CHEMISTRY / PHYSICS LICENSURE 2014-2015
REQUIRES A TOTAL OF 64 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 & Participation in Science
https://stander.udayton.edu

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

Physics Requirements: (20 sem. hrs req.)

PHY 206  General Physics I—Mechanics .........................3
PHY 207  General Physics II—Electricity and Magnetism ....3
PHY 208  General Physics III—Mechanics of Waves .........3
PHY 210L General Physics Laboratory I .........................1
PHY 211L General Physics Laboratory II .......................1
PHY 250  Descriptive Astronomy ..................................3
PHY 321  Atomic and Nuclear Physics ..........................3
PHY 395  Research Participation I ...............................1

Select additional courses to total 20 hours in Physics:
PHY 303  Intermediate Mechanics I ............................3
PHY 333  Digital and Analog Electronics for Scientists ....3

Biology & Earth Science Requirements: (8 sem. hrs req.)

BIO 151  Concepts of Biology I ..................................3
BIO 151L Biology Laboratory Investigation I .................1
GEO 115  Physical Geology .......................................3
GEO 115L Physical Geology 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.

EARTH / PHYSICS LICENSURE 2014-2015
REQUIRES A TOTAL OF 72 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 & 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

Physics Requirements: (20 sem. hrs req.)

PHY 206  General Physics I—Mechanics .........................3
PHY 207  General Physics II—Electricity and Magnetism ....3
PHY 208  General Physics III—Mechanics of Waves .........3
PHY 210L General Physics Laboratory I .........................1
PHY 211L General Physics Laboratory II .......................1
PHY 250  Descriptive Astronomy ..................................3
PHY 321  Atomic and Nuclear Physics ..........................3
PHY 395  Research Participation I ...............................1

Select additional courses to total 20 hours in Physics:
PHY 303  Intermediate Mechanics I ............................3
PHY 333  Digital and Analog Electronics for Scientists ....3

Biology & Chemistry Requirements: (12 sem. hrs req.)

BIO 151  Concepts of Biology I ..................................3
BIO 151L Biology Laboratory Investigation I .................1
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

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.