

LIFE SCIENCE / CHEMISTRY LICENSURE Fall 2017
REQUIRES A TOTAL OF 71 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	

Biology Requirements: (27 sem. hrs. req.)

BIO 151 Concepts of Biology I.....	3
BIO 151L Biology Laboratory Investigation I	1
BIO 152 Concepts of Biology II	3
BIO 152L Biology Laboratory Investigations II.....	1
BIO 301 Evolution	3
BIO 309 Comparative Anatomy.....	3
BIO 309L Comparative Anatomy Laboratory	1
BIO 310 Ecology.....	3
BIO 310L Ecology Laboratory	1
BIO 314 Plant Biology	3
BIO 314L Plant Biology Laboratory	1
BIO 411 General Microbiology	3
BIO 411L General Microbiology 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
CHM 314 Organic Chemistry II	3
CHM 314L Organic Chemistry II Laboratory	1

Earth Science & Physics Requirements: (12 sem. hrs. req.)

GEO 115 Physical Geology	3
GEO 115L Physical Geology Laboratory	1
PHY 201 General Physics I.....	3
PHY 201L General Physics I Laboratory	1
PHY 202 General Physics II	3
PHY 202L General Physics II Laboratory	1

Math Requirements: (8 sem. hrs. req.)

MTH 168 Analytic Geometry and Calculus I	4
MTH 169 Analytic Geometry and Calculus II	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.

Integrated Science License: Requires a single and/or dual field concentration area, and the Integrated Science state of Ohio teaching license will be processed by the University of Dayton once ODE has issued the single and/or double field concentration license.

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EDT 434 Science Methods For AYA	3
EDT 434L Science Methods For AYA Lab	1
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Biology Requirements: (27 sem. hrs. req.)

BIO 151 Concepts of Biology I	3
BIO 151L Biology Laboratory Investigation I	1
BIO 152 Concepts of Biology II	3
BIO 152L Biology Laboratory Investigations II	1
BIO 301 Evolution.....	3
BIO 309 Comparative Anatomy	3
BIO 309L Comparative Anatomy Laboratory	1
BIO 310 Ecology	3
BIO 310L Ecology Laboratory.....	1
BIO 314 Plant Biology	3
BIO 314L Plant Biology Laboratory	1
BIO 411 General Microbiology	3
BIO 411L General Microbiology 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
<u>Select additional courses to total 20 hours in Physics:</u>	
PHY 303 Intermediate Mechanics I.....	3
PHY 333 Digital and Analog Electronics for Scientists	3

Chemistry & Earth Science Requirements: (16 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 313 Organic Chemistry I.....	3
CHM 313L Organic Chemistry I Laboratory	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