

Name _____
 Z No. _____ Date _____
 Telephone _____ Email _____
 Advisor _____

| COURSE EARNED | COURSE CODE | COURSE TITLE | CREDIT HOURS | COURSE EARNED | COURSE CODE | COURSE TITLE | CREDIT HOURS |
|----------------------------|--------------|---------------------------------------|--------------|----------------------------|-------------|---------------------------------|--------------|
| FRESHMAN Semester 1 | | | | FRESHMAN Semester 2 | | | |
| _____ | *BIO/CHE 105 | Fundamentals of Biology and Chemistry | 3 | _____ | BIO 112 | Introductory Biology II Lecture | 3 |
| _____ | BIO 111 | Introductory Biology I Lecture | 3 | _____ | BIO 112 | Introductory Biology II Lab | 1 |
| _____ | BIO 111 | Introductory Biology I Lab | 1 | _____ | BIO 209 | Methods in Biotechnology | 1 |
| _____ | CHE 111 | General Chemistry I Lecture | 3 | _____ | CHE 112 | General Chemistry II Lecture | 3 |
| _____ | CHE 111 | General Chemistry I Lab | 1 | _____ | CHE 112 | General Chemistry II Lab | 1 |
| _____ | MAT 106/201 | Trigonometry or Calculus I | 3-4 | _____ | COM 101 | Oral Communication | 3 |
| _____ | COMP 102 | Reading and Writing in Liberal Arts | 3 | _____ | GOV 101 | American Government | 3 |
| _____ | PRF 070 | Swimming Proficiency | 0 | _____ | HPE 002 | Health Fitness II | 1 |
| _____ | HPE 001 | Health Fitness I | 1 | | | | 16 |
| _____ | GEN 099 | Whole Person Assessment | 0 | | | | |
| | | | <u>15-19</u> | | | | |

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|-----------------------------|-----------|------------------------------------|-----------|-----------------------------|-----------|-------------------------------------|-------------|
| SOPHOMORE Semester 3 | | | | SOPHOMORE Semester 4 | | | |
| _____ | BIO _____ | Biology Elective Lecture | 3 | _____ | BIO 312 | Ecology or Field Biology Lecture | 3 |
| _____ | BIO _____ | Biology Elective Laboratory | 1 | _____ | BIO 312 | Ecology or Field Biology Laboratory | 1 |
| _____ | CHE 211 | Organic Chemistry I Lecture | 3 | _____ | CHE 212 | Organic Chemistry II Lecture | 3 |
| _____ | CHE 211 | Organic Chemistry I Lab | 1 | _____ | CHE 212 | Organic Chemistry II Laboratory | 1 |
| _____ | HUM 103 | Christian Worldview and Culture | 3 | _____ | HUM _____ | Humanities Elective | 3 |
| _____ | BLIT 110 | Survey of Old Testament Literature | 3 | _____ | BLIT 120 | Survey of New Testament Literature | 3 |
| _____ | HPE _____ | HPE Activity | 0.5 | _____ | HIS 101 | American History | 3 |
| | | | <u>15</u> | _____ | HPE _____ | HPE Activity | 0.5 |
| | | | | | | | <u>17.5</u> |

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|--------------------------|-----------|-----------------------------|-----------|--------------------------|-----------|-------------------------------------|-------------|
| JUNIOR Semester 5 | | | | JUNIOR Semester 6 | | | |
| _____ | PHY 101 | General Physics I Lecture | 3 | _____ | BIO 372 | Introduction to Biological Research | 1 |
| _____ | PHY 101 | General Physics I Lab | 1 | _____ | PHY 102 | General Physics II Lecture | 3 |
| _____ | MAT 332 | Biostatistics | 3 | _____ | PHY 102 | General Physics II Lab | 1 |
| _____ | HUM _____ | Humanities Elective | 3 | _____ | BIO _____ | Biology Elective Lecture | 3 |
| _____ | THE 103 | Spirit-Empowered Living | 3 | _____ | BIO _____ | Biology Elective Laboratory | 1 |
| _____ | BIO _____ | Biology Elective Lecture | 3 | _____ | HUM _____ | Humanities Elective | 3 |
| _____ | BIO _____ | Biology Elective Laboratory | 1 | _____ | COMP 303 | Critical Reading and Writing | 3 |
| _____ | HPE _____ | HPE Activity | 0.5 | _____ | HPE _____ | HPE Activity | 0.5 |
| | | | <u>18</u> | | | | <u>15.5</u> |

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|--------------------------|-----------|-----------------------------|-------------|--------------------------|-----------|---------------------|-------------|
| SENIOR Semester 7 | | | | SENIOR Semester 8 | | | |
| _____ | BIO 499 | Senior Paper | 3 | _____ | BIO 451 | Biology Seminar | 1 |
| _____ | _____ | Social Sciences Elective | 3 | _____ | BIO 456 | Bioethics | 3 |
| _____ | _____ | General Elective*** | 3 | _____ | _____ | General Elective*** | 3 |
| _____ | _____ | General Elective*** | 3 | _____ | _____ | General Elective*** | 3 |
| _____ | BIO _____ | Biology Elective Lecture | 3 | _____ | _____ | General Elective*** | 3 |
| _____ | BIO _____ | Biology Elective Laboratory | 1 | _____ | _____ | General Elective*** | 3 |
| _____ | HPE _____ | HPE Activity | 0.5 | _____ | HPE _____ | HPE Activity | 0.5 |
| | | | <u>16.5</u> | | | | <u>16.5</u> |

* Prerequisite for BIO 111/CHE 111 based on ACT/SAT score

*** Follow recommendations of your advisor. Biochemistry and Chemistry minor are possible choices.

DEGREE PLAN SHEET 2014-2015

Biology and Chemistry Department

Biology (BIO Major)

(F)=Fall Semester (S)=Spring Semester

| GENERAL EDUCATION REQUIREMENTS | | MAJOR REQUIREMENTS | |
|--------------------------------|----|--------------------------|----|
| 55 Credit Hours Required | 55 | 21 Credit Hours Required | 21 |

| | Credit Hours | | Credit Hours |
|---|--------------|--|--------------|
| For the Spirit | | | 3 |
| _____ BLIT 110 Survey of Old Testament Literature | 3 | _____ BIO 111 Introductory Biology I Lecture | 3 |
| _____ BLIT 120 Survey of New Testament Literature | 3 | _____ BIO 111 Introductory Biology I Laboratory | 1 |
| _____ THE 103 Spirit-Empowered Living | 3 | _____ BIO 112 Introductory Biology II Lecture | 1 |
| | | _____ BIO 112 Introductory Biology II Laboratory | 3 |
| For the Mind | | _____ BIO 209 Methods in Biotechnology | 1 |
| _____ GEN 099 Whole Person Assessment | 0 | _____ BIO 312 Ecology Lecture (F)** | 1 |
| _____ PHY 101 General Physics I Lecture* | 3 | _____ BIO 312 Ecology Laboratory** | 1 |
| _____ PHY 101 General Physics I laboratory* | 1 | _____ BIO 372 Introduction to Biological Research (F) | 3 |
| _____ PHY 102 General Physics II Lecture* | 3 | _____ BIO 451 Biology Seminar (S) | 3 |
| _____ PHY 102 General Physics II Laboratory* | 1 | _____ BIO 456 Bioethics | |
| _____ COM 101 Oral Communication | 3 | _____ BIO 499 Individual Research and Senior Paper (F) | |
| _____ COMP 102 Reading and Writing in the Liberal Arts | 3 | | |
| _____ COMP 303 Critical Reading and Writing (S Junior Year) | 3 | | |
| _____ GOV 101 American Government | 3 | | |
| _____ HIS 101 American History | 3 | | |
| _____ MAT 332 Biostatistics | 3 | | |
| _____ HUM 103 Christian Worldview and Culture | 3 | | |
| _____ _____ Humanities Electives (3 required) | 9 | | |
| _____ _____ Must choose at least one from the following list: | | | |
| _____ _____ HUM 222, 233, 244, 333 | | | |
| _____ _____ Additional options include: | | | |
| _____ _____ HONR 102; HUM 250, 255, 260, 270; COMP 101; | | | |
| _____ _____ MAT 315 | | | |
| _____ _____ Social Sciences Elective (1 required) | 3 | | |
| _____ _____ FIN 244; PSY 201; SOC 201 | | | |

**May be replaced by one of the following field courses (lecture and lab)
 BIO 458 Marine Ecology or AUS course
 AUS 302 Limnology
 AUS 303 Ecological Agriculture
 AUS 304 Global Development and Ecological Sustainability
 AUS 311 Field Botany
 AUS 312 Insect Biology and Ecology
 AUS 322 Aquatic Biology
 AUS 359 Marine Mammals
 AUS 377 Marine Invertebrates
 AUS 471 Conservation Biology
 AUS 482 Restoration Ecology

Courses with AUS prefix are offered only at AUSALE Institute 16

*Physics I and II Lecture and Laboratory may be substituted

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| For the Body | |
| _____ HPE 001 Health Fitness I | 1 |
| _____ HPE 002 Health Fitness II | 1 |
| _____ PRF 070 Swimming Course or Proficiency | 0 |
| _____ One HPE course per full-time semester at ORU | 3 |

MAJOR ELECTIVES
16 Credit Hours Required

| | | | |
|--|--|---|-----------|
| Choose four from the following courses: | | | 16 |
| _____ BIO 310 Microbiology (lecture and lab) (F) | | 4 | |
| _____ BIO 311 Genetics (lecture and lab) (S) | | 4 | |
| _____ BIO 411 Molecular Cell Biology (lecture and lab) (F) | | 4 | |
| _____ BIO 421 General and Comparative Physiology (lecture and lab) (S) | | 4 | |
| _____ BIO 431 Developmental Biology (lecture and lab) (S) | | 4 | |
| _____ BIO 454 Special Topics (lecture and lab) | | 4 | |
| _____ BIO 457 Principles of Immunology (lecture and lab) (S) | | 4 | |
| | | | 19 |

GENERAL ELECTIVES
17 Credit Hours Required

Seek your Advisor's advice. 17
 Recommended elective include **BIO/CHE 105** MAT 201,202; CHE 300, 400
 CHE 454, 457, BIO 200 Cadaver Dissection, PHS 223, 224
 and any upper division biology course.
 --A biochemistry or chemistry minor may be completed.
 --Students planning to pursue advanced degrees in biology should take
 foreign language for one or two years.
 --Elective hours may be used within the major for a concentration in
 premedicine, prehealth professions, or environmental science

COGNATE REQUIREMENTS
19 Credit Hours Required

| | | | |
|--|--|---|---|
| Choose one of the following courses: | | | |
| _____ MAT 106 Trigonometry | | 3 | 4 |
| _____ MAT 201 Calculus I | | 4 | 4 |
| _____ CHE 111 General Chemistry I (lecture and lab) | | | 4 |
| _____ CHE 112 General Chemistry II (lecture and lab) | | | 4 |
| _____ CHE 211 Organic Chemistry I (lecture and lab) | | | |
| _____ CHE 212 Organic Chemistry II (lecture and lab) | | | |