- •Use this major checksheet as a guide for selecting classes
- •REFER to DEGREE AUDIT in Student Planning to review and monitor degree and graduation requirements.

#### Core Curriculum:

Economics: 3 hours. Choose one of the following courses:					
ECON 189 Core Seminar in Economics					
ECON 201 Principles of Macroeconomics					
Course Hours Grade Term					

English/Writing: 3 hours.			
Course	Hours	Grade	Term
ENGL 103 Introductory Writing	3		

English/Literature: 3 hours. Choose one of the following courses:				
ENGL 189 Core Seminar in Literature (pre: ENGL 103)				
ENGL 202 American Literary Experience (pre: ENGL 103)				
ENGL 203 World Literature (pre: ENGL 103)				
ENGL 204 British Literary Experience I (pre: ENGL 103)				
ENGL 206 British Literary Experience II (pre: ENGL 103)				
Course Hours Grade Term				

Fine Arts: 3 hours. Choose a single course or combination of courses from the following disciplines to total a minimum of three credit hours; includes core seminars:						
Art (ART)	Art (ART) Film (FVA)					
Art History (ARH)	Music (MUS)					
Dance (DANC)	Theatre Arts (THEA)					
Course	Hours Grade Term					

Global Studies: 3 hours. Choose o	ne of the	following	options:		
Bachelor of Science degree:					
Option #1 - One (1) foreign lang	guage co	urse or e	quivalent		
at the 102 level					
or					
Option #2 - One (1) Internationa	Option #2 - One (1) International Studies (IS) course at the				
300-level (pre: ENGL 103 & soph status)					
Course	Hours	Grade	Term		

History: 3 hours. Choose one HIST	course a	at the 100	or 200 level:
Course	Hours	Grade	Term
Humanities: 3 hours. Choose one ENGL/literature core requirement).	HUM cou	rse (pre:	ENGL 103 &

Laboratory Science: 4 hours. Requirement fulfilled in major.

Mathematics: 3-4 hours. Requirement fulfilled in major.

Philosophy: 3 hours. Choose one of the following courses:				
PHIL 101 Introduction to Philosophy				
PHIL 189 Core Seminar in Philosophy				
PHIL 212 Ethics				
Course Hours Grade Term				

Social Science: 3 hours. Choose one of the following courses:			
GEOG 189 Core Seminar in Geography			
GEOG 200 World Geography			
POL 189 Core Seminar in Political Science			
POL 205 American National Government & Politics			
POL 208 International Politics			
PSYC 189 Core Seminar in Psychology			
PSYC 201 Introductory Psychology			
SOC 189 Core Seminar in Sociology			
SOC 203 Introductory Sociology			
Course Hours Grade Term			

1	Technology: 3 hours. Choose one of the following courses:				
	CS 150 Personal Productivity Using Technology				
	DSIM 203RI Applied Business & Economic Analysis				
	MUS 150 Intro to Music Technology (pre: MUS 141; co: MUS 142)				
	XXX xxx Technology Intensive (TI) course in the major approved				
	by the department as an equivalent				
	Course Hours Grade Term				
	3				

#### Notes:

- •Students must earn a minimum grade of "C-" in ENGL 103 and should complete this introductory writing course in their 1st year of enrollment.
- •All students enrolled in ENGL 103 must pass an Exit Exam at the end of the term. Students not passing this exit exam are required to enroll in ENGL 214WI prior to reaching 60 hours. It is not necessary to pass this exam in order to pass ENGL 103. ENGL 214WI counts as an elective course.
- •Students not qualified to begin at the ENGL 103 level may be required to take ENGL 101 prior to enrolling in ENGL 103. The hours earned for ENGL 101 will count as elective hours in the degree program.
- •It is recommended that students complete the Technology, Mathematics, and foreign language (if applicable to degree chosen) requirements by end of their sophomore year
- •Placement in a "Core" Mathematics course assumes the student is qualified beyond the MATH 104 level. If not, students may be required to take MATH 100 and/or MATH 104 prior to enrolling in a higher level Mathematics course. The hours earned for MATH 100 and/or MATH 104 will count as elective hours in the degree program.
- Placement in foreign language is determined by previous college background and/or foreign language placement test.

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Major Requirements

Biology Major Core Courses: 19 hours.					
Course	Hours	Grade	Term		
BIOL 180 Biological Diversity	4				
BIOL 190 Biological Unity	3				
BIOL 223SI Oral Presentations in Biological Sciences (pre: "C" or better in either BIOL 180, or BIOL 190, or MSC 111 & 112, or MSC 113 & 114)	3				
BIOL 280 Methods Field Biology (pre: "C" or better in BIOL 180, ENGL 103, CS 150)	3				
BIOL 290 Basic Lab Techniques (pre: "C" or better in BIOL 190, CS 150, ENGL 103, and CHEM 104 or 205/L)	3				
BIOL 470 BIOL & MSC Capstone (pre: "C" or better in BIOL 223SI, BIOL 280, BIOL 290, & 10 hours of upper division BIOL courses.	3				

Allied Courses: 32 hours.			
Course	Hours	Grade	Term
CHEM 103 or 204/L General Chem I (pre: "C" or better in MATH 104 or placement in a core Math course)	4		
CHEM 104 or 205/L General Chem II (pre: "C" or better in CHEM 103 or 204/L)	4		
CHEM 301 Organic Chemistry I (pre: "C" or better in CHEM 104; co: CHEM 301L)	4		
CHEM 302 Organic Chemistry II (pre: "C" or better in both CHEM 301 & 301L.; co: CHEM 302L)	4		
MATH 140 Calculus I (pre: "C" or better in MATH 110)	4		
MATH 206 Statistical Methods Sci (pre: "C" or better in MATH 110, 112 or 140)	4		

# Choose one of the following Physics combinations:

PHYS 111 Principles of Physics I (co: MATH 110 or 112) and PHYS 112 Principles of Physics II (pre: PHYS 111)

#### OR

PHYS 151 General Phys: Mechanics(pre:MATH 140;co: MATH 141) and PHYS 152 General Physics: Electricity & Magnetism (pre: MATH 141 & "C" or better in PHYS 151)

#### OR

PHYS 151 General Phys: Mechanics(pre:MATH 140;co: MATH 141) and PHYS 112 Principles of Physics II (pre: PHYS 111)

Course	Hours	Grade	Term
PHYS	4		
PHYS	4		

Additional upper division Biology courses: 15 hours, one course must be **Writing Intensive** (WI)-see notes section for complete WI requirements:

Choose three (3) 300 or 400 level 4-credit hour BIOL lab courses \* cannot include independent study or internship

#### AND

Choose 3 hours of 300 or 400 level BIOL credits # # can include independent study or internship

Course	Hours	Grade	Term
BIOL	4		
BIOL	4		
BIOL	4		
BIOL			
BIOL			

#### Notes:

- For students that double major in Biology and Chemistry (Biochemistry track), only courses that are specifically required for moth majors may be counted towards both majors. Upper division electives may not be counted toward both majors simultaneously.
- Students double majoring in Biology and Marine Science must take all of the required courses for each major.
- Student may not double major in Biology and Life Science.
- Two writing intensive (WI or WR) courses must be completed with a minimum grade of "C-". One must be a 300- or 400-level BIOL course; the other WI course may be from any discipline.
- A minimum grade of "C" is required of Biology major in the following courses: BIOL 180, BIOL 190, BIOL 223SI, BIOL 280, BIOL 290, and BIOL 470.
- A minimum grade of "C" is required of Biology major in allied courses: PHYS 111, PHYS 112, PHYS 151, PHYS 152, MATH 140, MATH 206, CHEM 103 or 204/L, CHEM 104 or 205/L, CHEM 301/L, and CHEM 302/L.
- Biology majors must take an exit exam designated by the department during their senior year or as part of BIOL 470.

# 2<sup>nd</sup> Writing Intensive course: 2nd Writing Intensive course from any discipline IF student does not choose both from Biology Course Hours Grade Term

# 2019-2020 JU Catalog: BIOLOGY

# **Major Requirements**

### Continued.....

General Electives: Additional hours needed to total 120 hours for degree: approximately 21 – 24 hours for Biology majors.				
Course	Hours	Grade	Term	

# Experiential Learning Requirement: 3 hours.

- - Internship
  - Study Abroad, JU 409 required co-requisite

Service Learning, JU 408 required co-requisite
 A grade of "C" or better is required in the Experiential Learning course.
The Experiential Learning course may be a course from the University

Core Curnculum, major, minor, or elective courses.				
Course	Hours	Grade	Term	
XXX xxx	3			

Additional General Requirements for all Baccalaureate De Indicate with "( $$ )" that requirement is met.	grees.
120 hours(minimum) required for degree ( )	
Final 30 hours must be completed at JU ( )	
12 hours in major courses 300 level or above ( )	)
must be completed at JU	
42 hours must be 300 level or above ( )	)
QEP-Experiential Learning course (3 hours) required for a	II majors,
satisfied by a core, major, minor or elective course ( )	)
Cum 2.00 GPA in all coursework at JU ( )	)
Cum 2.00 GPA in major area coursework at JU ( )	
Cum 2.00 GPA in minor area coursework at JU ( )	