Name: Date: 3/20/2024 ID:



## **Instrumentation & Control Technology**

Associate in Applied Science Unofficial Advisement Worksheet 2024-2025 Academic Year

Prescribed Technical Program Total	58
General Education Total	16
Total Degree Credits	74

Seme	Semester I (Fall only)							
Prescr	ibed Techi	nical Program Requirements						
ELEC	100	Direct Current Analysis		4				
ELEC	100L	Direct Current Analysis/Lab		1				
ELEC	118	Solid State Devices I		4				
ELEC	118L	Solid State Devices I/Lab		1				
ELEC	114	Digital Electronics I		3				
ELEC	114L	Digital Electronics I/Lab		1				
			Total Credits	14	•			

Seme	Semester II (Spring only)							
Prescr	ibed Techi	nical Program Requirements						
ELEC	130	Active Devices	4					
ELEC	130L	Active Devices/Lab	1					
ELEC	120	AC Analysis	4					
ELEC	120L	AC Analysis/Lab	1					
ELEC	115	Digital Electronics II	3					
ELEC	115L	Digital Electronics II/Lab	1					
		Ta	otal Credits 14					

Seme	Semester III (Fall or Summer only)						
Prescri	ibed Ted	chnical Program Requirements					
ICTL	205	Mechanical Practices (fall only)		4			
ICTL	205L	Mechanical Practices/Lab (On campus only: summer)		1			
ICTL	215	Instrument Drawings & Documentation (fall only)		4			
ICTL	215L	Instrument Drawings & Documentation/Lab (On campus only: summer)		1			
ICTL	225	Input & Output Devices (fall only)		4			
ICTL	225L	Input & Output Devices/Lab (On campus only: summer)		1			
			Total Credits	15			

Sem	ester IV	Completed		
Pres	cribed Ted	_		
ICTL	235	Motors & Controllers (spring only)	4	
ICTL	235L	Motors & Controllers/Lab (On campus only: summer)	1	
ICTL	245	Controls (spring only)	4	
ICTL	245L	Controls/Lab (On campus only: summer)	1	
ICTL	255	Automation Overview (spring only)	4	
ICTL	255L	Automation Overview/Lab (On campus only: summer)	1	
		Tota	al Credits 15	•

Genera	al Ed	Completed		
Arts & H	umani	ties/Social & Behavioral Sciences		
1.			3	
Business,	, Math	, Science & Technology (Two areas of study required)		
MATH	137	Applied Algebra (or higher)	3	
CIS	164	Networking Fundamentals (required)	4	
Commu	nicatio	ons I		
ENGL	110	College Composition I (required)	3	
Commun	icatio	ns II (Select one course)	3	
ENGL	120	College Composition II (Prerequisite: ENGL 110)		
ENGL	125	Intro to Professional Writing (Prerequisite: ENGL 110)		
COMM	110	Fundamentals of Public Speaking		
			16	
Digital Li	teracy	Requirement		
CSCI	101	Introduction to Computers*	3	
CIS	147	Principles of Information Technology*	3	

<sup>\*</sup>Courses approved to meet Digital Literacy Requirement of all degrees

<sup>\*</sup>Course listed as both General Education and Digital Literacy may satisfy both requirements.

# Associate of Applied Science General Education Requirements

**Preferred General Education courses highlighted** 

#### WRITTEN OR ORAL COMMUNICATIONS

**Transfer Course** 

/2 C*	codita)	FNC! 110	
	Cr.	- ENGL 110	
<u> </u>	3 -	ENGL 110	College Composition I
Trans	fer Cou	ırse	
(3 Cre	edits)	- ENGL 125, or	· COMM 110 (Select one)
<u> </u>	edits) Cr.	- ENGL 125, or	· COMM 110 (Select one)
<u> </u>		- ENGL 125, or ENGL 120	COMM 110 (Select one)  College Composition II
<u> </u>	Cr.	· ·	, ,

**ARTS & HUMANITES/SOCIAL & BEHAVIORAL SCIENCES** 

#### (3 Credits) Gr. Cr. Gr. Cr. 3 **ANTH 170** Physical Anthropology and Archeology 3 **GEOG 161** World Regional Geography 3 **ANTH 171** Introduction to Cultural Anthropology 3 **GEOG 262** Geography of North America **ART 110** Introduction to the Visual Arts 3 **HIST 101** Western Civilization I 3 **ART 122** Two-Dimensional Design **HIST 102** Western Civilization II 3 **ART 124** Three-Dimensional Design **HIST 103** United States to 1877 3 HIST 104 **ART 130** Drawing I United States Since 1877 3 **ART 210** Art History I **HIST 105** World Civilizations to 1500 3 **HIST 106** World Civilizations since 1500 **ART 211** Art History II 3 **HIST 220 ART 220** Painting I North Dakota History Painting II 3 **HIST 222** History of the Western Frontier **ART 221 ART 230** Drawing II 3 **HIST 224** American Studies I 3 **ART 250** Ceramics I **HIST 225** American Studies II **ART 251** Ceramics II 3 **HIST 226** Topics in History **ART 265** Sculpture I 1-3 **HIST 243** Historical Investigations **ART 266** Sculpture II 3 **HUMS 210 Integrated Cultural Studies CIS 280** Cyber Ethics 1-3 **HUMS 211 Integrated Cultural Excursion** CJ 201 Introduction to Criminal Justice 2 **HUMS 212 Integrated Cultural Enrichment COMM 112** Understanding Media and Social Change MUSC 100 Music Appreciation **COMM 211** Oral Interpretation 1 **MUSC 117** Concert Choir **COMM 212 Interpersonal Communications** 1 **MUSC 118 Chamber Choir COMM 214** Persuasive Speaking 1 **MUSC 121** String Ensemble **ECON 105** Elements of Economics Wind Ensemble **MUSC 132 ECON 201 Principles of Microeconomics MUSC 133** Woodwind Ensemble I **ECON 202** Principles of Macroeconomics **MUSC 134** Woodwind Ensemble II **ENGL 211** Introduction to Creative Writing **MUSC 135** Brass Ensemble I **ENGL 222** Introduction to Poetry **MUSC 136** Brass Ensemble II **ENGL 233 Fantasy and Science Fiction** 1 **MUSC 137** Jazz Ensemble **ENGL 236** Women and Literature **MUSC 138** Percussion Ensemble **ENGL 238** Children's Literature **MUSC 145 Applied Music ENGL 251 MUSC 146** British Literature I Applied Music - Major **ENGL 252** British Literature II **MUSC 201** World Music Introduction to Philosophy **ENGL 261** American Literature I **PHIL 101 ENGL 262 PHIL 210 Ethics** American Literature II **ENGL 278** Alternative Literature **PHIL 220** Introduction to Logic **PHIL 250** Philosophy in Cinema

### **BUSINESS, MATH, SCIENCE & TECHNOLOGY**

6 Cr	edits)	Must be sati	sfied with courses from two areas of stud	dy. Area of st	udy is based on	course prefix.
Gr. Cr.				Gr. Cr.		
	3	ACCT 200	Elements of Accounting I	3/1	<b>CHEM 112</b>	Introduction to Forensic Science/Lab
	3	ACCT 201	Elements of Accounting II	3/1	CHEM 114	Chemistry in Art/Lab
	3/1	ATSC 110	Meteorology/Lab		CHEM 115	Introductory Chemistry/Lab
	3	<b>BADM 202</b>	Principles of Management		CHEM 116	Intro to Organic and Biochemistry/Lab
	3	BADM 210	Advertising I		CHEM 121	General Chemistry I/Lab
	3	<b>BADM 240</b>	Sales		CHEM 122	General Chemistry II/Lab
	3	<b>BADM 281</b>	Organizational Behavior		CIS 147	Principles of Information Security
	3	<b>BADM 282</b>	Human Resource Management		CIS 164	Networking Fundamentals I
	1	BIOL 102	Introduction to Aquarium Keeping		CSCI 101	Introduction to Computers
	3	BIOL 109	The Living World	3	CSCI 122	Beginning Visual Basic
	3/1	BIOL 111	Concepts of Biology/Lab	4	CSCI 160	Computer Science I
	3/1	BIOL 115	Concepts of Anatomy & Physiology/Lab	4	CSCI 161	Computer Science II
	3	BIOL 124	Environmental Science	3/1	GEOG 121	Physical Geography/Lab
	3/1	BIOL 125	Introduction to Ecology/Lab	3/1	GEOL 102	Historical Geology/Lab
	3/1	BIOL 150	General Biology I/Lab	3/1	GEOL 105	Physical Geology/Lab
	3/1	BIOL 151	General Biology II/Lab	3	GIS 105	Fundamentals of GIS
	3/1	BIOL 170	General Zoology/Lab	3	GIS 107	GIS Applications
	3/1	BIOL 220	Anatomy and Physiology I/Lab	4	MATH 103	College Algebra
	3/1	BIOL 221	Anatomy and Physiology II/Lab	3	MATH 104	Finite Mathematics
	3/1	BOT 170	Plant Form and Diversity/Lab	2	MATH 105	Trigonometry
	3	BUSN 120	Fundamentals of Business	4	MATH 107	Pre-Calculus
	3/1	<b>CHEM 110</b>	Survey of Chemistry/Lab			

Transfer Courses Transfer Courses

## **DIGITAL LITERACY**

(3 Credits) Course listed as both general education and digital literacy may satisfy both requirements.

Gr. Cr.

3 CSCI 101 Introduction to Computers

3 CIS 147 Principles of Information Security

Bismarck State College Approved Training Course

<sup>\*</sup>This advising worksheet is unofficial and to be used for class planning purposes only. Please refer to the official catalog at http://catalog.bismarckstate.ed

Completed	Needed

	Com	pleted	Needed
Gr.	Cr.		
	3	PHIL 253	Environmental Ethics
	3	POLS 115	American Government
	3	POLS 116	State and Local Government
	3	POLS 220	International Politics
	3	POLS 240	Political Ideologies
	3	PSYC 100	Human Relations In Organizations
	3	PSYC 111	Introduction to Psychology
	3	PSYC 211	Introduction to Behavior Modification
	3	PSYC 250	Developmental Psychology
	3	PSYC 261	Psychology of Adjustment
	3	PSYC 270	Abnormal Psychology
	3	<b>RELS 120</b>	Religion in America
	3	RELS 201	Life and Letters of Paul
	3	RELS 203	World Religions
	3	<b>RELS 220</b>	Old Testament
	3	<b>RELS 230</b>	New Testament
	3	SOC 110	Introduction to Sociology
	3	SOC 115	Social Problems
	3	SOC 220	Family
	3	SOC 221	Minority Relations
	3	SOC 235	Cultural Diversity
	3	SOC 251	Gerontology
	3	SOC 252	Criminology
	3	SOC 275	American Indian Studies
	4	SPAN 101	First Year Spanish I
	4	SPAN 102	First Year Spanish II
	4	SPAN 201	Second Year Spanish I
	4	SPAN 202	Second Year Spanish II
	3	SWK 256	Development of Social Welfare
	3	THEA 110	Introduction to Theatre Arts
	3	THEA 161	Acting I
	3	THEA 180	Dramatic Literature and Style I
	3	THEA 181	Dramatic Literature and Style II
	3	THEA 261	Acting II

#### **Transfer Courses**

Co	mpleted	Needed
	mpicteu	
Gr. Cr.	NAATH 427	A call of Alaska
3	MATH 137	Applied Algebra
3	MATH 146	Applied Calculus I
4	MATH 165	Calculus I
3	MATH 210	Elementary Statistics
4	MATH 277	Mathematics for Elementary Teachers I
3/1	MICR 202	Introductory Microbiology/Lab
3	NUTR 240	Principles of Nutrition
3/1	PHYS 100	Concepts of Physics/Lab
3/1	PHYS 110	Introductory Astronomy/Lab
4/1	PHYS 211	College Physics I/Lab
4/1	PHYS 212	College Physics II/Lab
4/1	PHYS 251	University Physics I/Lab
4/1	PHYS 252	University Physics II/Lab
2/1	PLSC 110	World Food Crops/Lab
3/1	SCNC 101	Physical Science I/Lab
		(Biology & Chemistry)
3/1	SCNC 102	Physical Science II/Lab
		(Physics & Geology)
3/1	SCNC 103	Physical Science III/Lab
		(Astronomy & Meteorology)
2/1 *	SOIL 210	Introduction to Soil Science/Lab
	5512 210	Suddion to Son Science, Eds

### Transfer Courses

	Completed	Needed
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u/ for the complete listing of college degree requirements.