

Articulation Agreement

University of North Dakota and Benedictine College

Atchison, KS

Degree: Bachelor of Science in Mechanical Engineering

Major: MECHANICAL ENGINEERING

The following information was updated according to the 2013-2015 UND CATALOG - Students satisfactorily completing the courses below may transfer them to UND in fulfillment of the corresponding course requirements for this degree. Essential Studies equivalencies, courses, and major requirements may change. An official evaluation of transfer credit will be done upon admission to the university. Transfer credits will be evaluated and applied according to the current catalog and the approved Essential Studies list at the first semester of enrollment at UND.

Students planning to transfer to UND are encouraged to have phone or email contact with a UND adviser. Students may call the Advising Office at 1-800-CALL-UND ext. 3411 or 777-3411.

Note that 128 credits are required to graduate with a mechanical engineering degree from UND.

*PC 350 (4 credits) fulfills both EE 206 (3 credits) and ME 206 (1 credit) requirements.

BC		Course/Credits/Title	UND		Course/Credits/Title
<u>I. Communication - COM</u>					
En 101	3	English Composition	ENGL 110	3	College Composition I
En 326 or	3	Advanced Composition or	ENGL 130	3	College Comp II: Writing for Public Au
Eg 217	3	Technical Communications	ENGL 130	3	College Comp II: Writing for Public Au
<u>II. Social Science - SS</u>					
Eg 317	3	Engineering Economics	ENGR 460	3	Engineering Economics
Ph 325	3	Ethics	ChE 340	3	Professional Integrity in Engineering
Elective Credit	3	Elective Credit	Elective Credit	3	Elective Credit
<u>III. Arts and Humanities - FA/HUM</u>					
Elective Credit	9*	Credit from at least two depts.	Elective Credit	9*	Credit from at least two depts.
*must include 3 credits designated as Fine Arts and 3 credits designated as Humanities					
<u>IV. Mathematics, Science & Technology - MST</u>					
Ch 103/105	3/1	General Chemistry I/Lab	CHEM 121/L	3/1	Fundamentals of Chemistry I
Ch 104/106	3/1	General Chemistry II/Lab	CHEM 122/L	3/1	Fundamentals of Chemistry II
Ma 131	4	Calculus I	MATH 165	4	Calculus I
Ma 132	4	Calculus II	MATH 166	4	Calculus II
<u>Other Program Requirements</u>					
Ma 315	3	Probability and Statistics or	MATH 321	3	App. Stat. Methods
Eg 315	3	Statistical Data Analysis	MATH 321	3	App. Stat. Methods
Ma 233	4	Calculus III	MATH 265	4	Calculus III
Ma 310	3	Differential Equations	MATH 266	3	Intro to Differential Equations
Pc 210	4	Classical Physics I	PHYS 251/L	3/1	University Physics I

When choosing your Essential Studies (General Education) Courses in Communication, Social Science, Arts and Humanities, and Math, Science and Technology, you will need to consider how you will meet the special emphasis requirements. Courses listed above that meet a special emphasis requirement are marked as follows: Oral Communication requirement (O), Social-Cultural Diversity requirement: United States (U), Social-Cultural Diversity requirement: Global (G), Quantitative Reasoning requirement (Q), and Advanced Communication requirement (A). To learn more please go to <http://und.edu/academics/essential-studies> or check with your adviser.

All students-including transfers-are required to take an Essential Studies upper division Capstone (C) course at UND. Approved Capstone courses are taken in the senior year of a student's undergraduate program.

Additional classes will be required to earn the above degree; a minimum of 125 credits is required to graduate from UND. Transfer credit for courses other than those listed above will be evaluated on a course-by-course basis.

Pc 211	4	Classical Physics II	PHYS 252/L	3/1	University Physics II
Pc 320/321	3/1	Relativity & Atomic Physics/Lab	PHYS 253/L	3/1	University Physics III

Engineering Science

Cs 230	2	Prog. For Engrs/Scientists	ENGR 200	2	Comp Apps. In Engr
Eg 200	2	Computer Applications in Engineering	ENGR 200	2	Computer Applications in Engineering
Eg 230	3	Statics	ENGR 201	3	Statics
Eg 231	3	Dynamics	ENGR 202	3	Dynamics
Eg 320	3	Mechanics of Materials	ENGR 203	3	Mechanics of Materials

Other

Pc 350	4	Electronics	EE 206	3	Circuit Analysis/Lab
Pc 370	3	Electricity and Magnetism	Technical Elective	3	Technical Elective
Ee 206	3	Circuit Analysis	EE 206	3	Circuit Analysis
Eg 340	2	Engineering Laboratory I	Elective Credit	3	Materials/Manuf. Technical Elective
Eg 341	2	Engineering Laboratory II	Elective Credit	3	Thermal Systems Elective
Eg 415	3	Design of Engineering Experiments	Elective Credit	3	Technical Elective
Me 424	3	System Dynamics & Control	Elective Credit	3	Design Elective
Me 481	3	Vibration & Structural Dynamics	Elective Credit	3	Design Elective
Me 482	3	Intro to Finite Element Analysis	Elective Credit	3	Design Elective
Me 483	3	Nonlinear Dynamics & Chaos	Elective Credit	3	Design Elective
Me 484	3	Heating, Air Cond. & Ventilation	Elective Credit	3	Thermal Systems Elective
Me 485	3	Intermediate Thermodynamics	Elective Credit	3	Thermal Systems Elective
Me 486	3	Compressible Flow	Elective Credit	3	Thermal Systems Elective
Pc 460	3	Optics	Elective Credit	3	Technical Elective
Pc 480	3	Condensed Matter Physics	Elective Credit	3	Materials/Manuf. Technical Elective
Ph 325	3	Ethics	ChE 340	3	Professional Integrity in Engineering

Mechanical Engineering

Eg 325 or	3	Thermodynamics	ME 341	3	Thermodynamics
Pc 380	3	Thermodynamics	ME 341	3	Thermodynamics
Eg 110/122	3	Technical Drawing/Intro to Engr Design	ME 201	2	Student Design
Eg 120	2	Intro to Engineering	ME 101	3	Intro to Mechanical Engineering
Eg 330	3	Fluid Mechanics	ME 306	3	Fluid Mechanics
Eg 350	3	Properties of Materials	ME 301	3	Materials Science
Eg 360	4	Heat and Mass Transfer	ME 474	3	Fund of Heat and Mass Transfer
Me 322	3	Design of Machinery	ME 322	3	Design of Machinery
Me 418	1	Manufacturing Processes Lab	ME 418L	1	Manufacturing Processes Lab
Pc 350	3	Electronics	EE 206	3	Circuits

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