STUDENT: _____ STUDENT ID NUMBER: _____

KUTZTOWN UNIVERSITY

COLLEGE OF LIBERAL ARTS & SCIENCES • BS • BIOLOGY/MOLECULAR/MICRO/CELL

Program Code: ULASBIOMM **Effective Date: 08/29/2011**

GENERAL EDUCATION

I. UNIVERSITY CORE (12 credits)	RC	CR	GR
A. Oral Communication: COM 10 or above			
COURSE:	3		
B. Written Communication: ENG 23, 24, or 25			
COURSE:	3		
C. Mathematics: MAT 17 or above			
COURSE:	3		
D. Wellness: Any 3-credit HEA course			
COURSE:	3		

II. UNIVERSITY DISTRIBUTION (15 credits)	RC	CR	GR	CAC
A. Natural Sciences: Any lab or non-lab course with prefix AST, BIO, CHM, ENV, GEL, MAR, NSE, or PHY; or certain GEG courses (see note at right)				
COURSE:	3			
B. Social Sciences: Any course with prefix ANT, CRJ, ECO, HIS, INT, MCS, PSY, POL, SOC, SSE, or SWK; or certain GEG courses (see note at right)				
COURSE:	3			
C. Humanities: Any course with prefix ENG, HUM, PAG, PHI, WRI, WGS, or Modern Language				
COURSE:	3			
D. Arts: Any course with prefix ARC, ARH, ART, CDE, CDH, CFT, DAN, FAR, FAS, MUP, MUS, or THE				
COURSE:	3			
E. Free Elective: Any course carrying university credit				
COURSE:	3			

III. COMPETENCIES ACROSS THE CURRICULUM	RC	CR	GR	CAC
A. Writing Intensive (**WI**) (9 credits)				
COURSE:	3			WI
COURSE:	3			WI
COURSE:	3			WI
B. Quantitative Literacy (**QL**) (3 credits) OR Computer-Intensive (**CP**) (3 credits)				
COURSE:	3			
C. Visual Literacy (**VL**) (3 credits) OR Communication-Intensive (**CM**) (3 credits)				
COURSE:	3			
D. Cultural Diversity (**CD**) (3 credits)				
COURSE:	3			CD
E. Critical Thinking (**CT**) (3 credits)				
COURSE:	3			CT

A Competency Across the Curriculum (CAC) course is not a separate course, but rather an overlay that is "double counted" as fulfilling both the CAC requirement and another requirement in either General Education (except for the University Core), the major, or the minor.

RC = Minimum required number of credits
CR = Credits earned (fill in number of credits)
GR = Grade earned (fill in letter grade)
CAC = Competency Across the Curriculum (fill in designation)

NOTE: GEG courses with a lab and 40, 322, and 323 may be used in II.A. and GEG courses 40, 204, 274, 304, 322, 323, 324, 347, 380, and 394 may NOT be used in II.B.

IV. COLLEGE DISTRIBUTION (33 credits)	RC	CR	GR	CAC
A. Natural Science, Mathematics, and Computer Science# (6 credits): Choose one course in each subcategory.				
1. Natural Science with Lab: AST, BIO, CHM, ENV, GEL, PHY, or MAR; or GEG (see note at right)				
COURSE:	3			
2. Elective: MAT, CSC, AST, BIO, CHM, ENV, GEL, PHY, or MAR; or GEG (see note at right)				
COURSE:	3			
B. Social Science (9 credits): Choose one course in each subcategory.				
1. Elective: HIS, ANT, GEG (see note at right), or POL				
COURSE:	3			
2. Elective: PSY, SOC, CRJ, or SWK				
COURSE:	3			
3. Elective: ANT, HIS, ECO, GEG (see note at right), PSY, POL, SOC, CRJ, or SWK				
COURSE:	3			

	RC	CR	GR	CAC
C. Humanities (9 credits): Choose one course in each subcategory.				
1. Elective: PAG*, ENG, WRI, or HUM				
COURSE:	3			
2. Elective: Modern Language (103 or above) or PHI				
COURSE:	3			
3. Elective: PAG*, ENG, WRI, HUM, Modern Language (103 or above), or PHI				
COURSE:	3			
D. Free Electives (9 credits): Choose any university courses that count toward graduation.				
COURSE:	3			
COURSE:	3			
COURSE:	3			

NOTE: GEG courses with a lab and 40, 322, and 323 may be used in IV.A. and GEG courses 40, 204, 274, 304, 322, 323, 324, 347, 380, and 394 may NOT be used in IV.B.

Students in the College of Liberal Arts and Sciences are required to take at least one course in Biological Science (BIO) and at least one course in Physical Science (AST, CHM, ENV, GEL, PHY, MAR, GEG with lab, or GEG 40, GEG 322, or GEG 323), and at least one of which must be a lab (each course may be counted in either sections II.A or IV.A).

* Excludes PAG 011 and PAG 012

LIBERAL ARTS AND SCIENCES: BACHELOR OF SCIENCE BIOLOGY / MOLECULAR / MICRO / CELL

VI. MAJOR PROGRAM: 44/45 S.H.			
A. REQUIRED BIO: 23 S.H.	**Gr.**	**S.H.**	**CAC**
BIO 104 Principles of Biology		4	
BIO 106 Intro. To Zoology		4	
BIO 108 Intro. To Botany		4	
BIO 224 Applied Env. Microbiology		3	
BIO 270CT WI Research Methods		3	
BIO 216QL Genetics		3	
BIO 380 Senior Seminar		2	
B. MOLEC/MICRO/CELL TRACK: 9/10 S.H.			
BIO 252 Cell. Phys. & Metab. **OR** CHM 312 Biochemistry II		3/4	
BIO 346 Molecular Biology		3	
BIO 350 Cell Biology		3	
C. ELECTIVES: 12 S.H.			
BIO 232 Plant Physiology BIO 228 Human Physiology BIO 306 Food Microbiology BIO 330 Histology BIO 336 Medical Microbiology BIO 354 Developmental Biology BIO 300 Comp.Animal Physiology BIO 356 Immunology BIO 370 Research in Biology **OR** BIO 390 Internship in Biology BIO 460 Cancer Biology	Select two courses from this block.	6	
BIO Field Elective (Note 2)		3	
BIO 200, 300, or 400 level elective		3	
VII. CONCOMITANT COURSES: 34 S.H.			
A. REQUIRED CHM: 20 S.H.			
CHM 100 General Chemistry I		4	
CHM 102 General Chemistry II		4	
CHM 214VL Organic Chemistry I		4	
CHM 216WI Organic Chemistry II		4	
CHM 310 Biochemistry I		4	
B. REQUIRED PHY: 8 S.H.			
PHY 040 Physics I **&**		4	
PHY 042 Physics II **OR**		4	
PHY 100 Physics I **&**			
PHY 102 Physics II			
C. MATHEMATICS 6 S.H.			
MAT 106 Trigonometry **OR** MAT 115 Precalculus **OR** MAT 181 Calculus I		3	
MAT 140 Applied Statistics **OR** PSY/SOC 200 Statistics **OR** MAT 150 Biostatistics **OR** MAT 181 Calculus I **OR** MAT 182 Calculus II		3	
MIN. REQ. SEMESTER HOURS		**120**	

VIII. GRADUATION REQUIREMENTS		
A. At least 120 Semester Hours	yes	no
B. Comprehensive Exam Passed	yes	no
C. Minimum QPA of 2.0 overall	yes	no
D. Minimum QPA of 2.0 in major	yes	no
E. 5 courses in Cat VI at the 300 or 400 level	yes	no

NOTES
1. No single course can be used in more than one category.
2. Choose one course from among the following: BIO/ENV 222WI Env. Bio, BIO/MAR 226 Marine Biology, BIO 218 Vertebrate Biology, BIO 230 Plant Tax, BIO/ENV 244 Ecology, BIO 302 Entomology, BIO 308 Ornithology, BIO 314 Animal Behavior, BIO 322 Pop & Comm. Ecology, BIO 324 Plant Ecology, BIO 342 Herpetology, BIO 332WI Aquatic Ecology, Biology courses offered at Marine Science Consortium (200 level or above)
3. *PSY 011 and SOC 010 are prereq. to most other courses in their resp. disciplines.

Program: ULASBIOMM
Effective Date of Program: Fall 2011
Revised: 2/2011

Approved

B.S. Molecular/Micro/Cell Biology
Suggested 4-Year Schedule

Freshman Year

Fall Semester	Cr
CHM 100 – Gen Chem I	4
BIO 104 – Principles of Biology	4
Gen Ed Course	3
Gen Ed Course	3
Total	14

Spring Semester	Cr
CHM 216WI - Org Chem II	4
BIO 270CT WI – Research Methods	3
BIO 216 QL - Genetics	3
Required Math[1,2]	3
Gen Ed Course	3
Total	16

Sophomore Year

Fall Semester	Cr
CHM 214VL - Org Chem I	4
BIO 108 – Intro to Botany	4
BIO 224 – App. Env. Micro.	3
Gen Ed Course	3
Total	14

Spring Semester	Cr
CHM 102 – Gen Chem II	4
BIO 106 – Intro to Zoology	4
Gen Ed Course	3
Required Math[1,2]	3
Total	14

Junior Year

Fall Semester	Cr
PHY 40 or 100	4
BIO 346 Molecular Biology	3
BIO Elective[3]	3
Gen Ed Course	3
Gen Ed Course	3
Total	16

Spring Semester	Cr
PHY 42 or 102	4
BIO 350 Cellular Biology	3
BIO Elective[3]	3
Gen Ed Course	3
Gen Ed Course	3
Total	16

Senior Year

Fall Semester	Cr
CHM 310 Biochemistry I	4
BIO Elective[3]	3
Gen Ed Course	3
Gen Ed Course	3
Gen Ed Course	3
Total	16

Spring Semester	Cr
BIO 252 Cell Phys or CHM 312 Biochem II	3/4
BIO 380 - Senior Seminar	2
BIO Elective[3]	3
Gen Ed Course	3
Gen Ed Course	3
Total	15/16

[1] See required courses on track sheet. Note: **MAT 105** is a prerequisite **for MAT 106, MAT 140, and MAT 150**.
[2] Prerequisites of MAT 017 or higher **and** PSY 11 Intro to Psychology are required for PSY 200 (Statistics for the Social and Behavioral Sciences).
[3] See Biology electives on track sheet.

Note: No single course can count toward more than one category. At least five BIO courses must be at 300-400 level.