



Instrumentation & Control Technology

Program Certificate

Advising Worksheet* 2020-2021

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

Freshman Fall Semester

Prescribed Technical Program Requirements

| | | | |
|----------------------|----------|-----------------------------|-----------|
| ELEC | 100/100L | Direct Current Analysis/Lab | 5 |
| ELEC | 118/118L | Solid State Devices I/Lab | 5 |
| ELEC | 114/114L | Digital Electronics I/Lab | 4 |
| Total Credits | | | 14 |

Freshman Spring Semester

Prescribed Technical Program Requirements

| | | | |
|----------------------|----------|----------------------------|-----------|
| ELEC | 130/130L | Active Devices/Lab | 5 |
| ELEC | 120/120L | AC Analysis/Lab | 5 |
| ELEC | 115/115L | Digital Electronics II/Lab | 4 |
| Total Credits | | | 14 |

Sophomore Fall Semester

Prescribed Technical Program Requirements

| | | | |
|----------------------|-----|-------------------------------------|-----------|
| ICTL | 205 | Mechanical Practices | 4 |
| ICTL | 215 | Instrument Drawings & Documentation | 4 |
| ICTL | 225 | Input & Output Devices | 4 |
| Total Credits | | | 12 |

Sophomore Spring Semester

Prescribed Technical Program Requirements

| | | | |
|----------------------|-----|----------------------|-----------|
| ICTL | 235 | Motors & Controllers | 4 |
| ICTL | 245 | Controls | 4 |
| ICTL | 255 | Automation Overview | 4 |
| Total Credits | | | 12 |

General Education Requirements

Complete 4 credits of general education in any two areas of study.

| | |
|----|---|
| 1. | 2 |
| 2. | 2 |

*Unofficial advising worksheet used for planning purposes only

Program Certificate - Programs Containing 45 or more Prescribed Technical Program Requirements

Degree Checklist

- | | | | |
|--------------------------|--|--------------------------|---|
| <input type="checkbox"/> | Satisfied all degree seeking admission requirements | <input type="checkbox"/> | Cleared all college obligations |
| <input type="checkbox"/> | Completed a prescribed technical program | <input type="checkbox"/> | Filed an Application for Degree in the Academic Records Office immediately following enrollment in final semester |
| <input type="checkbox"/> | Earned at least 15 semester hours of institutional credit from BSC | | |
| <input type="checkbox"/> | Minimum of 2.00 GPA in a prescribed technical program | | Specific programs may require additional degree/program requirements; refer to your program. |
| <input type="checkbox"/> | Minimum of 2.00 institutional GPA (BSC only) | | |
| <input type="checkbox"/> | Minimum of 2.00 cumulative GPA (BSC + Transfer) | | |
| <input type="checkbox"/> | Earned a minimum of 4 semester hours of general education credit from two areas of study | | |

Legend

(*) Course not approved as GERTA

General Education Requirements

Programs containing 45 or more credits must complete 4 credits of general education from two areas of study. Area of study is based on course prefix.

| Gr. | Cr. | | Gr. | Cr. | | Gr. | Cr. | |
|-----|-----|----------|-----|------------|---|-----|------------|---|
| 3 | * | ACCT 200 | 3/1 | BIOL 151 | General Biology II/Lab | 3 | ENGL 125 | Introduction to Professional Writing |
| 3 | * | ACCT 201 | 3/1 | BIOL 170 | General Zoology/Lab | 3 | ENGL 211 | Introduction to Creative Writing |
| 3 | | ANTH 170 | 3/1 | BIOL 220 | Anatomy and Physiology I/Lab | 3 | ENGL 221 | Introduction to Drama |
| 3 | | ANTH 171 | 3/1 | BIOL 221 | Anatomy and Physiology II/Lab | 3 | ENGL 222 | Introduction to Poetry |
| 3 | | ART 110 | 3/1 | BIOL 250 | Survey of Tropical Biology/Lab | 3 | ENGL 233 | Fantasy and Science Fiction |
| 3 | | ART 122 | 3/1 | BOT 170 | Plant Form and Diversity/Lab | 3 | ENGL 236 | Women and Literature |
| 3 | | ART 124 | 3 | * BUSN 120 | Fundamentals of Business | 3 | ENGL 238 | Children's Literature |
| 3 | | ART 130 | 3/1 | CHEM 110 | Survey of Chemistry/Lab | 3 | ENGL 251 | British Literature I |
| 3 | | ART 210 | 3/1 | CHEM 112 | Introduction to Forensic Science/Lab | 3 | ENGL 252 | British Literature II |
| 3 | | ART 211 | 3/1 | CHEM 114 | Chemistry in Art/Lab | 3 | ENGL 261 | American Literature I |
| 3 | | ART 220 | 4/1 | CHEM 115 | Introductory Chemistry/Lab | 3 | ENGL 262 | American Literature II |
| 3 | | ART 221 | 4/1 | CHEM 116 | Intro to Organic and Biochemistry/Lab | 3 | ENGL 278 | Alternative Literature |
| 3 | | ART 230 | 4/1 | CHEM 121 | General Chemistry I/Lab | 3/1 | GEOG 127 | Physical Geography/Lab |
| 3 | | ART 250 | 4/1 | CHEM 122 | General Chemistry II/Lab | 3 | GEOG 161 | World Regional Geography |
| 3 | | ART 251 | 3 | * CIS 147 | Principles of Information Security | 3/1 | GEOG 102 | Historical Geography/Lab |
| 2 | | ART 265 | 4 | * CIS 164 | Networking Fundamentals I | 3/1 | GEOG 105 | Physical Geography/Lab |
| 2 | | ART 266 | 3 | * CIS 280 | Cyber Ethics | 3 | GIS 105 | Fundamentals of GIS |
| 3/1 | | ASTR 150 | 3 | CJ 201 | Introduction to Criminal Justice | 3 | * GIS 107 | GIS Applications |
| 3 | * | BADM 202 | 3 | COMM 110 | Fundamentals of Public Speaking | 3 | HIST 101 | Western Civilization I |
| 3 | * | BADM 210 | 3 | COMM 112 | Understanding Media and Social Change | 3 | HIST 102 | Western Civilization II |
| 3 | * | BADM 240 | 3 | COMM 113 | Oral Interpretation | 3 | HIST 103 | United States to 1877 |
| 3 | * | BADM 281 | 3 | COMM 212 | Interpersonal Communications | 3 | HIST 104 | United States Since 1877 |
| 3 | * | BADM 282 | 3 | CSCI 101 | Introduction to Computers | 3 | HIST 211 | World Civilizations to 1500 |
| 1 | * | BIOL 102 | 3 | CSCI 122 | Beginning Visual Basic | 3 | HIST 212 | World Civilizations since 1500 |
| 3 | | BIOL 109 | 4 | CSCI 160 | Computer Science I | 3 | HIST 220 | North Dakota History |
| 3/1 | | BIOL 111 | 4 | CSCI 161 | Computer Science II | 3 | HIST 222 | History of the Western Frontier |
| 3/1 | | BIOL 115 | 3 | ECON 105 | Elements of Economics | 3 | HIST 224 | American Studies I |
| 3 | | BIOL 124 | 3 | ECON 201 | Principles of Microeconomics | 3 | HIST 225 | American Studies II |
| 3/1 | | BIOL 125 | 3 | ECON 202 | Principles of Macroeconomics | 1-3 | * HIST 243 | Historical Investigations |
| 3/1 | | BIOL 126 | 3 | ENGL 110 | College Composition I | 3 | HUMS 210 | Integrated Cultural Studies |
| 3/1 | | BIOL 150 | 3 | ENGL 120 | College Composition II | | | |
| 1-4 | | HUMS 211 | 3 | PHIL 101 | Introduction to Philosophy | 3/1 | SCNC 102 | Physical Science II/Lab (Physics & Geology) |
| 2 | | HUMS 212 | 3 | PHIL 210 | Ethics | 3/1 | SCNC 103 | Physical Science III/Lab (Astronomy & Meteorology) |
| 4 | | MATH 103 | 3 | PHIL 220 | Introduction to Logic | | | |
| 3 | | MATH 104 | 3 | PHIL 250 | Philosophy in Cinema | | | |
| 2 | | MATH 105 | 3 | PHIL 253 | Environmental Ethics | 3 | SOC 110 | Introduction to Sociology |
| 4 | | MATH 107 | 3/1 | PHYS 100 | Concepts of Physics/Lab | 3 | SOC 115 | Social Problems |
| 3 | * | MATH 137 | 3/1 | PHYS 110 | Introductory Astronomy/Lab | 3 | SOC 220 | Family |
| 3 | | MATH 146 | 4/1 | PHYS 211 | College Physics I/Lab | 3 | SOC 221 | Minority Relations |
| 4 | | MATH 165 | 4/1 | PHYS 212 | College Physics II/Lab | 3 | SOC 235 | Cultural Diversity |
| 4 | | MATH 166 | 4/1 | PHYS 251 | University Physics I/Lab | 3 | SOC 251 | Gerontology |
| 3 | * | MATH 208 | 4/1 | PHYS 252 | University Physics II/Lab | 3 | SOC 252 | Criminology |
| 3 | | MATH 210 | 2/1 | PLSC 110 | World Food Crops/Lab | 3 | SOC 275 | American Indian Studies |
| 4 | * | MATH 277 | 3 | POLS 115 | American Government | 2/1 | * SOIL 210 | Introduction to Soil Science/Lab |
| 3/1 | | MICR 202 | 3 | POLS 116 | State and Local Government | 4 | SPAN 101 | First Year Spanish I |
| 3 | | MUSC 100 | 3 | POLS 220 | International Politics | 4 | SPAN 102 | First Year Spanish II |
| 1 | | MUSC 117 | 3 | PSYC 100 | Human Relations in Organizations | 4 | SPAN 201 | Second Year Spanish I |
| 1 | | MUSC 118 | 3 | PSYC 111 | Introduction to Psychology | 4 | SPAN 202 | Second Year Spanish II |
| 1 | | MUSC 121 | 3 | * PSYC 211 | Introduction to Behavior Modification | 3 | SWK 256 | Development of Social Welfare |
| 1 | | MUSC 132 | 3 | PSYC 250 | Developmental Psychology | 3 | THEA 110 | Introduction to Theatre Arts |
| 1 | | MUSC 133 | 3 | * PSYC 261 | Psychology of Adjustment | 3 | THEA 161 | Acting I |
| 1 | | MUSC 134 | 3 | PSYC 270 | Abnormal Psychology | 3 | THEA 180 | Dramatic Literature and Style I |
| 1 | | MUSC 135 | 3 | RELS 120 | Religion in America | 3 | THEA 181 | Dramatic Literature and Style II |
| 1 | | MUSC 136 | 3 | RELS 201 | Life and Letters of Paul | 3 | THEA 261 | Acting II |
| 1 | | MUSC 137 | 3 | RELS 203 | World Religions | | | |
| 1 | * | MUSC 138 | 3 | RELS 220 | Old Testament | | | |
| 1 | | MUSC 145 | 3 | RELS 230 | New Testament | | | |
| 1 | | MUSC 146 | 3/1 | SCNC 101 | Physical Science I/Lab (Biology & Chemistry) | | | |
| 3 | * | NUTR 240 | | | | | | |

Transfer Course

Transfer Course

Transfer Course

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 |
| _____ | 2 | ASC 91 | Algebra Prep I | _____ | 2 | ASC 95 | College Writing Prep II |
| _____ | 2 | ASC 92 | Algebra Prep II | _____ | 2 | ASC 96 | College Writing Prep III |
| _____ | 2 | ASC 93 | Algebra Prep III | _____ | 3/1 | ASC 098 | Basic Biology/Lab |

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.bismarkstate.edu/> for the complete listing of college degree requirements.