| NAME | EFFECTIVEDATE <br> AUGUST 27, 2018 |
| :--- | :---: |
| ID NUMBER | VERSION |
| 2188 |  |

D E GREE REQUIREMENTS

## GENERAL EDUCATION

## Student Learning Outcomes (SLO)

Upon completion of the requirements for the General
Education Program, students will be able to:
(1) communicate clearly and effectively orally and in writing.
(2) apply scientific and quantitative reasoning to solve problems and increase knowledge.
(3) apply skills in critical analysis and reasoning for the interpretation of data.
(4) engage critically with creative or artistic works.
(5) demonstrate the ability to retrieve, interpret, evaluate, and use information.
(6) analyze the role of values, ethics, diversity, and multiple perspectives in local and global society.

7 demonstrate an understanding of various models for the development of the whole person.

Completion of the KU General Education program will give students opportunities to:
(8) explore concepts, ideas, and methods from a variety of disciplines.

Use this checksheet to plan your degree program. Meet every semester with your academic advisor to be sure that you are taking courses that are required to obtain the degree you are seeking. Discuss your goals and choose courses that will help you to attain them. Get the most out of your education by taking advantage of everything that Kutztown University has to offer.


| Understanding |
| :--- |
| Science \& Technology |
| THESE CoURSES MEET SLO $2<3$ |



COURSES IN CATEGORIES B, C \& D MUST BE TAKEN OUTSIDE THE STUDENT'S MAJOR.
THE MAJOR IS DEFINED AS THE PREFIX THAT IDENTIFIES THE MAJOR.
CONCOMITANT REQUIREMENTS MAY BE TAKEN TO MEET GENERAL EDUCATION REQUIREMENTS


MAJOR PROGRAM- at least 4 courses must be 300 or 400 level

| ReTilifral Biology |  |  |
| :--- | :---: | :---: |
| course | CR | GRADE |
| BIO 104 PRINCIPLES OF BIOLOGY (must earn a C or better) | 4 |  |
| BIO 106 INTRODUCTION TO ZOOLOGY | 4 |  |
| BIO 108 INTRODUCTION TO BOTANY | 4 |  |
| BIO 216 GENETICS | 3 |  |
| BIO 224 APPLIED ENVIRONMENTAL MICROBIOLOGY | 3 |  |
| BIO 270 RESEARCH METHODS | 3 |  |
| BIO 380 SENIOR SEMINAR | 2 |  |
| TOTAL CREDITS | 23 |  |


| PRE-MEDICAL TRAEK |  |  |
| :--- | :---: | :---: |
| course | cr | GRADE |
| BIO 264 COMPARATIVE ANATOMY | 4 |  |
| BIO 346 MOLECULAR BIOLOGY OR BIO 350 CELL BIOLOGY | 3 |  |
| BIO 122 ANATOMY \& PHYSIOLOGY I OR <br> BIO 235 GENERAL PHYSIOLOGY (4 cr.) | $3 / 4$ |  |
| TOTAL CREDITS | $10 / 11$ |  |


| Program Eloctives |  |  |
| :---: | :---: | :---: |
| course | CR | GRADE |
| SELECT FOUR COURSES: <br> BIO 252 CELL PHYS \& METAB. OR CHM 312 BIOCHEM II ( 4 cr .) <br> BIO 306 FOOD MICROBIOLOGY <br> BIO 330 HISTOLOGY <br> BIO 334 MEDICAL PARASITOLOGY <br> BIO 336 MEDICAL MICROBIOLOGY <br> BIO 354 DEVELOPMENTAL BIOLOGY <br> BIO 356 IMMUNOLOGY <br> BIO 370 RESEARCH ( 3 cr .) OR BIO 390 INTERNSHIP (3 cr.) <br> CHM 310 BIOCHEM I ( 4 cr .) <br> BIO 460 CANCER BIOLOGY | 12/14 |  |
| biology field elective - select one course: <br> BIO 218 VERTEBRATE BIOLOGY <br> BIO/ENV222 ENIVRONMENTAL BIOLOGY <br> BIO/MAR 226 MARINE BIOLOGY <br> BIO 230 TAXONOMY OF VASCULAR PLANTS <br> BIO 244 ECOLOGY ( 4 cr .) / BIO 302 ENTOMOLOGY <br> BIO 308 ORNITHOLOGY / BIO 314 ANIMAL BEHAVIOR <br> BIO 322 POPULATION AND COMMUNITY ECOLOGY <br> BIO 324 PLANT ECOLOGY / BIO 342 HERPETOLOGY <br> BIO 332 AQUATIC ECOLOGY <br> BIO 358 CONSERVATION BIOLOGY <br> BIOLOGY COURSES OFFERED AT CHINCOTEAGUE FIELD STATION (200 LEVEL OR ABOVE) | 3/4 |  |
| TOTAL CREDITS 15/18 |  |  |

## CONCOMITANT COURSES

## Required Chemistry

| Course | CR | GRADE |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| CHM 100 GENERAL CHEMISTRY I | $\boxed{ }$ |  |  |  |  |
| CHM 102 GENERAL CHEMISTRY II | 4 |  |  |  |  |
| CHM 214 ORGANIC CHEMISTRY I | 4 |  |  |  |  |
| CHM 216 ORGANIC CHEMISTRY II | 4 |  |  |  |  |
| TOTAL CREDITS | 12 |  |  |  |  |


| Required Physics |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  | ${ }^{\text {cr }}$ | grade |
| PHY 40 GENERAL PHYSICSI OR PHY 100 PHYSIISS 1 |  | - |  |
| Total credits | 0 |  |  |


| Mathematics |  |  |  |
| :---: | :---: | :---: | :---: |
| counse |  | ${ }^{\text {cr }}$ | Grade |
| sleke one couns: |  | - |  |
| MAT 106 TRIGONOMETRY |  |  |  |
| MAT 115 PRECALCULUS |  |  |  |
| MAT 181 CALCULUS (4 4 cr.) |  |  |  |
| Total credits | 0 |  |  |

Elective Courses elective courses may be selecteo from any DEPARTMENT OR PROGRAM (INCLUDING BIO)

| course | CR | GRADE |
| :--- | :---: | :---: |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| TOTAL ELECTIVE CREDITS | $11 / 16$ |  |

UP TO THREE (3) CONCOMITANT COURSES MARKED WITH * CAN BE COUNTED FULFILL GEN ED GOAL: UNDERSTANDING SCIENCE AND TECHNOLOGY

NO SINGLE COURSE CAN COUNT TOWARD MORE THAN ONE CATEGORY

|  | REQUIRED | $\checkmark$ |  | REQUIRED | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| GENERAL EDUCATION CREDITS | 44 |  | COMPREHENSIVE EXAM | PASS |  |
| PROGRAM CREDITS (MINIMUM) | 60 |  | MINIMUM QPA OVERALL | 2.0 |  |
| ELECTIVES COURSES | 16 |  | MINIMUM QPA IN MAJOR | 2.0 |  |
| TOTAL CREDITS (120 MIN NEEDED TO GRaduate) | 120 |  | MAJOR PROGRAM COURSES 300 OR 400 LEVEL | 4 |  |

# B.S. Biology/Pre-Medical \& Other Health Careers 4-Year Schedule (2/2020) 

Program Code: ULASBIOMH Version: 2202

| BS Biology/Pre-Medical \& Other Health Careers First Semester Suggested Advising for Connections |
| :--- |
| BIO 104 - Principles of Biology |
| CHM 100 - General Chemistry I (C2) |
| First Year Seminar (FYS) |
| MAT 105, 106, 115 or $181^{1,2}$ depending on ALEKS placement score (C3) |

Freshman Year

| Fall Semester | Cr | Spring Semester | Cr |
| :--- | :---: | :--- | :---: |
| BIO 104 - Principles of Biology | 4 | BIO 106 - Intro to Zoology | 4 |
| CHM 100 - General Chemistry I (C1) | 4 | CHM 102 - General Chemistry II | 4 |
| First Year Seminar (FYS) | 3 | Gen Ed - (PSY 11 recommended) (B1) | 3 |
| Required Math ${ }^{1}$ (C2) | 3 | Gen Ed - (MAT 181 recommended) (Unrestricted <br> Elective) | $3 / 4$ |
| Total | 14 | Total | $14 / 15$ |

Sophomore Year

| Fall Semester | Cr | Spring Semester | Cr |
| :--- | :---: | :--- | :---: |
| PHY 40 or 100 (C3) | 4 | Elective Course $-($ PHY 42 or 100 recommended) <br> (Unrestricted Elective) ${ }^{2}$ | $3 / 4$ |
| CHM 214 Organic Chem I | 4 | CHM 216 - Organic Chem II | 4 |
| BIO 224 - Applied Env. Microbiology | 3 | BIO 216 - Genetics | 3 |
| BIO 270 - Research Methods | 3 | Elective Course $-($ Statistics class recommended) <br> (Unrestricted Elective) ${ }^{2,3}$ | 3 |
| Gen Ed - (SOC 10 recommended) (B2) | 3 | Gen Ed - CMP 100 (A1) | 3 |
| Total | 17 | Total | $16 / 17$ |

## Junior Year

| Fall Semester | Cr | Spring Semester | Cr |
| :--- | :---: | :--- | :---: |
| Gen Ed - (PSY 125 recommended) (B3) | 3 | Elective Course - CMP 200 (A2) | 3 |
| BIO 346 - Molecular Biology or BIO Elective ${ }^{4}$ | 3 | BIO 235 - General Physiology | 3 |
| BIO 264 - Comparative Anatomy | 4 | BIO Elective ${ }^{4}$ or BIO 350 - Cell Biology | 3 |
| BIO Elective (CHM 310 recommended) | $3 / 4$ | Gen Ed (D2) | 3 |
| Gen Ed Course (D1) | 3 |  |  |
| Total | $16 / 17$ | Total | 12 |

## Senior Year

| Fall Semester | Cr | Spring Semester | Cr |
| :--- | :---: | :--- | :---: |
| Gen Ed (A3) | 3 | BIO 380 - Senior Seminar in Biology | 2 |
| Gen Ed (A4) | 3 | BIO Field Elective ${ }^{4}$ | 3 |
| BIO 108 - Intro to Botany | 4 | Gen Ed (D3) | 3 |
| BIO Elective $^{4}$ | 3 | BIO Elective | 3 |
| Elective Course (Unrestricted Elective) ${ }^{2}$ | 3 | Elective Course (Unrestricted Elective) ${ }^{2}$ | 3 |
| Total | 16 | Total | 14 |

[^0]Student must complete all credits required in the major along with a total of 120 credits in order to graduate.
Note: No single course can count toward more than one category. At least four BIO courses must be at 300-400 level.
12/2019


[^0]:    ${ }^{1}$ See required courses on track sheet. Note: MAT 105 or ALEKS Math placement score greater than 60 is a prerequisite for MAT 106 or MAT 115. ALEKS Math Placement score greater than 75 is needed for MAT 181 (Calculus; 4 credits). Calculus is required for many medical schools, and a statistics class (which would include PSY/SOC 200, MAT 140, or MAT 150) is also important.
    ${ }^{2}$ Elective Courses (Unrestricted Electives) should be chosen in consultation with the student's academic advisor.
    ${ }^{3}$ CHM 310 (Biochemistry) and either PHY 42 or 102 (Physics II) are required for most medical schools and to perform well on the MCAT.
    ${ }^{4}$ See Biology electives on track sheet.

