

## Nuclear Power Technology Program Certificate

#### 1st Semester (Fall Only) -Non-License Operator Track only **Prescribed Technical Program Requirements** NUPT 101 Overviw of Nuclear Energy 2 NUPT 103 **Nuclear Mathematics Fundamentals** 3 NUPT 105 **Classical Physics** 107 Engineering Drawings, Diagrams, Schematics NUPT 3 **Total Credits** 12

2nd Semester (Spring Only) - Non-License Operator Track							
Prescr	ibed Te	chnical Program Requirements					
NUPT	113	Mechanical Science	3				
NUPT	215	Nuclear Plant Chemistry	3				
NUPT	109	Electrical Science	4				
NUPT	213	Nuclear Physics	3				
		Total Credits	13				

3rd Semester (Fall Only) - Non-License Operator Track							
Prescribed Technical Program Requirements							
NUPT	217	Heat Transfer, Fluid Flow & Thermodynamics	4				
NUPT	111	Instrumentation & Control	4				
NUPT	221	Science of Radiological Protection	3				
NUPT	219	Material Science	3				
		Total Credits	14				

4th Semester (Spring Only) - Non-License Operator Track						
Prescri	ibed Tec	hnical Program Requirements				
NUPT	220	Reactor Theory	2			
NUPT	225	Nuclear Plant Sys. Comp., Design & Function	4			
NUPT	223	Reactor Safety Design	3			
NUPT	227	Conduct of Facility Operations	4			
		Total Credits	13			

### Non-License Operator Track

Prescribed Technical Program Total	52
General Education Total	4
Total Degree Credits	56

### Instrumentation & Control Track

Prescribed Technical Program Total	57
General Education Total	4
Total Degree Credits	61

1st Semester (Fall Only) -I&C Track								
Prescribed Technical Program Requirements								
NUPT	103	Nuclear Mathematics Fundamentals		3				
NUPT	105	Classical Physics		4				
NUPT	219	Material Science		3				
NUPT	221	Science of Radiological Protection		3				
			Total Credits	13				

2nd Se	emester	(Spring Only) - I&C Track		
Prescrib	oed Techr	ical Program Requirements		
NUPT	113	Mechanical Science		3
NUPT	215	Nuclear Plant Chemistry		3
NUPT	109	Electrical Science		4
NUPT	213	Nuclear Physics	_	3
			Total Credits	13

3rd Se	mester	(Fall Only) - I&C Track	
Prescrib	oed Techr	nical Program Requirements	
ICTL	215	Instrumentation Drawings & Documentation	4
NUPT	217	Heat Transfer, Fluid Flow & Thermodynamics	4
NUPT	111	Instrumentation & Control	4
ICTL	225	Input & Output Devices	4
		Total Credits	16

4th Se	mester	(Spring Only) - I&C Track	
Prescrit	bed Techn	ical Program Requirements	
ICTL	235	Motors & Controllers	4
NUPT	225	Nuclear Plant Sys. Comp., Design & Function	4
NUPT	223	Reactor Safety Design	3
NUPT	229	Instrumentation & Control II	4
		Total Credits	15

# General Education Requirements Select 4 credits of general education courses in 2 areas of study. 1. 4 2 Total Credits 4

# Program Certificate -Programs Containing 45 or more Prescribed Technical Program Requirements 2017-2018 Catalog

### **Degree Checklist**

Earned at least 15 semester hours of institutional credit from BSC

Minimum of 2.00 institutional GPA (BSC only)

Minimum of 2.00 cumulative GPA (BSC + Transfer)

Minimum of 2.00 GPA in a prescribed technical program

Earned a minimum of 4 semester hours of general education credit from two areas of study

Completed prescribed technical program requirements

Cleared all college obligations

Filed an Application for Degree in the Academic Records Office

Legend (\*) Course not approved as GERTA

### **General Education Requirements**

Programs containing 45 or more credits must complete 4 credits of general rducation from two areas of study.

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ir. Cr.			Gr. Cr.			Gr. Cr.	
3 *	ACCT 200	Elements of Accounting I	3	ENGL 110	College Composition I	1 MUSC 137	Jazz Ensemble
3 *	ACCT 201	Elements of Accounting II	3	ENGL 120	College Composition II	1 * MUSC 138	Percussion Ensemble
3	ART 110	Introduction to the Visual Arts	3	ENGL 125	Introduction to Professional Writing	1 MUSC 145	Applied Music
3	ART 122	Two-Dimensional Design	3	ENGL 211	Introduction to Creative Writing	1 MUSC 146	Applied Music - Major
3	ART 124	Three-Dimensional Design	3	ENGL 221	Introduction to Drama	3 * NUTR 240	Principles of Nutrition
3	ART 130	Drawing I	3	ENGL 222	Introduction to Poetry	3 PHIL 101	Introduction to Philosophy
3	ART 210	Art History I	3	ENGL 233	Fantasy and Science Fiction	3 PHIL 210	Ethics
3	ART 211	Art History II	3	ENGL 236	Women and Literature	3 PHIL 220	Introduction to Logic
3	ART 220	Painting I	3	ENGL 238	Children's Literature	3 PHIL 250	Philosophy in Cinema
3	ART 221	Painting II	3	ENGL 251	British Literature I	3 PHIL 253	Environmental Ethics
3	ART 230	Drawing II	3	ENGL 252	British Literature II	3/1 PHYS 100	Concepts of Physics/Lab
3	ART 250	Ceramics I	3	ENGL 261	American Literature I	3/1 PHYS 110	Introductory Astronomy/Lab
3	ART 251	Ceramics II	3	ENGL 262	American Literature II	3/1 PHYS 211	College Physics I/Lab
2	ART 265	Sculpture I	3	ENGL 278	Alternative Literature	3/1 PHYS 212	College Physics II/Lab
2	ART 266	Sculpture II	3/1	GEOG 121	Physical Geography/Lab	4/1 PHYS 251	University Physics I/Lab
3/1	ASTR 150	Meteorology/Lab	3	GEOG 161	World Regional Geography	4/1 PHYS 252	University Physics II/Lab
3 *	BADM 202	Principles of Management	3/1	GEOL 102	Historical Geology/Lab	2/1 PLSC 110	World Food Crops/Lab
3 *	BADM 210	Advertising I	3/1	<b>GEOL 105</b>	Physical Geology/Lab	3 POLS 115	American Government
3 *	BADM 240	Sales	3	GIS 105	Fundamentals of GIS	3 POLS 116	State and Local Government
3 *	BADM 281	Organizational Behavior	3	* GIS 107	GIS Applications	3 POLS 220	International Politics
3 *	BADM 282	Human Resource Management	3	HIST 101	Western Civilization I	3 PSYC 111	Introduction to Psychology
1 *	BIOL 102	Introduction to Aquarium Keeping	3	HIST 102	Western Civilization II	3 * PSYC 211	Introduction to Behavior Modification
3	BIOL 109	The Living World	3	HIST 103	United States to 1877	3 PSYC 250	Developmental Psychology
3/1	BIOL 111	Concepts of Biology/Lab	3	HIST 104	United States since 1877	3 * PSYC 261	Psychology of Adjustment
3/1	BIOL 115	Human Structure and Function/Lab	3	HIST 211	World Civilizations to 1500	3 PSYC 270	Abnormal Psychology
3	BIOL 124	Environmental Science	3	HIST 212	World Civilizations since 1500	3 RELS 120	Religion in America
3/1	BIOL 125	Introduction to Ecology/Lab	3	HIST 220	North Dakota History	3 RELS 201	Life and Letters of Paul
3/1	BIOL 126	Human Biology/Lab	3	HIST 222	History of the Western Frontier	3 RELS 203	World Religions
3/1	BIOL 150	General Biology I/Lab	3	HIST 224	American Studies I	3 RELS 220	Old Testament
3/1	BIOL 151	General Biology II/Lab	3	HIST 225	American Studies II	3 RELS 230	New Testament
3/1	BIOL 220	Anatomy and Physiology I/Lab	1-3	* HIST 243	Historical Investigations	3/1 SCNC 101	Physical Science I/Lab
3/1	BIOL 221	Anatomy and Physiology II/Lab	3	HUMS 210	Integrated Cultural Studies		(Biology & Chemistry)
3/1	BIOL 250	Survey of Tropical Biology/Lab	1-4	HUMS 211	Integrated Cultural Excursion	3/1 SCNC 102	Physical Science II/Lab
	BOT 170	Plant Form and Diversity/Lab	2	HUMS 212	Integrated Cultural Enrichment	·	(Physics & Geology)

3 *	BUSN 120	Fundamentals of Business	4	MATH 103	College Algebra	3/1	SCNC 103	Physical Science III/Lab
3/1	CHEM 110	Survey of Chemistry/Lab	3	MATH 104	Finite Mathematics			(Astronomy & Meteorology)
3/1	CHEM 112	Introduction to Forensic Science/Lab	2	MATH 105	Trigonometry	3	SOC 110	Introduction to Sociology
3/1	CHEM 114	Chemistry in Art/Lab	4	MATH 107	Pre-Calculus	3	SOC 115	Social Problems
4/1	CHEM 115	Introductory Chemistry/Lab	3	* MATH 137	Applied Algebra	3	SOC 220	Family
4/1	CHEM 116	Intro to Organic and Biochemistry/Lab	3	MATH 146	Applied Calculus I	3	SOC 221	Minority Relations
4/1	CHEM 121	General Chemistry I/Lab	4	MATH 165	Calculus I	3	SOC 235	Cultural Diversity
4/1	CHEM 122	General Chemistry II/Lab	4	MATH 166	Calculus II	3	SOC 251	Gerontology
4 *	CIS 164	Networking Fundamentals I	3	* MATH 208	Discrete Mathematics	3	SOC 252	Criminology
3	CJ 201	Introduction to Criminal Justice	3	MATH 210	Elementary Statistics	3	SOC 275	American Indian Studies
3	COMM 110	Fundamentals of Public Speaking	4	* MATH 277	Math for Elementary Teachers I	2/1 *	SOIL 210	Introduction to Soil Science/Lab
3	COMM 112	Understanding Media and Social Change	3/1	MICR 202	Introductory Microbiology/Lab	4	SPAN 101	First Year Spanish I
3	COMM 211	Oral Interpretation	3	MUSC 100	Music Appreciation	4	SPAN 102	First Year Spanish II
3	COMM 212	Interpersonal Communications	1	MUSC 117	Concert Choir	4	SPAN 201	Second Year Spanish I
3	CSCI 101	Introduction to Computers	1	MUSC 118	Chamber Choir	4	SPAN 202	Second Year Spanish II
3	CSCI 122	Beginning Visual Basic	1	MUSC 121	String Ensemble	3	SWK 256	Development of Social Welfare
4	CSCI 160	Computer Science I	1	MUSC 132	Wind Ensemble	3	THEA 110	Introduction to Theatre Arts
4	CSCI 161	Computer Science II	1	MUSC 133	Woodwind Ensemble I	3	THEA 161	Acting I
3	ECON 105	Elements of Economics	1	MUSC 134	Woodwind Ensemble II	3	THEA 261	Acting II
3	ECON 201	Principles of Microeconomics	1	MUSC 135	Brass Ensemble I			
3	ECON 202	Principles of Macroeconomics	1	MUSC 136	Brass Ensemble II			
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Transfer Course			Transfer Co	ourse		Transfer Cou	rse	

### Academic Skills Courses (ASC)

The following Academic Skills Courses (ASC) are pre-college courses that indicate the need for college preparation work before enrollment in college level courses. These courses will not fulfill general education requirements, institutional credit requirements and cannot be included in the semester hours required for a Program Certificate.

Gr.	Cr.			Gr.	Cr.		
	2	ASC 082	Effective Reading		2	ASC 94	College Writing Prep I
	3	ASC 087	College Writing Prep		2	ASC 95	College Writing Prep II
	1	ASC 088	Composition Lab		2	ASC 96	College Writing Prep III
	2	ASC 91	Algebra Prep I		3/1	ASC 098	Basic Biology/Lab
	2	ASC 92	Algebra Prep II		-		
	2	ASC 93	Algebra Prep III				

Advisor:	
Office:	
Phone:	
Email:	

\*This advising worksheet is unofficial and to be used for class planning purposes only. Please refer to the official catalog at http://catalog.bismarckstate.edu/ for the complete listing of college degree requirements.