

# Central Community College (C C C) and University of Nebraska - Kearney (U N K)

Physics Comprehensive - Engineering Emphasis

Bachelor of Science

Catalog: 2019-2020 Date Revised: 10/16/19

Guided Pathway

C C C Course Number	C C C Course Title	C C C Required Credits	U N K Course Number	U N K Course Title	U N K Required Credits
<b>General Studies</b>					
<i>Foundational Core - Written Communication - Must take ENGL 1020</i>					
ENGL 1010	English Composition I	3	ENG 101	Introduction to Academic Writing	3
ENGL 1020	English Composition 2	3	ENG 102	Academic Writing and Research	3
<i>Foundational Core - Math - Must take MATH 1600</i>					
MATH 1150	College Algebra	3	MATH 102	College Algebra	3
MATH 1380	Trigonometry	3	MATH 103	Plane Trigonometry	3
MATH 1600	Analytic Geometry and Calculus I	5	MATH 115	Calculus I with Analytic Geometry	5
MATH 2000	Mathematics for Elementary Teachers	3	MATH 230	Math for Elementary Teachers I	3
MATH 2040	Applied Calculus	3	MATH 123	Applied Calculus I	3
MATH 2170	Applied Statistics	3	STAT 241	Elementary Statistics	3
<i>Foundational Core - Oral Communication - 3 credits required</i>					
SPCH 1110	Public Speaking	3	SPCH 100	Fundamentals of Speech Communication	3
SPCH 1400	Oral Communication	3	SPCH 100	Fundamentals of Speech Communication	3
<i>Foundational Core - Democracy in Perspective - 3 credits required</i>					
EDUC 1110	Introduction to Education	3	TE 100	Teaching in a Democratic Society	3
HUSR 1100	Introduction to Human and Social Services	3	SOWK 170	Introduction to Social Welfare	3
MART 1010	Mass Media	3	JMC 100	Global Media Literacy	3
<i>Portal Course - 3 credit hours required for General Studies credit. Students may take any course numbered 188 in any department to satisfy the portal requirement. Students are strongly encouraged to complete the Portal course requirement during their first or second semester at UNK. Students transferring in 24 or more hours of General Studies credit are exempt from taking the Portal.</i>					
<i>Distribution - Aesthetics - 3 credits required</i>					
ARTS 1010	Introduction to the Visual Arts	3	ART 120	Art Appreciation	3
ARTS 1250	Art Fundamentals	3	ART 100	Art Structure	3
MUSC 1010	Introduction to Music	3	MUS 100	Music Appreciation	3
MUSC 2730	History of Rock Music	3	MUS 107	Introduction to Rock and Blues	3
THEA 1010	Introduction to Theatre	3	THEA 120	Introduction to Theatre	3
<i>Distribution - Humanities - 6 credits required in two disciplines</i>					
ENGL 2100	Introduction to Literature	3	ENG 254	Introduction to Literature: Special Topics	3
ENGL 2340	American Literature	3	ENGL 251	Introduction to Literature: American Literature	3
ENGL 2370	Non-Western Literature	3	ENG 253	Intro to Literature: Non-Western Civilization	3
HIST 1000	Western Civilization to 1700	3	HIST 210	Western Civilization	3
HIST 1010	Western Civilization after 1700	3	HIST 211	Western Civilization	3
HIST 1700	World Civilization to 1500	3	HIST 212	Non-Western World History	3
HIST 1710	World Civilization after 1500	3	HIST 212	Non-Western World History	3
HIST 2010	American History I	3	HIST 250	American History	3
HIST 2020	American History 2	3	HIST 251	American History	3
HIST 2150	Introduction to Latin American	3	HIST 215	Introduction to Latin America	3
PHIL 1010	Introduction to Philosophy	3	PHIL 100	Introduction to Philosophy	3
SPAN 2010	Intermediate Spanish I	3	SPAN 200	Intermediate Spanish I	3
SPAN 2020	Intermediate Spanish 2	3	SPAN 201	Intermediate Spanish 2	3
<i>Distribution - Social Sciences - 6 credits required in two disciplines</i>					
ANTH 1100	Introduction to Anthropology	3	SOC 250	Anthropology	3
CRIM 1010	Introduction to Criminal Justice	3	CJUS 101	Introductions to Criminal Justice	3
ECON 1100	Economics Understanding	3	ECON 100	Contemporary Economic Issues	3

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ECON 2110	Principles of Macroeconomics	3	ECON 270	Principles of Economics, Macroeconomics	3
ECON 2120	Principles of Microeconomics	3	ECON 271	Principles of Economics, Microeconomics	3
GEOG 1400	Cultural Geography	3	GEOG 106	Human Geography	3
POLS 1000	American Government	3	PSCI 110	Introduction to American Politics	3
POLS 1600	International Relations	3	PSCI 168	Introduction to International Relations	3
PSYC 1010	Psychology of the Family	3	FAMS 351	Marriage and Family Relationships	3
PSYC 1810	Introduction to Psychology	3	PSY 203	General Psychology	3
PSYC 2890	Developmental Psychology	3	PSY 230	Human Development	3
SOCI 1010	Introduction to Sociology	3	SOC 100	Introduction to Sociology	3
SOCI 2150	Issues of Unity and Diversity	3	ETHS 124	Introduction to Ethnic Studies	3
SOCI 2160	Marriage and Family	3	FAMS 351	Marriage and Family Relationships	3
<i>Distribution - Natural Sciences - Must take PHYS 2110 and a 3 credit course in a different discipline</i>					
BIOS 1010	General Biology	4	BIOL 103	General Biology	4
BIOS 1060 + 1070	Environmental Science and Lab	3 + 1	PHYS 201	Earth Science	4
BIOS 1090	General Botany	4	BIOL 105	Biology 1	4
BIOS 1120	Principles Of Zoology	4	BIOL 106	Biology 2	4
BIOS 2460	Microbiology	4	BIOL 211	Human Microbiology	4
CHEM 1050	Elements Of Chemistry	4	CHEM 145	Introductory Chemistry	4
CHEM 1090	General Chemistry 1	4	CHEM 160 + 160L	General Chemistry and Lab	3 + 1
CHEM 1100	General Chemistry 2	4	CHEM 161 + 161L	General Chemistry and Lab	3 + 1
PHYS 1010	Earth Science	3	PHYS 201	Earth Science	4
PHYS 1100	Physical Science	4	PHYS 100 + 100L	Physical Science and Lab	3 + 1
PHYS 1410	General Physics 1	5	PHYS 205 + 205L	General Physics 1 and Lab	4 + 1
PHYS 1420	General Physics 2	5	PHYS 206 + 206L	General Physics 2 and Lab	4 + 1
PHYS 1500	Introduction to Physical Geography with Lab	4	GEOG 102	Physical Geography 2: The Lithosphere	4
PHYS 2010	Meteorology: Intro to Atmosphere	4	GEOG 209	Meteorology	3
PHYS 2110	General Physics 1 w/Calculus	5	PHYS 275 and 275L	General Physics 1 and Lab	4 + 1
PHYS 2120	General Physics 2 w/Calculus	5	PHYS 276 and 276L	General Physics 2 and Lab	4 + 1
<i>Distribution - Analytical and Quantitative Thought - Needs to take at UNK</i>					
BSAD 2170	Applied Statistics	3	MGT 233	Business Statistics	3
BTEC 1110	Computer and Internet Literacy	3	CSIT 108	Computer in Society	3
INFO 1100	Introduction to Information Technology and Sys	3	ITEC 150	Internetworking Literacy	3
INFO 1120	Microcomputer Applications	3	CYBR 182	Software Productivity Tools	3
INFO 1380	Technology in Society	3	CSIT 108	Computers in Society	3
INFO 1670	IT Essentials	3	ITEC 150	Internetworking Literacy	3
INFO 1700	Database Design Fundamentals	3	CSIT 100.3	Computer Enviroments:Database	1
INFO 1800	Visual Basic Programming	3	CSIT 111	Applied Computer Programming	3
INFO 2820	JAVA Programming	3	CYBR 103	Computer Science 1: Java for Software Develo	4
INFO 2830	C# Programming	3	CYBR 101	Computer Science 1: Python for Analytics	3
MATH 2170	Applied Statistics	3	STAT 241	Elementary Statistics	3
MUSC 1470	Music Theory I	3	MUS 200	Music Theory I	3
<i>Distribution - Wellness - 0 credits required</i>					
BSAD 1010	Consumer Problems	3	FAMS 160	Personal Money Management	3
NUTR 1470	Nutrition	3	FAMS 110	Introduction to Nutrition	3
PHED 1050	Physical Education - Walking and Jogging	1	PE 110	Basic Sports Activities	1
PHED 1400	Personal Health	3	PE 150	Healthy Wealthy and Wise	3
PSYC 2860	Abnormal Psychology	3	PSY 231	Abnormal Behavior and Society	3
<i>BS Science - related course requirements - 8 credits required</i>					
CHEM 1090	General Chemistry 1	4	CHEM 160 + 160L	General Chemistry and Lab	3 + 1
CHEM 1100	General Chemistry 2	4	CHEM 161 + 161L	General Chemistry and Lab	3 + 1
<i>1 credits required for unrestricted electives</i>					

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<i>Physics Comprehensive (Engineering Emphasis) Requirements</i>					
PHYS 2120	General Physics 2 w/Calculus	5	PHYS 276 and 276L	General Physics 2 and Lab	4 + 1
<i>Physics Comprehensive (Engineering Emphasis) Math Requirements</i>					
MATH 2070	Analytic Geometry and Calculus 2	5	MATH 202	Calculus 2 with Analytic Geometry	5
MATH 2080	Analytic Geometry and Calculus 3	5	MATH 260	Calculus 3	5
MATH 2210	Differential Equations	3	MATH 305	Differential Equations	3
Guided Pathways are suggested course selections but students should consult with their academic advisor and transfer institution for the most current program information. Course Equivalencies can be located at <a href="https://transfer.nebraska.edu/">https://transfer.nebraska.edu/</a> .					