Bismarck State College
National Energy Center of Excellence
Electrical Transmission Systems Technology Educational Plan

Name:_____ **Date:**_____

The educational plan is a list of courses that students need to complete prior to obtaining their Associate in Applied Science Degree. Students are responsible to contact their advisor if they have any questions.

	Approx. Time to Complete Program	Total Credits Required	ETST Technical Credits Required	General Ed. Credits Required
A.A.S. Degree	2 years	66	51	15
Program Certificate	1 1/2 years	55	51	4

Note: The word "credits" in these titles equals semester credit hours.

Semester I:	**Tech Credits**	**Completed**
ETST 240 Power Industry Concepts	**3**	
ETST 242 Applied Mathematics for System Operators	**2**	
ENRT 106 DC Fundamentals	**2**	
ENRT 108 AC Fundamentals	**3**	
ETST 250 Electrical Generation Theories	**4**	
ETST 254 System Elements I – Substations	**3**	
Total – 1st semester	**17**	
Semester II:	**Tech Credits**	**Completed**
ETST 256 System Elements II – Transformers	**3**	
ETST 258 System Elements III – Protective Relaying	**3**	
ETST 260 Electrical Diagram Interpretation	**2**	
ETST 262 Power System Operations	**3**	
ETST 266 Interconnected System Operations	**3**	
ETST 268 Power Flow	**3**	
Total – 2nd semester	**17**	
Semester III:	**Tech Credits**	**Completed**
ETST 270 System Operator Work Practices	**3**	
ETST 272 Power System Safety	**3**	
ETST 274 Communication & Control Technology	**2**	
ETST 276 Power System Economics	**3**	
ETST 278 Power System Emergency	**3**	
ETST 280 Reliability Policies & Procedures	**3**	
Total – 3rd semester	**17**	
Total Technical Credits	**51**	

In addition to the energy courses, 15 general education credits are required for the AAS degree:

General Education Online Classes for Associate in Applied Science degrees

Communications (6 credits)

ENGL 110	College Composition I **(REQUIRED)**	3 credits	
ENGL 120	College Composition II (ENGL 110 prerequisite)	3 credits	
ENGL 125	Intro to Professional Writing(ENGL 110 prerequisite)	3 credits	
COMM 110	Fund of Public Speaking	3 credits	

Arts and Humanities/Social and Behavioral Sciences (3 credits)

Art 110	Intro to Visual Arts	3 credits	
ENGL 278	Alternative Literature	3 credits	
HIST 104	United States Since 1877	3 credits	
HUMS 210	Integ Cultural Studies	3 credits	
MUSC 100	Music Appreciation	3 credits	
PHIL 101	Intro to Philosophy	3 credits	
PHIL 210	Ethics	3 credits	
CJ 201	Intro to Criminal Justice	3 credits	
ECON 201	Principles of Microeconomics	3 credits	
ECON 202	Principles of Macroeconomics	3 credits	
POLS 116	State and Local Government	3 credits	
PSYC 111	Intro to Psychology	3 credits	
SOC 110	Intro to Sociology	3 credits	
SOC 115	Social Problems	3 credits	
SOC 220	Family	3 credits	
SOC 235	Cultural Diversity	3 credits	
SOC 252	Criminology	3 credits	
SOC 275	Native American Studies	3 credits	
SWK 256	Develop of Social Welfare	3 credits	

Business, Math, Science and Technology (6 credits in any two areas of study)

For example, enroll in a math and an accounting course, but not two accounting courses or two math courses.

ACCT 200	Elements of Accounting I	3 credits	
ACCT 201	Elements of Accounting II	3 credits	
BIOL 111	Concepts of Biology/lab	3/1 credits	
BIOL 124	Environmental Science	3 credits	
BUSN 120	Fund of Business	3 credits	
BADM 202	Principles of Management	3 credits	
BADM 240	Sales	3 credits	
BADM 281	Organizational Behavior	3 credits	
BADM 282	Human Resource Mgmt	3 credits	
CSCI 101	Introduction to Computers	3 credits	
CSCI 122	Beginning/Visual Basic	3 credits	
CSCI 160	Computer Science I	3 credits	
MATH 102	Intermediate Algebra	3 credits	
MATH 103	College Algebra	4 credits	
MATH 210	Elementary Statistics	3 credits	
NUTR 240	Princ of Nutrition	3 credits	

Academic Skills Courses (ASC) Courses with numbers below 100 are considered college prep courses and do not apply toward graduation credits.

ASC 087	College Writing Prep	3 credits	
ASC 088	Composition Lab	1 credit	

ASC 089	Composition Lab	1 credit	

Graduation requirements for the following educational plans in Electrical Transmission Systems Technology

Associate in Applied Science in Electrical Transmission Systems Technology (66 semester credit hours)

- Complete 51 semester credits of technical core courses in Electrical Transmissions Systems Technology
- Complete 15 semester credits of general education
- Complete at least 15 semester credit hours from Bismarck State College
- Achieve a minimum 2.00 grade point average (C average) in
    - At least 60 semester credit hours less the semester credit hours given for CLEP examinations, military training and life experience
    - All of your Electrical Transmissions Systems Technology courses
    - All credits from Bismarck State College

NOTE: CLEP examinations, military training and life experience credits are given a grade of satisfactory and do not change your grade point average.

- Clear all college obligations
- Submit an Application for Graduation at the beginning of the term which you expect to graduate.

Program Certificate (55 semester credit hours)

- Complete 51 semester credits of technical core courses of Electrical Transmissions Systems Technology
- Complete 4 semester credits of general education from any two areas of study
- Complete at least 15 semester credit hours from Bismarck State College
- Achieve a minimum 2.00 grade point average (C average) in
    - All of your Electrical Transmissions Systems Technology courses
    - All credits from Bismarck State College
- Clear all college obligations
- Submit an Application for Graduation at the beginning of the term which you expect to graduate.

Contact us:

1-800-852-5685 or 701-224-5651

www.bismarckstate.edu/energy