

## Instrumentation & Control Technology

Program Certificate
Degree Plan 2015-2016

Prescribed Technical Program Total	52
General Education Total	4
<b>Total Degree Credits</b>	56

Freshman Fall Semester							
Prescribed Technical Program Requirements							
ELEC	ELEC 100/100L Direct Current Analysis/Lab						
ELEC	118/118L	Solid State Devices I/Lab		5			
ELEC	ELEC 114/114L Digital Electronics I/Lab						
			Total Credits	14			
Fresh	ıman Spri	ng Semester					
	•	ng Semester al Program Requirements					
	bed Technica			5			
Prescri	bed Technica 130/130L	al Program Requirements		5 5			
Prescri ELEC	bed Technica 130/130L 120/120L	Active Devices/Lab		_			

Soph	omore	Fall Semester		
Prescri	ibed Techr	nical Program Requirements		
ICTL	205	Mechanical Practices		4
ICTL	215	Instrument Drawings & Documentation		4
ICTL	225	Input & Output Devices	_	4
			<b>Total Credits</b>	12
Soph	omore	Spring Semester		
Prescri	ibed Techr	nical Program Requirements		
ICTL	235	Motors & Controllers		4
ICTL	245	Controls		4
ICTL	255	Automation Overview	_	4
			<b>Total Credits</b>	12
Gene	eral Edu	cation Requirements		
(Select	4 credits of	general education credits in two areas of study.)		
1.				4
2.			_	•

## **Program Certificate**

Degree	Checklist	
	Earned a minimum of 15 institutional credit (BSC only)	Completed prescribed technical program requirements
	Earned a minimum 2.00 institutional GPA (BSC only)	Cleared all college obligations
	Earned a minimum 2.00 cumulative GPA (BSC + Transfer)	Filed an Application for Degree
	Earned a minimum 2.00 Prescribed Technical Program GPA	Programs containing 45 or more credits
		Earned a minimum of 4 credits of General Education from two areas of study
-Acaden	nic Skills Courses (ASC) do not apply toward graduation.	

## Legend

## **General Education Requirements**

Programs containing 45 or more credits must complete 4 credits of General Education from two areas of study.

(\*) Course not approved as GERTA

Gr. Cr.			Gr. C	r.		Gr. Cr.		
3 *	ACCT 200	Elements of Accounting I		3 ENGL 110	College Composition I	1	MUSC 145	Applied Music
3 *	ACCT 201	Elements of Accounting II		3 ENGL 120	College Composition II	1	MUSC 146	Applied Music - Major
3	ART 110	Introduction to the Visual Art		3 ENGL 12	Introduction to Professional Writing	3	* NUTR 240	Principles of Nutrition
3	ART 122	Two Dimensional Design		3 ENGL 21:	Introduction to Creative Writing	3	PHIL 101	Introduction to Philosophy
3	ART 124	Three Dimensional Design		3 ENGL 22:	I Introduction to Drama	3	PHIL 210	Ethics
3	ART 130	Drawing I		3 ENGL 22	2 Introduction to Poetry	3	PHIL 220	Introduction to Logic
3	ART 210	Art History I		3 ENGL 23	Fantasy & Science Fiction	3	PHIL 250	Philosophy in Cinema
3	ART 211	Art History II		3 ENGL 230	Women & Literature	3	* PHIL 253	Environmental Ethics
3	ART 220	Painting I		3 ENGL 23	Children's Literature	3/1	PHYS 100	Concepts of Physics/Lab
3	ART 221	Painting II		3 ENGL 25:	British Literature I	3/1	PHYS 110	Introduction to Astronomy/Lab
3	ART 230	Drawing II		3 ENGL 25	2 British Literature II	3/1	PHYS 211	College Physics I/Lab
3	ART 250	Ceramics I		3 ENGL 26:	L American Literature I	3/1	PHYS 212	College Physics II/Lab
3	ART 251	Ceramics II		3 ENGL 26	2 American Literature II	4/1	PHYS 251	University Physics I/Lab
2	ART 265	Sculpture I		3 ENGL 278	3 Alternative Literature	4/1	PHYS 252	University Physics II/Lab
2	ART 266	Sculpture II	3	/1 GEOG 12	1 Physical Geography/Lab	2/1	PLSC 110	World Food Crops/Lab
3/1	ASTR 150	Meteorology/Lab	3	/1 GEOL 10:	2 Historical Geology/Lab	3	POLS 115	American Government
3 *	BADM 202	Principles of Management	3	/1 GEOL 10!	Physical Geology/Lab	3	POLS 116	State & Local Government
3 *	BADM 210	Advertising I		3 GIS 105	Fundamentals of GIS	3	POLS 220	International Politics
3 *	BADM 240	Sales		3 * GIS 107	GIS Applications	3	PSYC 111	Introduction to Psychology
3 *	BADM 281	Organizational Behavior		3 HIST 101	Western Civilization I	3	* PSYC 211	Introduction to Behavior Modification
3 *	BADM 282	Human Resource Management		3 HIST 102	Western Civilization II	3	PSYC 250	Developmental Psychology
1 *	BIOL 102	Introduction to Aquarium Keeping		3 HIST 103	United States to 1877	3 *	* PSYC 261	Psychology of Adjustment
3	BIOL 109	Living World		3 HIST 104	United States since 1877	3	PSYC 270	Abnormal Psychology
3/1	BIOL 111	Concepts of Biology/Lab		3 HIST 220	North Dakota History	3	RELS 120	Religion in America
3/1	BIOL 115	Human Structure & Function/Lab		3 HIST 222	•	3	RELS 201	Life & Letters of Paul
3	BIOL 124	Environmental Science		3 HIST 224	American Studies I	3	RELS 203	World Religions
3/1	BIOL 126	Human Biology/Lab		3 HIST 225		3	RELS 220	Old Testament
3/1	BIOL 150	General Biology I/Lab	1	-3 * HIST 243	Historical Investigations	3	RELS 230	New Testament
3/1	BIOL 151	General Biology II/Lab		3 HUMS 21	.0 Integrated Cultural Studies	3/1	SCNC 101	Physical Science I/Lab
3/1	BIOL 220	Anatomy & Physiology I/Lab	1	-4 HUMS 21	1 Integrated Cultural Excursion			Biology & Chemistry
3/1	BIOL 221	Anatomy & Physiology II/Lab		2 HUMS 21	2 Integrated Cultural Enrichment	3/1	SCNC 102	Physical Science II/Lab
3/1	BIOL 250	Survey-Tropical Biology/Lab		4 MATH 10	College Algebra			Physics & Geology
3/1	BIOL 251	Community Ecology/Lab		3 MATH 10	4 Finite Math	3/1	<b>SCNC 103</b>	Physical Science III/Lab
								Astronomy & Meteorology

3/1	BOT 170	Plant Form & Diversity/Lab	2 MATH	H 105 Tri	gonometry	3	SOC 110	Introduction to Sociology
3	* BUSN 120	Fundamentals of Business	4 MATH	H 107 Pre	e-Calculus	3	SOC 115	Social Problems
3/1	<b>CHEM 110</b>	Survey of Chemistry/Lab	3 * MATH	H 137 Ap	plied Algebra	3	SOC 220	Family
3/1	<b>CHEM 112</b>	Introduction to Forensic Science/Lab	3 MATH	H 146 Ap	plied Calculus I	3	SOC 221	Minority Relations
3/1	<b>CHEM 114</b>	Chemistry in Art/Lab	4 MATH	H 165 Cal	lculus I	3	SOC 235	Cultural Diversity
4/1	<b>CHEM 115</b>	Introductory Chemistry/Lab	4 MATH	H 166 Ca	Iculus II	3	SOC 251	Gerontology
4/1	<b>CHEM 116</b>	Intro to Organic & Biochemistry/Lab	3 * MATH	H 208 Dis	screte Mathematics	3	SOC 252	Criminology
4/1	CHEM 121	General Chemistry I/Lab	3 MATH	H 210 Ele	mentary Statistics	3	SOC 275	American Indian Studies
4/1	CHEM 122	General Chemistry II/Lab	4 * MATH	H 277 Ma	ath for Elementary Teachers I	2/1 *	SOIL 210	Introduction to Soil Science/Lab
4	* CIS 164	Networking Fundamentals	3/1 MICR	202 Int	roductory Microbiology/Lab	4	SPAN 101	First Year Spanish I
3	CJ 201	Introduction to Criminal Justice	3 MUSC	C 100 Mu	usic Appreciation	4	SPAN 102	First Year Spanish II
3	COMM 110	Fundamentals of Public Speaking	1 MUSC	C 117 Co	ncert Choir	4	SPAN 201	Second Year Spanish I
	COMM 211	Oral Interpretation	1 MUSC	C 118 Ch	amber Choir	4	SPAN 202	Second Year Spanish II
3	* COMM 212	Interpersonal Communications	1 MUSC	C 121 Str	ing Ensemble	3	SWK 256	Development of Social Welfare
3	CSCI 101	Introduction to Computers	1 MUSC	C 132 Wi	nd Ensemble	3	THEA 110	Introduction to Theatre Arts
3	CSCI 122	Beginning Visual Basic	1 MUSC	C 133 Wo	oodwind Ensemble I	3	THEA 161	Acting I
4	CSCI 160	Computer Science I	1 MUSC	C 134 Wo	oodwind Ensemble II	3	THEA 261	Acting II
4	CSCI 161	Computer Science II	1 MUSC	C 135 Bra	ass Ensemble I			
3	ECON 105	Elements of Economics	1 MUSC	C 136 Bra	ass Ensemble II			
3	ECON 201	Principles of Microeconomics	1 MUSC	C 137 Jaz	z Ensemble			
3	ECON 202	Principles of Macroeconomics	1 * MUSC	C 138 Pe	rcussion Ensemble			
		Courses (ASC)						
	_	lls Courses (ASC), as well as Math 102, d credit and will not count toward the			need for college preparation w	vork before enrollm	ent in college	level courses. These courses will not
Gr. Cr.			Gr. Cr.					
2	ASC 082	Effective Reading	2 ASC 9	92 Ale	gebra Prep II			
3	ASC 087	College Writing Prep	2 ASC 9	-	gebra Prep III			
1	ASC 088	Composition Lab	3/1 ASC 0	•	sic Biology/Lab			
2	ASC 91	Algebra Prep I						
Advisor:			_					
Office:			_					
Phono								
Phone:			_					
Fmail:								