

**BIOLOGICAL SCIENCES DEPARTMENT**  
**COLLEGE OF ARTS AND SCIENCES**                      **WESTERN MICHIGAN UNIVERSITY**

## BIOLOGY MAJOR – KIRTLAND CC TRANSFER GUIDE

**BIOLOGICAL SCIENCES COURSES** - A minimum of 32 credit hours; all courses **MUST** have the appropriate prerequisites met **BEFORE** enrollment; **you MUST have a "C" or better in ALL BIOS classes**, both to use as a prerequisite and to count for the major.

<b>Required Core</b>	<b>Approved Substitute</b>	<b>Where taken other than WMU</b>	<b>Credit Hours</b>	<b>Grade Rec'd</b>	<b>Semester Taken or Comments</b>
BIOS 1500			4		
BIOS 1510			4		
BIOS 2500			3		
BIOS 2020 or 3120	BIO 20200	Kirtland CC	4 or 5		
BIOS 3010*			5		
BIOS 3190* or 3500*			4 or 5		

**BIOS Electives:** A minimum of 6 credit hours from the following: 3120, 4270, 4300, 4390, 4410, 4420, 4560, 4980, 4990, 5240, 5250, 5260, 5340, 5360, 5420, 5470, 5490, 5530, 5570, 5590, 5600, 5610, 5700, 5740, 5970; **only 3 hr. may be 4980 or 4990.**

BIOS					
BIOS					
BIOS					
Capstone Experience BIOS 5970 or 4990			3		Sen. Sem. or Ind. Res.
<b>TOTAL</b>			<u>32 or more</u>		

\* Baccalaureate Writing Requirement course: BIOS 3010, 3190, 3500 or approved substitute

**REQUIRED COGNATES:**

**CHEMISTRY** - A minimum of 16 credit hours, including a course in organic chemistry and biochem. with lab.

CHEM 1100 & 1110	CHE 10101 & 10102	Kirtland CC	3, 1		
CHEM 1120 & 1130	CHE 10201 & 10202	Kirtland CC	3, 1		
CHEM 3700 & 3710			3, 1		
CHEM					
CHEM 3550 & 3560			3, 1		
<b>TOTAL</b>			<u>10</u>		

**PHYSICS** - Two courses in general physics with laboratories.

PHYS 1130 & 1140	PHY 20101 & 20102	Kirtland CC	4, 1		
PHYS 1150 & 1160	PHY 20201 & 20202	Kirtland CC	4, 1		
<b>TOTAL</b>			<u>10</u>		

**MATHEMATICS** - A minimum of 8 credit hours starting at calculus level or above and a course in Statistics.

MATH 1220 or 2000	MTH 22002	Kirtland CC	4		
STAT 2600 or 3660	MTH 20600	Kirtland CC	4		
<b>TOTAL</b>			<u>8</u>		

**NOTE: STUDENTS MUST SEE A CURRICULUM ADVISOR  
 IN THE ARTS AND SCIENCES ADVISING OFFICE IN 2318 FRIEDMAN HALL  
 TO DISCUSS GENERAL EDUCATION REQUIREMENTS;  
 YOU MUST ALSO SEE THE BIOLOGICAL SCIENCES UNDERGRADUATE  
 ADVISOR IN 3447 WOOD HALL TO SET UP AN OFFICIAL MAJOR SLIP.**