

COURSE SELECTION FOR A B.S. DEGREE IN BIOLOGY (BI) WITH A CONCENTRATION IN PUBLIC HEALTH & MICROBIOLOGY (BIPH)

<http://www.aum.edu/biology>

Advisors:

Freshman and sophomores should make an appointment with Sciences Central Advising 244-3592, Room 207, Goodwyn Hall.
Juniors and seniors should make an appointment with their biology advisor: <http://www.sciences.aum.edu/advising/biology>

Freshman Year	
ENGL 1010 English Comp. I*.....3	ENGL 1020 English Comp. II*.....3
CHEM 1100/1101 Gen. Chem./Lab4	CHEM 1200/1201 Gen. Chem/Lab.....4
BIOL 1010/1011 Prin. Biol. I/Lab*4	BIOL 1020/1021 Prin. Biol. II/Lab*4
UNIV 1000 University Success *3	MATH core elective*3
.....14	Area IV Core Elective*3
.....1717
Sophomore Year	
HIST or ENGL Core Sequence*.....3	HIST or ENGL Core Sequence*3
BIOL 2200/MATH 2200 Biostatistics3	BIOL 3300/3301 Genetics.....4
BIOL 3010/3011 Microbiology**4	Area IV Core Elective*3
BIOL Elective/Lab.....4	ENGL Lit or HIST Core Course as needed*3
COMM 1010 Comm or 2212 Public Speaking*.....3	FINE ARTS Core*3
.....1716
Junior Year	
BIOL 4060/61 Env Micro or 4050/51 Ind Micro....4	BIOL 3250 Epidemiology3
CHEM 3100/3101 Org. Chem. I/Lab.....4	CHEM 3200/3201 Org. Chem II/Lab.....4
BIOL Elective /Lab.....4	BIOL Elective/Lab4
Area II or Area IV Core Elective as needed*.....3	BIOL 4030/31 Virol or 4010/11 Med Micro WI.5
.....1516
Senior Year	
BIOL 4952 Capstone***3	CHEM 3300/3301 Biochem.....4
BIOL Elective/Lab.....4	Electives10 - 11
BIOL Elective 3 or 4
Writing Intensive (WI) Course*** 4 or 5
.....14 to 1614-15

Minimum Total Hours – 121

*University Core Courses including the Math core(Areas I, II, III, and IV):

See the back of this sheet for more information. You must complete the requirements in each area.

**Microbiology course information

Biology majors cannot receive Area V (major credit) for **both** BIOL 2010/2011 and BIOL 3010/3011. Do not schedule BIOL 3010/3011 without talking to your advisor if you have already taken a sophomore level Microbiology course.

Choose from the Following Biology Electives for 20 hours of electives in biology:

BIOL 2000 Gen Nutrition, BIOL 2100/2101 A & P I, BIOL 2110/2111 A & P II, BIOL 3400 Principles of Toxicology, ***BIOL 4070/4071 Immunobiology, ***BIOL 4030/4031 Virology, BIOL 4060/4061 Environmental Microbiology, BIOL 4050/4051 Industrial Microbiology, BIOL 4350/4351 Cell Biology, ***BIOL 4010/4011 Med Microbiology, ***BIOL 4600/4601 Molecular Genetics, or BIOL 4800/4801 Perspectives in Biology. At least 3course must have a lab. A maximum of 4 hours of BIOL 4932 Directed Research may count towards your Biology elective requirements. Up to 8 credit hours of Marine Environmental Sciences Consortium courses (MESC, taught at Dauphin Island Sea Lab) or Organization of Tropical Studies courses (OTS, taught in Costa Rica or South Africa) may be substituted for no more than 8 credit hours of biology electives. If MESC or OTS courses are used for biology elective credit, the student may not use BIOL 4800, 4803 or 4932 for biology elective credit; MESC and OTS course offerings vary from semester to semester. Allowable Substitutions for Organic Chemistry

Students may substitute CHEM 2300/2301 Survey of Organic Chemistry & Lab and CHEM 2013 Quantitative Analysis for CHEM 3100/3101 Organic I and 3200/3201 Organic II. This is not recommended if you plan on going to graduate school. No substitutions are allowed for CHEM 3300/3301 Biochemistry.

***Writing Intensive Course Requirements (Beginning Fall 2009)

Students must take three writing intensive courses in addition to English Composition I and II. At least two of the Writing Intensive courses must be in your major discipline. All biology majors are required to take BIOL 4952 Capstone as one of these courses. For the second course, you may choose between WI sections of BIOL 4073 Immunobiology, BIOL 4013 Medical Microbiology, BIOL 4603 Molecular Genetics, or BIOL 4033 Virology. For the third course, you may choose any writing intensive course (WI). Writing intensive courses are designated with a “WI” in the class schedule.

UNIVERSITY CORE CURRICULUM (Areas I, II, III, and IV)

See the current AUM Undergraduate Catalog for approved university (Areas I, II, III, and IV) core courses and the hours required in each of the four areas. Students must make a C or better in English Composition. Students must complete a 6-hour sequence in either literature or history. Students must take at least one course in history and one course in literature.

AREA I: Written Composition (6 Hrs of ENGL):	
ENGL 1010 English Comp. I <i>(or Honors ENGL 1017)</i>	ENGL 1020 English Comp. II <i>(or Honors ENGL 1027)</i>

AREA II: Humanities and Fine Arts (12 Hrs):	
LITERATURE (ENGL): Students Must take a 2 Literature sequence and 1 History or 1 Literature and a 2 History sequence. (See Area IV). Take at least 1 literature. If you want to take your sequence in literature instead of history choose from one of the two sequences below.	
ENGL 2530 Survey of Eng. Lit. I and ENGL 2540 Survey of Eng. Lit. II or ENGL 2570 Survey of Am. Lit. I and ENGL 2580 Survey of Am. Lit. II or INTL/ENGL 2600 Survey Lit. West. World I and INTL/ENGL 2610 Survey Lit. West. World II	
Fine Arts Appreciation: (1 required)	
MUSI 2110 Music Appreciation or THEA 2040 Theater Appreciation or VISU 1000 Art Appreciation or VISU 2030 Art History 1 or VISU 2040 Art History II or VISU 2600 Architecture Appreciation	
Communications (1 COMM course required):	
COMM 1010 Intro. Human Comm. or COMM 2212 Public Speaking	
Elective (1 course required if you took only 1 Literature):	
See the AUM Catalog for current approved Area II elective courses. This <u>must</u> be a course that is approved for Area II.	

AREA III: Natural Sciences and Mathematics (minimum of 14 hours required):	
Biology (2 lab courses required):	
BIOL1010 Prin I with BIOL1011 Prin I Lab and BIOL1020 Prin II with BIOL 1021 Prin II Lab	
MATH* (2 or more courses required): Specific course requirements vary with the biology concentration.	
*See explanation in below box about math requirements. The math course requirements are based upon both University and Major (Area V) requirements. MATH 1100 or MATH 1150 Precal. Trig. or MATH 1510 Survey Calc or MATH 1610 Cal I, and BIOL 2200/MATH 2200 Biostatistics	
*Explanation of Math Core Courses: Some biology concentrations such as BIHS and BIGN require Physics. Physics requires that you have either MATH 1510 Survey of Calculus or MATH 1610 Calculus I. You must either place into Calculus or take the prerequisite Math courses. You may take the highest level Math course that you are qualified to take. That is, if you can start with Cal I you do not have to take the lower level prerequisites for Cal I.	

AREA IV: History, Social and Behavioral Sciences (12 Hrs):	
HISTORY (HIST): Students Must take a 2 History sequence and 1 Literature or 1 History and a 2 Literature sequence. (See Area II). Take at least 1 history. If you want to take your sequence in history instead of literature choose from one of the two sequences below.	
HIST 1010 World Hist. I and HIST 1020 World Hist. II or HIST 2010 U.S. Hist. I and HIST 2020 U.S. Hist. II or HIST 1060 Western Civilization I and HIST 1070 Western Civilization II.	
Electives: If you take a 2 history course sequence you need 2 electives. If you take 1 history you need 3 electives.	
See the AUM Catalog for current approved Area IV elective courses.	

Additional Information:

Do not wait until the last minute to seek advising and your pin numbers. Be aware of important dates. Be sure and obtain an official AUM student email account, check it daily, and clear out old email so that you can continue to receive email. Note that 1000 level courses are freshman level, 2000 are sophomore level, 3000 are junior level, and 4000 are senior level.

You need to plan your elective courses based on your interests and future career plans. Students wishing to pursue Graduate School should note that most schools require Calculus and two semesters of Physics as well as two semesters of Organic Chemistry.

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