

**Northeast Iowa Community College
Calmar/Peosta**

**Associate of Science - Industrial Technology Teacher Education (AS)
Educational Plan
2015-2016**

Name: _____ Student ID # _____

Date: _____ Proposed 4 yr. Major: _____

Courses on this educational plan may not be offered every term or every academic year. Please discuss course availability with an academic advisor or faculty member.

DEGREE REQUIREMENTS

It is the student's responsibility to understand and complete the AS Degree requirements.

This program is a combination of an Associate of Science (AS) degree from NICC, Calmar, and a Bachelor of Arts (BA) degree from UIU, Fayette. A maximum of 60 credit hours to be completed at NICC, Calmar, and a minimum of 60 credit hours completed at UIU. Endorsement awarded for secondary education teaching in Industrial Technology.

GENERAL EDUCATION: 38 credit hours required

Both NICC and UIU offer general education courses. (These courses must be completed with a grade of C or better.)

Communication

(9 credit hours required, *including 3 credit hours of spoken communications)

<u>NICC Courses</u>	<u>Cr. Hrs</u>	<u>UIU Courses</u>	<u>Cr. Hrs</u>
___ SPC:112 Public Speaking * AND	3	___ COMM100 Public Speaking* AND	3
___ ENG:105 Composition I AND	3	___ ENG 101 Basic Composition OR	3
___ ENG:106 Composition II OR	3	___ ENG 201 Expository Writing OR	3
___ ENG:108 Composition II: Technical Writing	3	___ ENG 203 Writing for the Sciences	3

Computer Science and Mathematics

(6 credit hours required, including 3 Math credits and 3 Computer Science credits)

<u>NICC Courses</u>	<u>Cr. Hrs</u>	<u>UIU Courses</u>	<u>Cr. Hrs</u>
___ BCA:112 Intro. to Data Processing	3	___ MIS 101 Intro to Comp Apps	3
___ MAT:120 College Algebra (or higher-level)	3	___ MATH 105 Mathematical Concepts	3

Natural Sciences

(11 credit hours required, including 4 Biology credits and 4 Physics credits, both with a lab component)

<u>NICC Courses</u>	<u>Cr. Hrs</u>	<u>UIU Courses</u>	<u>Cr. Hrs</u>
___ PHY:162 College Physics I	4	___ PHY 111/112 Intro Physics I and Lab	4
___ BIO:125 Plant Biology	4	___ BIO 100/101 Biology and Lab	4
___ BIO:112 General Biology I	4	___ BIO 120 General Botany	4
___ BIO:183 Microbiology	3	___ BIO 110 General Zoology	4
___ BIO:184 Microbiology Lab	1	___ BIO 325 Plant Physiology	4
___ BIO 270 Human Anatomy and Phys.	4		

Social Sciences

(9 credit hours are required; selected courses are listed, other courses may satisfy requirement)

<u>NICC Courses</u>	<u>Cr. Hrs</u>	<u>UIU Courses</u>	<u>Cr. Hrs</u>
___ SOC:110 Introduction to Sociology	3	___ SOC 110 Principles of Sociology	3
___ HIS:131 World Civilization I	3	___ HIST 100 World Civ I	3
___ HIS:132 World Civilization II	3	___ HIST 101 World Civ II	3
___ HIS:151 U.S. History to 1877	3	___ HIST 110 American Civ I	3
___ HIS:152 U.S. History Since 1877	3	___ HIST 111 American Civ II	3
		___ EDU 142 Human Growth, Dev. and Guidance**	3

***This course is a required education core course and can also be counted as a Social Science course.*

Arts and Humanities

(6 credit hours required; selected courses are listed, other courses may satisfy requirement)

<u>NICC Courses</u>	<u>Cr. Hrs</u>	<u>UIU Courses</u>	<u>Cr. Hrs</u>
___ ART:101 Art Appreciation	3	___ ART 110 Drawing	3
___ ART:203 Art History I	3	___ ART 211 Art History I	3
___ ART:204 Art History: Renaissance, Present	3	___ ART 212 Art History II	3
___ LIT:186 Cultures through Literature	3	___ ENG 125 Intro to Lit	3
___ LIT:101 Introduction to Literature	3	___ MUS 100 Intro to Music	3
___ MUS:100 Music Appreciation	3	___ PHIL 150 Intro to Philosophy	3
___ PHI:101 Introduction to Philosophy	3	___ REL 120 Intro to Religion	3
___ REL:105 Introduction to Religion	3	___ SPN 101 Beginning Spanish I	3
___ PHI:105 Introduction to Ethics	3		
___ FLS:141 Elementary Spanish I	3		

Cultures

(3 credit hours required)

(none)

___ EDU 162 Diversity for Teachers ***	3
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***This course is a required education core course and can also be counted as a cultures course.

INSTITUTIONAL REQUIREMENTS: Northeast Iowa Community College

Technical Coursework Required in Five Areas:

1. Construction 2. Energy and Power 3. Graphic Communications 4. Manufacturing 5. Transportation

The Core courses satisfy the Department of Education requirement of six credits hours in each of three areas, at least one course in each of the five areas, and a minimum of 24 total credit hours.

Industrial Technology Core Courses

(35 - 37 credit hours)*

	<u>Cr. Hrs</u>
___ AGM:504 John Deere Welding	1
___ AUT:102 Introduction to Automotive Technology (Transportation) AND	1
___ AUT:405 Automotive Suspension and Steering (Transportation)	5
___ AUT:505 Automotive Brake Systems	5
___ CAD:172 Introduction to CAD: AutoCAD (Graphic Communications)	2
___ CIS:197 Fundamentals of Web Design	3
___ CON:113 Construction Print Reading (Graphic Communications)	2
___ CON:388 Basic Construction Skills	1.5
___ CON:391 Construction II	3
___ CON:393 Construction III	3
___ ELE:117 DC Theory (Energy and Power)	5
___ ELE:118 AC Theory (Energy and Power)	5
___ NET:266 CCNA Routing and Switching: Introduction to Networks	3

*Additional acceptable coursework for both core and concentration requirements will be determined by the Dean Career Technical.
Note: Students must obtain a grade point average of at least 2.50 in all Industrial Technology core and area concentration courses at NICC.

INDUSTRIAL TECHNOLOGY CONCENTRATION COURSES

(A minimum of 3 credit hours in ONE of the five areas is required)
(Recommended courses are listed for each area)

<u>Construction</u>	<u>Cr. Hrs.</u>
___ CON:398 Construction Lab I	2
___ CON:395 Construction Lab II	8.5
___ CON:396 Construction Lab III	7.5
___ ELE:146 Commercial-Residential Lab	6
<u>Energy and Power</u>	
___ ELE:135 Electrical Installation	5
___ ELE:148 Solid State Fundamentals	4
___ ELE:172 Fundamentals of Fluid Dynamics	3
___ ELE:193 Motor Repair	3
___ ELE:196 Motor Control Principles	4
<u>Graphic Communications</u>	
___ BCA:213 Intermediate Computer Business Applications	3
___ CIS:125 Introduction to Programming Logic w/Language	3
___ CIS:142 Computer Science	4
___ CIS:153 Data Structures	4
___ GIS:111 Introduction to Geographical Information Systems	3
<u>Manufacturing</u>	
___ WEL:228 Introduction Welding, Safety and Health of Welders: SENSE 1	1
___ WEL:429 Advanced Arc Welding (SMAW)	3.5
___ WEL:148 Intermediate Arc Welding (SMAW)	3
___ WEL:428 Advanced Gas Metal Arc Welding (GMAW) (Proposed CCN: WEL:428)	3
___ WEL:427 Basic Arc Welding (SMAW)	3
___ WEL:433 Basic Gas Metal Arc Welding	3.5
___ WEL:192 Gas Tungsten Arc Welding (Proposed C	4
___ WEL:435 Pipe Welding	3.5
___ WEL:119 Maintenance Welding	1
___ WEL:329 Shop Welding	1
___ WEL:330 Welding Fundamentals	1
<u>Transportation</u>	
___ AUT:168 Automotive Engine Repair	8
___ AUT:219 Automotive Automatic Transmissions/Transaxles Service	6
___ AUT:306 Automotive Manual Drive Train and Axles	6
___ AUT:505 Automotive Brake Systems	5
___ AUT:641 Automotive Electrical and Ignition Systems	6
___ AUT:706 Automotive Heating and Air Conditioning	6
___ AUT:824 Drivability and Emissions	8

INSTITUTIONAL REQUIREMENTS: Upper Iowa University

EDUCATION COURSE REQUIREMENTS

Cr. Hrs

___	EDU 110	Foundations of American Education	3
___	EDU 142	Human Growth, Development, and Guidance	3
___	EDU 152	Assessment and Psychology	3
___	EDU 162	Diversity for Teachers	3
___	EDU 207	Field Experience I: Secondary	2
___	EDU 227	Field Experience II: Secondary	2
___	EDU 233	Methods - Secondary Component	3
___	EDU 252	Computers and Instructional Technology	3
___	EDU 300-10	Teaching Secondary Industrial Technology	3
___	EDU 425	Content Area Literacy	3
___	EDU 462	Individual Behavior and Classroom Management	3
___	EDU 304	Exceptional Persons	3
___	EDU 493	Student Teaching in the Secondary School	<u>14</u>
		Total	48

NOTE: All courses in education at UIU must be completed with a grade of C or better in order to progress in the education major.

For those people who already possess an Iowa teaching license in another area, completion of a second teaching area in Industrial Technology includes the following requirements:

- 1) **Six semester hours** in each of **three** of the following areas:
Construction
Energy and Power
Graphic Communications
Manufacturing
Transportation
- 2) In addition to the 18 credit requirement above, you must complete **6 additional credits** chosen from the areas above, making sure that you have taken **at least one course in each of the five areas**.

Minimum total semester credits = 24

- 3) You must also complete a methods course for teaching secondary Industrial Technology. The Upper Iowa University course which fulfills this requirement is:
EDU 300-10 Teaching Secondary Industrial Technology (3 semester hours)

Transfer Credits Evaluated By: _____ Date: _____