

**LIBERAL ARTS AND SCIENCES: BACHELOR OF SCIENCE
MARINE SCIENCE/BIOLOGY TRACK**

VI. MAJOR PROGRAM: 42-43 S.H.		
A. Required MAR: 27 S.H. (Notes 1-4)	Gr.	S.H.
MAR 110 Intro. To Oceanography		3
MAR 226 Marine Biology		3
Method-Intensive Field Course (Note 3)		3
MAR 2xx Sophomore Seminar		1
MAR 364 Physical Oceanography		3
MAR 366 Marine Geology		3
MAR 370 Research in Mar. Sci OR MAR 390 Internship in Mar. Sci.		3
MAR 380 Senior Seminar		2
Science Elective (Note 4)		3
Science Elective (Note 4)		3
B. Required BIO: 15-16 S.H. (Notes 1, 2)		
BIO 224 Applied Environ. Micro.		3
BIO/MAR Organism course 200 level or above, such as BIO/MAR 342 Ichthyology, MAR 260 Marine Invertebrates		3
BIO/MAR Ecology course 200 level or above, such as BIO/MAR 326 Marine Ecol or BIO/MAR 320 Physio. Ecology		3
BIO physiology course 200 level or above, such as BIO 300 Comp. Animal Physiology or BIO/MAR 320 Physiological Ecology		3
BIO 108 Botany or BIO elective 200-level or above		3-4
VII. CONCOMITANT COURSES: 44-45 S.H.		
A. BIOLOGY 8 S.H.		
BIO 104 Principles of Biology		4
BIO 106 Intro. to Zoology		4
B. CHEMISTRY: 15-16 S.H.		
CHM 100 General Chemistry I		4
CHM 102 General Chemistry II		4
CHM 214VL Organic Chemistry I		4
CHM 216WI Organic Chem. II OR CHM 220QLWI Environmental Analysis		3
C. GEOGRAPHY: 3 S.H.		
GEG 204 Meteorology OR GEG 274QL Geo. Info. Sys. I OR GEG 347 Remote Sensing		3
D. GEOLOGY: 4 S.H.		
GEL 100 Physical Geology		4
E. MATHEMATICS: 6 S.H.		
MAT 140QL Applied Statistics OR PSY 200QL Stats. Soc. & Behav. Sci. (Note 5)		3
MAT 106 Trigonometry OR MAT 115 Precalculus OR MAT 171 Calculus I or higher		3
F. PHYSICS: 8 S.H.		
PHY 040 General Physics I OR PHY 100 Physics I		4
PHY 042 General Physics II PHY 102 Physics II		4

VIII. GRADUATION CLEARANCE		
A. Cumulative Q.P.A.		_____
B. Total Semester Hours		
a. General Education		_____
b. Major Program		_____
c. Concomitant		_____
GRAND TOTAL		_____
C. Comprehensive Exam Passed	yes	no
Advisor's Signature _____		
Date _____		

NOTES	
**PSY 011 & SOC 010 are prerequisites to most other courses in their respective disciplines.	
***GEG -- Non-laboratory courses only allowed in this category.	
1. Required courses may be used to satisfy Gen. Ed. Cat. IV, A, B, C, D and/or Cat. V.	
2. Courses in this category may be used to satisfy the minimum of 9 SH that must be taken at the Marine Science Consortium, Wallops Island, VA. However, students are encouraged to take more courses at the MSC to fulfill the electives.	
3. Methods courses are offered at the Marine Science _____ be approved by the MAR Program Coordinator.	
4. Biology or Physical Science course at 200 level or above.	
5. PSY 011 is a prerequisite for PSY 200.	
6. A minimum of 120 s.h. are required for graduation.	

Program Code: ULASMARBI
Effective Date of Program: Fall 2011
Reviewed: 10/2010

STUDENT:



STUDENT ID NUMBER:

COLLEGE OF LIBERAL ARTS & SCIENCES • BS • MARINE SCIENCE/BIOLOGY

Program Code **ULASMARBI**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)				
Computer-Intensive (CP) (3 credits)				
COURSE:	3			
C. Visual Literacy (VL) (3 credits)				
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

B.S. Marine Science/Biology Suggested 4-Year Schedule

Freshman Year¹

Fall Semester	Cr
MAR 110 Intro. to Oceanography	3
BIO 104 – Principles of Biology	4
PSY 11	3
Gen Ed Course	3
Total	13

Spring Semester	Cr
GEL 100 Physical Geology	4
BIO 106 – Intro to Zoology	4
GEG 10	3
Required Math ²	3
Total	14

Sophomore Year¹

Fall Semester	Cr
CHM 100 General Chemistry I	4
MAR 210 Sophomore Seminar	1
PHY 40 or 100	4
Gen Ed Course (wi)	3
Gen Ed Course	3
Total	15

Spring Semester	Cr
CHM 102 General Chemistry II	4
PHY 42 or 102	4
BIO 226wi Marine Biology	3
Required Math ³	3
Total	14

Junior Year¹

Fall Semester	Cr
CHM 214vi Org. Chem. I	4
BIO 224 – Appl. Env. Micro.	3
BIO Ecology course ⁴	3
Gen Ed Course	3
Total	13

Spring Semester	Cr
CHM 216wi Org. Chem. II	4
MAR 364 or 366 ⁵	3
BIO Physiology or BIO elective ⁶	3
Gen Ed Course	3
Total	13

Senior Year¹

Fall Semester	Cr
MAR 370 or 390	3
Science elective ⁷	3
GEG 274 CPQL	3
Gen Ed Course (CT)	3
Gen Ed Course	3
Total	15

Spring Semester	Cr
MAR 380 - Senior Seminar	2
BIO Physiology or BIO elective ⁶	3
MAR 364 or 366 ⁵	3
Gen Ed Course (CD)	3
Gen Ed Course	3
Total	14

¹Three summer field courses at the Chincoteague Bay Field Station are required for graduation and can be used to fulfill the Methods-Intensive course, as well as the Organism course and a Science elective. These can be scheduled any summer following freshman year with 1, 2 or all 3 in any given summer.

²See required courses on track sheet. Note: **MAT 105** is a prerequisite for **MAT 106, MAT 140, and MAT 150**.

³Prerequisites of MAT 017 or higher and PSY 11 Intro. to Psychology are required for PSY 200 (Statistics for the Social and Behavioral Sciences).

⁴One ecology course (**BIO 244, 320, 322, 326, 332, or 358**) is required.

⁵Offered alternate spring semesters MAR 364 Physical Oceanography (odd)/MAR 366 Marine Geology (even).

⁶One physiology course (**BIO 228, 232, 300, or 320**) and one BIO Elective are required.

⁷One BIO or Physical Science elective at the 200 or above is required.