

Course Articulation between New Mexico State University
and
Central New Mexico Community College

For students pursuing a bachelor of science degree in

SURVEYING ENGINEERING

Students wishing to begin their studies at the Community College before transferring to NMSU typically spend **four** semesters and may get an **A.S. in the Pre-Survey Engineering** program. This is typically followed by four to six semesters at NMSU. An advisor in Surveying Engineering should be consulted for all transfers. A complete description of the requirements for the degree may be found below and at the link:

<http://catalog.nmsu.edu/>

This agreement voids all previous agreements and is valid for students transferring to NMSU until modified by the parties.

Note (1): According to 5 NMAC 55.3 a set of 35 semester hours of standardized General Education (GE) common core classes in five areas of study may be taken at the Community College and transferred to NMSU in any department. To fulfill all of these requirements may require students to take additional classes beyond their **A.S.** degree.

Note (2): Math sequences may be taken at the Community College and a “math placement” exam will determine the students’ math level upon entering NMSU. It is strongly recommended that transferring students have at a minimum of Trigonometry to permit the easiest transition to NMSU College of Engineering – the more math the better!

Note (3): Residency requirement. The last 30 credits used to meet degree requirements must be taken at NMSU, of which at least 20 of these must be upper division.

Note (4): C or better grade requirement. The NMSU College of Engineering requires a C or better grade in all required lower division science, mathematics, engineering and engineering technology courses. This requirement applies to NMSU courses and all transfer courses.

Note (5): A total of 48 credits in upper division credits from a four year university or college must be taken to receive a degree from NMSU.

Courses which may be taken at Community College which will transfer to Surveying Engineering at NMSU are indicated in *blue italics* in the degree plan below:

DEGREE: Bachelor of Science in Surveying Engineering (Total Credits 130)

Students must take the Fundamentals of Surveying examination prior to graduation.

General Education Coursework (31 credits)

Area I: Communications electives.....	10
ENGL 111	4
<i>Appropriate approved class from this area for 3 cr. (ENGL 1101)</i>	
Writing elective (ENGL 218G recommended).....	3
<i>Appropriate approved class from this area for 3 cr. (ENGL 2219)</i>	
Speech elective (COMM 265 or COMM 256 recommended)	3
<i>Appropriate approved class from this area for 3 cr. (COMM 1130 or COMM 2221)</i>	

Area II: Mathematics (below requirements exceed GE requirements)

Area III: Laboratory Science (below requirements exceed GE requirements)

Area IV: Social/Behavior Sciences electives	6-9
ECON 251 or ECON 252 recommended	
<i>Appropriate approved class from this area for 3 cr. (ECON 2200 OR ECON 2201)</i>	
<i>Appropriate approved class from this area for 3 cr.</i>	

Area V: Humanities and Fine Arts elective.....	6-9
<i>Appropriate approved class from this area for 3 cr.</i>	
<i>Appropriate approved class from this area for 3 cr.</i>	

NOTE: Students are required to have a total of 15 credits from Area IV and Area V.

Viewing a Wider World electives.....	6
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Math and Science Courses (32 credits)

GEOL 111G, Survey of Geology, or G EN 160, Geology for Engineers	4
MATH 191, Calculus I.....	4
<i>MATH 1710 Calculus I</i>	
MATH 192, Calculus II	4
<i>MATH 1715 Calculus II</i>	
MATH 280, Linear Algebra	3
<i>MATH 2810 Applied Linear Algebra</i>	
PHYS 215, Engineering Physics I.....	3
<i>PHYS 1710 General Physics I</i>	
PHYS 215L, Engineering Physics I Lab	1
<i>PHYS 1792 General Physics I lab</i>	
PHYS 216 and 216L or PHYS 217 and 217L.....	4
STAT 371, Statistics for Engineers and Scientists I.....	3

Math or Science electives.....	8
Surveying Engineering Coursework (52 credits)	
SUR 222, Plane Surveying..... <i>CM 2205 Construction Surveying</i>	3
SUR 264, INTRODUCTION TO LIS <i>GIS 1006 Land Information Systems</i>	3
SUR 285, Photogrammetry	3
SUR 292, Public Land Survey System Boundaries <i>SUR 1015 Public Land Survey System Boundaries</i>	3
SUR 312, Legal Principles of Boundary Surveying	3
SUR 328, Principles and Practices of Construction Surveying	3
SUR 330, Computer Applications of Surveying.....	3
SUR 351, Introductory Survey Measurements, Analysis, and Adjustments	3
SUR 361, Introduction to Geodesy.....	3
SUR 370, Control Surveying	3
SUR 401, Ethics and Professionalism in Surveying and Mapping	3
SUR 412, Adv Topics in Boundary Surveying	3
SUR 450, Senior Project	1
SUR 451, Advanced Survey Measurements, Analysis, and Measurements	3
SUR 452, Land Development Design	3
SUR 461, Introduction to Satellite Geodesy.....	3
Engineering electives	6
Other Coursework (16 credits)	
SUR 101, Introduction to Surveying	1
<i>SUR 1001 Introduction to Surveying Engineering</i>	
DRFT 109, Computer Drafting Fundamentals	3
<i>CAD 1001 Basics of CAD</i>	
DRFT 153, Survey Drafting	3
<i>GIS 1005 CAD for GIS/Surveying</i>	
BLAW 316, Legal Environment of Business	3
CE 450, Engr Economy and Law, or IE 451 Engineering Economy	3

Computer programming elective (CS 167 recommended)

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*CIS 1284.Net I/Visual Basic or CIS 1275 C++ Programming I
or CIS 1250 Introduction to Python*