIST 1102 Western Civilization II (3)	HIST 102 Western Civilization Post 1648 (3)
HIST 1161 History of the United States I (3)	HIST 161 History of the United State to 1877 (3)
HIST 1162 History of the United States II (3)	HIST 162 History of the United State Since 1877 (3)
HIST 1181 Early Latin American History (3)	HIST 181 History of Early Latin America (3)
HIST 1182 Modern Latin American History (3)	HIST 182 Modern Latin American History (3)
HIST 2240 Vietnam: War Politics and Culture (3)	HIST 220 Studies in History (3)
HIST 2260 History of New Mexico (3)	HIST 260 History of New Mexico (3)
HIST 2270 The American West (3)	HIST 220 Studies in History (3)
HUM 1111 Cultures of Civilization (3)	HIST 101 Western Civilization to 1648 (3)
HUM 1121 Cultures and Civilization Renaissance to Present (3)	HIST 102 Western Civilization Post 1648 (3)
PHIL 1102 Ethics in Society (3)	PHIL 102 Current Moral Problems (3)
PHIL 1110 Introduction of Philosophical Thought (3)	PHIL 101 Introduction to Philosophy (3)
PHIL 1156 Logic and Critical Thinking (3)	PHIL 156 Reasoning and Critical Thinking (3)
PHIL 2246 Environmental Ethics (3)	PHIL 245 Professional Ethics (3)
PHIL 2247 Biomedical Ethics (3)	PHIL 245 Professional Ethics (3)
RLGN 1107 Living World Religions (3)	RELG 107 Living World Religions (3)
RLGN 2240 Ancient Religions (3)	RELG 247 Studies in Religion (3)
RLGN 2263 Eastern Religions (3)	RELG 263 Eastern Religions (3)
SPAN 2280 Introduction to Hispanic Literature (3)	SPAN Spanish General Elective (3)
Fine Arts	
Complete 3 credit hours	
ARTH 1101 Introduction to Art (3)	ARTH 101 Introduction to Art (3)
ARTH 2201 History of Art I (3)	ARTH 201 History of Art (3)
ARTH 2202 History of Art II (3)	ARTH 202 History of Art II (3)
ARTH 2250 Modern Art (3)	ARTH 250 Modern Art (3)
ARTH 2251 Art of the American Southwest (3)	ARTH 2251 Artistic Traditions of the Southwest (3)
ARTH 2260 Architectural History: Ancient through Modern (3)	ARTH Art History General elective (3)
ENG 2210 Film as Literature (3)	MA 210 Introduction to Film Studies (3)
MUS 1139 Early Music Appreciation (3)	MUS 139 Music Appreciation (3)
MUS 1140 Modern Music Appreciation (3)	MUS Music General Elective (3)
MUS 1172 Introduction to Jazz (3)	MUS 172 Jazz history (3)
THEA 1122 Introduction to Theatre (3)	THEA 105 Theatre Appreciation (3)
CNM -Engineering A.S. Program Requirements	
Complete 8 credit hours	
ENGR 1010 Survey of Engineering (1) **Required to earn the A.S. Degree at CNM	*No UNM course equivalent*
[2]IT 1010 Computer Concepts and Software Applications (3) --Required to earn the A.S. Degree	[2] CS 150L Computing for Business Students (3) * NOTE: *this course does not apply towards the UNM Major and is only listed here as a course equivalent*
For Electrical Engineering Majors : CSCI 1151 Intro to Programming for NonMajors (4)	For Electrical Engineering Majors : ECE 131 Programming Fundamentals (3)

Engineering A.S. Electives

- Engineering A.S. requirements and listed UNM Engineering B.S. program requirements
- UNM courses listed within the groups are courses typically completed in years One and Two for the represented UNM Engineering major.
- Note: ENGR 2088 is not an instructor-led content based course at CNM. For this worksheet it is listed as an Elective and is used as a CNM course number code that captures Engineering transfer courses from UNM.

Engineering A.S.	**Electrical Engineering B.S. Requirements:**
Elective Options 12-13 credit hours required:	
ENGR 2910 Circuit Analysis I (3)	ECE 203 Circuit Analysis I (3)
ENGR 2915 Circuit Analysis II (3)	ECE 213 Circuit Analysis II (3)
	Following courses are completed at UNM and transferred to CNM and fulfill ENGR 2088 Engineering Elective credit:
ENGR 2088 Engineering Elective	ECE 206L Electrical Engineering Lab (2)
ENGR 2088 Engineering Elective	ECE 238L Computer Logic Design (4)
ENGR 2088 Engineering Elective	[1]ECE 300 Advanced Engineering Mathematics (4)
	**Will satisfy CNM MATH 2910 requirement*

Notes

[1] CNM Courses (MATH 2910, SOC 2235 for example) with upper division UNM counterparts/equivalents (course with 300+ course number) will transfer and satisfy UNM course requirement, but do not fulfill UNM course upper division requirement.

[2]IT 1010 (UNM - CS 150L) is not a requirement for any of the listed UNM Engineering B.S. programs. Students have the option of fulfilling the IT 1010 CNM requirement by utilizing the IC3 challenge exam or CLEP exam. For more

[3]To receive equivalent credit for UNM's CE 160L, student must complete both CNM's CM 1205 and CAD 1001.

The STEM UP grant is a Title V grant funded for five years in the amount of $3,473,005 by the Department of Education and authorized under Title III, Part F, Section 371 of the Higher Education Act of 1965 as amended, Hispanic Serving Institutions (HSI) STEM and Articulation Program Cooperative

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Electrical Engineering Curriculum Facts
CNM to UNM

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

Engineering

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

- 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.
- 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.
- MATH 2810 Applied Linear Algebra
  - MATH 2810 Applied Linear Algebra at CNM will satisfy UNM's MATH 314 Applied Linear Algebra with Applications, but will maintain lower level status and will not fulfill upper division degree requirements.
  - As of 2015, UNM School of Engineering Computer and Electrical engineering introduced a new course, ECE 300 (Advanced Engineering Mathematics). This is an upper division course at UNM.

Note: students at CNM may satisfy this course by completing both Math 2810 and Math 2910, but this applies only to students who declare Computer or Electrical Engineering degree only.

Electrical Engineering Departmental Requirements:

You must have completed at least 18 hours from the following list of courses, which must include MATH 1710 and 1715, with a minimum GPA of 2.50. Courses in which the grade was a C- or less are not acceptable toward admission to the program.

- MATH 162 (4) = MATH 1710 (4)
- MATH 163 (4) = MATH 1715 (4)
- CS 151L (3) = CSCI 1153 (4)
- PHYC 160 (3) = PHYS 1710 (4)
- PHYC 161 (3) = PHYS 1810 (4)
- PHYC 161L (1) = PHYS 1892 (1)
- CHEM 121/123L = CHEM 1710/1792 (4)
- ECE 203 (3) = ENGR 2910 (3)

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

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