Earth Science Requirements: (24 sem. hrs. req.)
GEO 115 Physical Geology ..................................3
GEO 115L Physical Geology Laboratory ..................1
GEO 116 Geological History of the Earth ................3
GEO 116L Geological History of the Earth Laboratory ..1
GEO 201 Mineralogy ........................................3
GEO 201L Mineralogy Laboratory ..........................1
GEO 208 Environmental Geology ...........................3
GEO 208L Environmental Geology Laboratory ............1
GEO 301 Structural Geology ................................3
GEO 301L Structural Geology Laboratory ................1
Select additional courses to total 24 hours in Geology:
GEO 307 Geomorphology ....................................3
GEO 307L Geomorphology Laboratory .....................1
GEO 309 Surface and Groundwater Hydrology ............3
GEO 309L Surface and Groundwater Hydrology Laboratory..1
GEO 303 Field Geology ......................................6
GEO 401 Paleontology .......................................3
GEO 401L Paleontology Laboratory ........................1
GEO 403 Sedimentary .......................................3
GEO 403L Sedimentary Laboratory ........................1

Chemistry Requirements: (20 sem. hrs. req.)
CHM 123 General Chemistry I ..............................3
CHM 123L General Chemistry I Laboratory ...............1
CHM 124 General Chemistry II .............................3
CHM 124L General Chemistry II Laboratory ..............1
CHM 201 Quantitative Analysis ............................3
CHM 201L Quantitative Analysis Laboratory ..............1
CHM 313 Organic Chemistry I ................................3
CHM 313L Organic Chemistry I Laboratory ...............1
Select additional courses to total 20 hours in Chemistry:
CHM 302 Physical Chemistry ................................3
CHM 314 Organic Chemistry II ................................3
CHM 314L Organic Chemistry II Laboratory ..............1
CHM 341 Environmental Chemistry ........................3
CHM 341L Environmental Chemistry Laboratory .........1
CHM 420 Biochemistry ......................................3

Biology & Physics Science Requirements: (8 sem. hrs. req.)
BIO 151 Concepts of Biology I .............................3
BIO 151L Biology Laboratory Investigation ................1
PHY 201 General Physics I ..................................3
PHY 201L General Physics I Laboratory ...................1

Math Requirements: (12 sem. hrs. req.)
MTH 168 Analytical Geometry and Calculus I .............4
MTH 169 Analytical Geometry and Calculus II .............4
MTH 218 Analytical Geometry and Calculus III ..........4

Computer Requirements:
Use of computers is required in BIO 151L, BIO 152L, PHY 210L, and PHY 211L. Students who do not possess needed skills should take CPS 111 or a higher level CPS course.

Life Science / Earth Licensure 2014-2015
Requires a total of 77 semester hours

Pedagogy Requirements: (4 sem. hrs. req.)
EDT 434 Science Methods For AYA .........................3
EDT 434L Science Methods For AYA Lab ..................1
STANDER SYMPOSIUM Presentation and Participation in Science
https://stander.udayton.edu

Earth Science Requirements: (24 sem. hrs. req.)
GEO 115 Physical Geology ..................................3
GEO 115L Physical Geology Laboratory ..................1
GEO 116 Geological History of the Earth ................3
GEO 116L Geological History of the Earth Laboratory ..1
GEO 201 Mineralogy ........................................3
GEO 201L Mineralogy Laboratory ..........................1
GEO 208 Environmental Geology ...........................3
GEO 208L Environmental Geology Laboratory ............1
GEO 301 Structural Geology ................................3
GEO 301L Structural Geology Laboratory ................1
Select additional courses to total 24 hours in Geology:
GEO 307 Geomorphology ....................................3
GEO 307L Geomorphology Laboratory .....................1
GEO 309 Surface and Groundwater Hydrology ............3
GEO 309L Surface and Groundwater Hydrology Laboratory..1
GEO 303 Field Geology ......................................6
GEO 401 Paleontology .......................................3
GEO 401L Paleontology Laboratory ........................1
GEO 403 Sedimentary .......................................3
GEO 403L Sedimentary Laboratory ........................1

Chemistry Requirements: (20 sem. hrs. req.)
CHM 123 General Chemistry I ..............................3
CHM 123L General Chemistry I Laboratory ...............1
CHM 124 General Chemistry II .............................3
CHM 124L General Chemistry II Laboratory ..............1
CHM 201 Quantitative Analysis ............................3
CHM 201L Quantitative Analysis Laboratory ..............1
CHM 313 Organic Chemistry I ................................3
CHM 313L Organic Chemistry I Laboratory ...............1
Select additional courses to total 20 hours in Chemistry:
CHM 302 Physical Chemistry ................................3
CHM 314 Organic Chemistry II ................................3
CHM 314L Organic Chemistry II Laboratory ..............1
CHM 341 Environmental Chemistry ........................3
CHM 341L Environmental Chemistry Laboratory .........1
CHM 420 Biochemistry ......................................3

Biology & Physics Science Requirements: (8 sem. hrs. req.)
BIO 151 Concepts of Biology I .............................3
BIO 151L Biology Laboratory Investigation ................1
PHY 201 General Physics I ..................................3
PHY 201L General Physics I Laboratory ...................1

Math Requirements: (12 sem. hrs. req.)
MTH 168 Analytical Geometry and Calculus I .............4
MTH 169 Analytical Geometry and Calculus II .............4
MTH 218 Analytical Geometry and Calculus III ..........4

Computer Requirements:
Use of computers is required in BIO 151L and BIO 152L. Students who do not possess needed skills should take CPS 111 or a higher level CPS course.