LOPER 8: NATURAL SCIENCE

BROAD KNOWLEDGE REQUIREMENTS — Every university-educated person should be able to:

Solve problems and evaluate conclusions using the concepts and methods in a *natural science* discipline (minimum 3 hours). Courses must meet all learning outcomes.

Assessed as:

- 1. Can use the discipline's concepts and methods to explain natural or physical phenomena
- 2. Can investigate problems and analyze evidence using appropriate scientific methodology
- 3. Can make and support an argument based on sound scientific principles
- 4. Can articulate the significance of scientific knowledge for themselves or for society

**Natural science requirement may include a lab component (total hours 3 – 4)

BIOL 102 Environmental Biology 3 BIOL 103 General Biology 4 BIOL 105 Biology I 4 BIOL 106 Biology II 4 BIOL 215 Human Physiology 4 CHEM 101 Chemistry & Current Events 3 CHEM 145 Introductory Chemistry 4 CHEM 148 Introductory Chemistry for the Health Sciences CHEM 150 Introduction to Organic and Biochemistry 4 CHEM 160 General Chemistry 4 & 160L and General Chemistry Laboratory CHEM 161 General Chemistry Laboratory CHEM 161 General Chemistry 4 & 161L and General Chemistry Laboratory GEOG 101 Physical Geography II: The Atmosphere 4 GEOG 102 Physical Geography II: The Lithosphere 4 GEOG 103 The Dynamic Planet: Hazards in the Environment GEOG 201 Earth Science 4 GEOG 209 Meteorology 3 PHYS 100 Physical Science 4
BIOL 105 Biology I BIOL 106 Biology II 4 BIOL 215 Human Physiology 4 CHEM 101 Chemistry & Current Events 3 CHEM 145 Introductory Chemistry 4 CHEM 148 Introductory Chemistry for the Health Sciences CHEM 150 Introduction to Organic and Biochemistry 4 CHEM 160 General Chemistry 4 8 160L and General Chemistry Laboratory CHEM 161 General Chemistry 4 8 161L and General Chemistry Laboratory GEOG 101 Physical Geography I: The Atmosphere 4 GEOG 102 Physical Geography II: The Lithosphere 4 GEOG 103 The Dynamic Planet: Hazards in the Environment GEOG 201 Earth Science 4 GEOG 209 Meteorology 3
BIOL 106 Biology II 4 BIOL 215 Human Physiology 4 CHEM 101 Chemistry & Current Events 3 CHEM 145 Introductory Chemistry 4 CHEM 148 Introductory Chemistry for the Health Sciences CHEM 150 Introduction to Organic and Biochemistry 4 CHEM 160 General Chemistry 4 & 160L and General Chemistry 4 & 161L and General Chemistry Laboratory CHEM 161 General Chemistry 4 & 161L The Atmosphere 4 GEOG 102 Physical Geography II: The Atmosphere 4 GEOG 103 The Dynamic Planet: Hazards in the Environment GEOG 201 Earth Science 4 GEOG 209 Meteorology 3
BIOL 215 Human Physiology 4 CHEM 101 Chemistry & Current Events 3 CHEM 145 Introductory Chemistry 4 CHEM 148 Introductory Chemistry for the Health Sciences CHEM 150 Introduction to Organic and Biochemistry 4 CHEM 160 General Chemistry 4 & 160L and General Chemistry Laboratory CHEM 161 General Chemistry 4 & 161L and General Chemistry Laboratory GEOG 101 Physical Geography I: The Atmosphere 4 GEOG 102 Physical Geography II: The Lithosphere 4 GEOG 103 The Dynamic Planet: Hazards in the Environment GEOG 201 Earth Science 4 GEOG 209 Meteorology 3
CHEM 101 Chemistry & Current Events 3 CHEM 145 Introductory Chemistry 4 CHEM 148 Introductory Chemistry for the Health Sciences CHEM 150 Introduction to Organic and Biochemistry 4 CHEM 160 General Chemistry 4 & 160L and General Chemistry Laboratory CHEM 161 General Chemistry 4 & 161L and General Chemistry 4 & 161L 1 Environment 4 GEOG 102 Physical Geography II: The Atmosphere 4 GEOG 103 The Dynamic Planet: Hazards in the Environment GEOG 201 Earth Science 4 GEOG 209 Meteorology 3
CHEM 145 Introductory Chemistry 4 CHEM 148 Introductory Chemistry for the Health Sciences CHEM 150 Introduction to Organic and Biochemistry 4 CHEM 160 General Chemistry 4 & 160L and General Chemistry Laboratory CHEM 161 General Chemistry 4 & 161L and General Chemistry Laboratory GEOG 101 Physical Geography I: The Atmosphere 4 GEOG 102 Physical Geography II: The Lithosphere 4 GEOG 103 The Dynamic Planet: Hazards in the Environment GEOG 201 Earth Science 4 GEOG 209 Meteorology 3
CHEM 148 Introductory Chemistry for the Health Sciences CHEM 150 Introduction to Organic and Biochemistry 4 CHEM 160 General Chemistry 4 & 160L and General Chemistry Laboratory CHEM 161 General Chemistry 4 & 161L and General Chemistry Laboratory GEOG 101 Physical Geography I: The Atmosphere 4 GEOG 102 Physical Geography II: The Lithosphere 4 GEOG 103 The Dynamic Planet: Hazards in the Environment GEOG 201 Earth Science 4 GEOG 209 Meteorology 3
Sciences CHEM 150 Introduction to Organic and Biochemistry 4 CHEM 160 General Chemistry 4 & 160L and General Chemistry Laboratory CHEM 161 General Chemistry 4 & 161L and General Chemistry Laboratory GEOG 101 Physical Geography I: The Atmosphere 4 GEOG 102 Physical Geography II: The Lithosphere 4 GEOG 103 The Dynamic Planet: Hazards in the Environment GEOG 201 Earth Science 4 GEOG 209 Meteorology 3
CHEM 160 General Chemistry 4 8 160L and General Chemistry Laboratory CHEM 161 General Chemistry 4 8 161L and General Chemistry Laboratory GEOG 101 Physical Geography I: The Atmosphere 4 GEOG 102 Physical Geography II: The Lithosphere 4 GEOG 103 The Dynamic Planet: Hazards in the Environment GEOG 201 Earth Science 4 GEOG 209 Meteorology 3
& 160L and General Chemistry Laboratory CHEM 161 General Chemistry 4 & 161L and General Chemistry Laboratory GEOG 101 Physical Geography I: The Atmosphere 4 GEOG 102 Physical Geography II: The Lithosphere 4 GEOG 103 The Dynamic Planet: Hazards in the Environment GEOG 201 Earth Science 4 GEOG 209 Meteorology 3
& 161Land General Chemistry LaboratoryGEOG 101Physical Geography I: The Atmosphere4GEOG 102Physical Geography II: The Lithosphere4GEOG 103The Dynamic Planet: Hazards in the Environment3GEOG 201Earth Science4GEOG 209Meteorology3
GEOG 102 Physical Geography II: The Lithosphere 4 GEOG 103 The Dynamic Planet: Hazards in the Environment GEOG 201 Earth Science 4 GEOG 209 Meteorology 3
GEOG 103 The Dynamic Planet: Hazards in the Environment GEOG 201 Earth Science 4 GEOG 209 Meteorology 3
Environment GEOG 201 Earth Science 4 GEOG 209 Meteorology 3
GEOG 209 Meteorology 3
DHVC 100 Physical Science 4
& 100L and Physical Science Laboratory
PHYS 107 Physical Science for Elementary Teachers 4
PHYS 131H Newton's Universe 4
PHYS 155 Science of Sound and Music 4 & 155L and Science of Sound and Music Laboratory
PHYS 201 Earth Science 4
PHYS 203 General Physics for Allied Health 4
PHYS 205 General Physics I 5 & 205L and Physics I Laboratory
PHYS 209 Meteorology 3

PHYS 210	Astronomy	3
PHYS 275 & 275L	General Physics I (Calculus) and General Physics I (Calculus) Laboratory	5
PHYS 276 & 276L	General Physics II (Calculus) and General Physics II (Calculus) Laboratory	5