

ENGINEERING FOUNDATIONS 2+2 (FOR UNL)

Offered by Department of Physics and (<http://catalog.unk.edu/undergraduate/departments-programs/physics-astronomy/>) Astronomy (<http://catalog.unk.edu/undergraduate/departments-programs/physics-astronomy/>)

UNK's Engineering Foundations (2+2) program is broadly designed to meet the College of Engineering requirements at UNL. Because requirements for specific engineering programs at UNL and other universities may vary, students should always consult with their advisors before registration.

Code	Title	Credit Hours
Engineering Foundations - Core Requirements for all 2+2 Programs		
CHEM 160 & 160L	General Chemistry and General Chemistry Laboratory	4
CYBR 102	Computer Science I: C for Security	3
ENGR 010	Freshman Engineering Seminar	0
ENGR 101	Introduction to Engineering	3
MATH 115	Calculus I with Analytic Geometry ¹	5
MATH 202	Calculus II with Analytic Geometry	5
MATH 260	Calculus III	5
MATH 305	Differential Equations	3
PHYS 275 & 275L	General Physics I (Calculus) and General Physics I (Calculus) Laboratory	5
PHYS 276 & 276L	General Physics II (Calculus) and General Physics II (Calculus) Laboratory	5
Code	Title	Credit Hours
Mechanical and Agricultural Engineering		
CHEM 161 & 161L	General Chemistry and General Chemistry Laboratory	4
ENG 102	Special Topics in Academic Writing and Research ²	3
ENGR 130	Computer Aided Drafting for Mechanical Engineering	3
ENGR 215	Engineering Circuits I (optional)	4
ENGR 223	Engineering Statics	3
ENGR 325	Mechanics of Materials	3
ENGR 373	Engineering Dynamics	3
SPCH 100	Fundamentals of Speech Communication	3
Code	Title	Credit Hours
Computer Engineering		
CSIT 100	Computing Environments	1
CYBR 103	Computer Science I: Java for Software Development	4
CYBR 150	Computer Science II: Object Oriented Programming	3

CYBR 180	Discrete Structures	3
CYBR 301	Computer Organization	3
CYBR 330	Algorithms and Data Structures	3
CYBR 404	Software Engineering	3
ENGR 215	Engineering Circuits I	4
ENGR 216	Engineering Circuits II	4
ITEC 290	Communicating Through Technology	3

Code	Title	Credit Hours
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Civil Engineering

ENG 102	Special Topics in Academic Writing and Research ²	3
ENGR 130	Computer Aided Drafting for Mechanical Engineering	3
ENGR 223	Engineering Statics	3
ENGR 325	Mechanics of Materials	3
ENGR 373	Engineering Dynamics	3
SPCH 100	Fundamentals of Speech Communication	3

Code	Title	Credit Hours
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Electrical Engineering

CHEM 161 & 161L	General Chemistry and General Chemistry Laboratory	3-4
or MATH 280	Linear Algebra	
or PHYS 346	Modern Physics I	
ENG 102	Special Topics in Academic Writing and Research ²	3
ENGR 130	Computer Aided Drafting for Mechanical Engineering	3
ENGR 215	Engineering Circuits I	4
ENGR 216	Engineering Circuits II	4
SPCH 100	Fundamentals of Speech Communication	3

¹

Students without sufficient background may have to begin with a lower level math class

²

ENG 101 and ENG 102 can be replaced by technical writing at UNL.