

Southwestern Community College

Associate of Arts (A.A.) or Associate of Science (A.S.)

Transfer guide to the University of Northern Iowa

Department of Applied Engineering & Technical Management

This document serves as a guide for students planning to complete an Associate of Arts (A.A.) or Associate of Science (A.S.) degree and transfer into one of the Department of Applied Engineering & Technical Management programs at UNI. Listed below are recommendations for electives that can be taken within an A.A. or A.S. curriculum, broken down by program.

Automation Engineering Technology

SWICC course	Course Title		UNI course	Course Title
MAT 156	Statistics	transfers as	STAT 1772	Intro to Statistical Methods
MAT 210 or	Calculus I	transfers as	MATH 1150 or	Calculus for Technology or
MAT 211			MATH 1420	Calculus I
PHY 162	College Physics I (& Lab)	transfers as	PHYSICS 1511	General Physics I

Construction Management

SWICC course	Course Title		UNI course	Course Title
ACC 142	Financial Accounting	transfers as	ACCT 2120	Principles of Financial
				Accounting
CHM 166	General Chemistry I (& Lab)	transfers as	CHEM 1020	Chemical Technology
ECN 110 or	Intro. to Economics or	transfers as		
ECN 120 or	Prin. of Macroeconomics or		ECON 1031	Intro to Economics
ECN 130	Prin. of Microeconomics			
MAT 156	Statistics	transfers as	STAT 1772	Intro to Statistical Methods
MAT 210 or	Calculus I	transfers as	MATH 1150 or	Calculus for Technology or
MAT 211			MATH 1420	Calculus I
PHY 162	College Physics I (& Lab)	transfers as	PHYSICS 1511	General Physics I

Electrical Engineering Technology

SWICC course	Course Title		UNI course	Course Title
MAT 128	Precalculus	transfers as	MATH 1140	Precalculus
MAT 156	Statistics	transfers as	STAT 1772	Intro to Statistical Methods
MAT 210 or	Calculus I	transfers as	MATH 1420	Calculus I
MAT 211				
PHY 162	College Physics I (& Lab)	transfers as	PHYSICS 1511	General Physics I

Manufacturing Engineering Technology

SWICC course	Course Title		UNI course	Course Title
CHM 166	General Chemistry I (& Lab)	transfers as	CHEM 1020	Chemical Technology
MAT 210 or	Calculus I	transfers as	MATH 1420	Calculus I
MAT 211				
PHY 162	College Physics I (& Lab)	transfers as	PHYSICS 1511	General Physics I

Materials Science & Engineering

SWICC course Course Title	UNI course	Course Title	
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CHM 166	General Chemistry I (& Lab)	transfers as	CHEM 1110	General Chemistry I
CHM 176	General Chemistry II (&	transfers as	CHEM 1120	General Chemistry II
	Lab)			_
MAT 210 or	Calculus I	transfers as	MATH 1420	Calculus I
MAT 211				
MAT 216	Calculus II	transfers as	MATH 1421	Calculus II
MAT 219	Calculus III	transfers as	MATH 2422	Calculus III
PHY 212	Classical Physics I (& Lab)	transfers as	PHYSICS 1701	Physics I for Science &
				Engineering
PHY 222	Classical Physics II (& Lab)	transfers as	PHYSICS 1702	Physics II for Science &
				Engineering

Materials Science Engineering Technology

SWICC course	Course Title		UNI course	Course Title
CHM 166	General Chemistry I (& Lab)	transfers as	CHEM 1110	General Chemistry I
CHM 176	General Chemistry II (&	transfers as	CHEM 1120	General Chemistry II
	Lab)			
MAT 210 or	Calculus I	transfers as	MATH 1420	Calculus I
MAT 211				
PHY 162	College Physics I (& Lab)	transfers as	PHYSICS 1511	General Physics I
PHY 172	College Physics II (& Lab)	transfers as	PHYSICS 1512	General Physics II

Mechanical Engineering Technology

SWICC course	Course Title		UNI course	Course Title
CHM 166	General Chemistry I (& Lab)	transfers as	CHEM 1110	General Chemistry I
MAT 210 or	Calculus I	transfers as	MATH 1420	Calculus I
MAT 211				
PHY 162	College Physics I (& Lab)	transfers as	PHYSICS 1511	General Physics I

Technology & Engineering Education

SWICC course	Course Title		UNI course	Course Title
CHM 166	General Chemistry I (& Lab)	transfers as	CHEM 1020	Chemical Technology
ECE 170 or	Child Growth &	transfers as	EDPSYCH 2030	Dynamics of Human
PSY 222	Development or			Development
	Child Psychology			
EDU 245	Exceptional Learner	transfers as	SPED 3150	Meeting the Needs of
				Diverse Learners
EDU 110	Exploring Teaching	transfers as	TEACHING 2017	Level 1 Field Experience
MAT 128	Precalculus	transfers as	MATH 1140	Precalculus
MAT 156	Statistics	transfers as	STAT 1772	Intro to Statistical Methods
PHY 162	College Physics I (& Lab)	transfers as	PHYSICS 1511	General Physics I

Technology Management

SWICC course	Course Title		UNI course	Course Title
CHM 166	General Chemistry I (& Lab)	transfers as	CHEM 1020	Chemical Technology
MAT 156	Statistics	transfers as	STAT 1772	Intro to Statistical Methods
PHY 162	College Physics I (& Lab)	transfers as	PHYSICS 1511	General Physics I