

# ***PRE-MEDICINE***

## ***BACHELOR OF SCIENCE IN APPLIED BIOLOGY***

### **FERRIS STATE UNIVERSITY/MACOMB COMMUNITY COLLEGE TRANSFER PLAN**

**CONCENTRATION ADVISOR: DR. MIKE RYAN**

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**Admission requirement for transfer students:**

1. Transfer students with fewer than 12 transferable credits at the time of application, must meet the current freshman admission criteria. The application will be considered for admission based upon the high school academic record.
2. Transfer students with 12 or more transferable credits at the time of application (including both English and Algebra) must have a minimum CGPA of 2.0. Students without an English and Algebra class will be required to submit an ACT/SAT score.

**Graduation Requirements:**

1. CUMULATIVE grade average of 2.0 in all course work
2. Grade average of 2.0 in biology courses with no grade lower than "C-"
3. Minimum of 121 semester credits including general education requirements
4. Residency requirement: 30 minimum FSU semester credits
5. Minimum of 40 credits numbered 300 or higher

<b>REQUIRED</b>		<b>COURSE TITLE – FOR PREREQUISITES, SEE FSU OR MACOMB CATALOG COURSE DESCRIPTIONS</b>	<b>FSU S.H.</b>	<b>MACOMB Equivalent</b>	<b>GRADE</b>
<b>MAJOR COURSES – 36 credit minimum</b>					
BIOL	121	General Biology 1	4	BIOL1010	
BIOL	122	General Biology 2	4	BIOL1000	
BIOL	321	Human Physiology/ Anatomy 1	4		
BIOL	322	Human Physiology/ Anatomy 2	4		
BIOL	347 or BIOL 442	Environmental Conservation Ecology	3		
BIOL	370	Developmental Biology	4		
BIOL	375	Principles of Genetics	4		
BIOL	386	Microbiology & Immunology	5		
BIOL	460	Current Topics in Biology	2		
BIOL		Biology Elective			
<b>ADDITIONAL PROGRAM REQUIREMENTS – 3 credits</b>					
COMM	121	Fundamentals of Public Speaking	3	SPCH1060	
MATH	130 or MATH 230	Advanced Algebra/Analytical Trigonometry Analytical Geometry & Calculus 2	4 or 5	MATH1770	
CHEM	121	General Chemistry 1	5	CHEM1170	
CHEM	122	General Chemistry 2	5	CHEM1180	
CHEM	321	Organic Chemistry 1	5	CHEM2260 + 2270 + 2280	
CHEM	322	Organic Chemistry 2 (Macomb course sequence equals both FSU's CHEM321 & 322. All courses in sequence must be taken to receive credit.)	5		
CHEM	364	Biochemistry	4		
PHYS	211/212	Introductory Physics 1 & 2	8	PHYS1160 or PHYS1180 + PHYS1170 or PHYS1190	
PHYS	241/242	OR General Physics 1 & 2	10	PHYS2220 + PHYS2230	
<b>APPLICATION AREA – 8 Credit Hour Minimum: Consult Faculty Advisor for Course Selection</b>					

<b>COMPUTER COMPETENCE:</b>					
ISYS	105	Microcomputer Applications (recommended)	3	CORE1060	

General Education: All Students must complete the General education associated with this degree. Some courses listed in the major program requirements also satisfy general education requirements. Listed below are general education requirements not satisfied in the programs major area.

FSU General Education requirements are available on the FSU web site at:

<http://www.ferris.edu/htmls/academics/gened/gened.html>.

Listings of FSU courses that will satisfy these requirements are available on the FSU web site at:

<http://www.ferris.edu/htmls/academics/gened/courses.html>.

Equivalencies for FSU courses at your school may be found on the FSU web site at:

<http://www.ferris.edu/admissions/Tranfer/WebPages/homepage1.cfm>

<b>Remaining General Education Requirements not fulfilled in the major: minimum 27 credits</b>					
ENGL	150	English 1	3	ENGL1180 or ENGL1210	
ENGL	250	English 2	3	ENGL1190 or ENGL1220	
Choose 1:		ENGL 311 Advanced Technical Writing	3		
		ENGL 321 Advanced Composition			
		ENGL 323 Proposal Writing			
		ENGL 325 Advanced Business Writing			
		Cultural Enrichment Elective	3		
		Cultural Enrichment Elective	3		
		Cultural Enrichment Elective – 200 level or higher	3		
		Social Awareness Elective – Foundation	3		
		Social Awareness Elective – Second Subject Area	3		
		Social Awareness Elective – 200 level or higher	3		
		Race/Ethnicity/Gender – to be taken as one of the Cultural Enrichment or Social Awareness courses			
		Global Consciousness – to be taken as one of the Cultural Enrichment or Social Awareness courses			
<b>Electives: to the minimum 121 credits required for this degree</b>					
MGMT	310	Small Business Management (recommended)	3	MGMT1210	