

KEAN UNIVERSITY  
 COLLEGE OF NATURAL, APPLIED & HEALTH SCIENCES  
 SCHOOL OF ENVIRONMENTAL AND SUSTAINABILITY SCIENCE  
 (70301) B.S. IN BIOLOGY, ENVIRONMENTAL BIOLOGY OPTION - 120 S.H.  
 2.5 G.P.A. Graduation Requirement

EFFECTIVE DATE: Fall 2015

START TERM:

NAME:		TRANSFER INSTITUTIONS (X) Credits:	
STUDENT ID#:		In Progress	
<b>GENERAL EDUCATION: 35 Semester Hours (S.H.)</b>		<b>ACADEMIC MAJOR REQUIREMENTS: 28-29 S.H.***</b>	
<b>Foundation Requirements 13 S.H.</b>			
GE 1000 Transition to Kean <sup>2</sup>	1	ENV 1000 Introduction to Environmental Science	3
***ENG 1030 College Composition <sup>1</sup>	3	ENV 2000 Evolution and Biodiversity	4
**MATH 1054 Precalculus <sup>3</sup>	3	ENV 2100 Ecosystem Science	4
COMM 1402 Speech Communication*	3	ENV 3051 Field Biology: Terrestrial Systems <i>or</i>	4
GE 2024 Research & Technology*	3	ENV 4605/OCEN 4601 Methods in Marine Research	4
		ENV 3100 Principles of Environmental Soil Science	4
		ENV 3201 Biodiversity Assessment	4
<b>Disciplinary &amp; Interdisciplinary Distribution Requirements</b>		ENV 4210 Conservation Biology	4
<b>Humanities: 6 S.H. (from different areas)</b>		ENV 4961 Independent Study in SESS (1 credit) <i>or</i>	1-2
ENG 2403 World Literature*	3	ENV 4962 Independent Study in SESS (2 credits)	
<b>Select one course with advisement from areas below:</b>			
Fine Arts/Art History	3	<b>PROGRAM FOCUS-RELATED ELECTIVES 16-19 S.H.</b> To be selected with advisement from approved program list maintained in the School of Environmental and Sustainability Sciences and in consultation with the Program Coordinator. At least 50% must be at the 3000-4000 level. Maximum of 12 S.H. of ENV courses count toward degree.	
Foreign Languages (Must take I and II for credit)	3		
Interdisciplinary	3		
Music or Theatre	3		
Philosophy or Religion	3		
<b>Social Sciences: 6 S.H. (from different areas)</b>			
HIST 1000 Civil Society in America* <i>or</i> HIST 1062 Worlds of History: Traditions and Encounters*	3		
<b>Select one course with advisement from areas below:</b>			
Economics or Geography	3		
Interdisciplinary	3		
Political Science	3		
Psychology	3		
Sociology or Anthropology	3		
		<b>FREE ELECTIVES: 5-9 S.H.</b>	
<b>Science and Mathematics: 7 S.H.</b>			
MATH 1016 Statistics**	3		
***CHEM 1083	4		
<b>G.E. and Major Capstone: 3 S.H.***</b>			
SUST 4300 Independent Practicum in Sustainability	3		
<b>ADDITIONAL REQUIREMENTS: 32 S.H.</b>			
BIO 1300 Biology I	4		
BIO 1400 Biology II	4		
BIO 3709 Genetics	4		
***CHEM 1084 Chemistry II	4		
***CHEM 2180 Principles of Organic Chemistry	4		
MATH 2415 Calculus I	4		
PHYS 2091 Physics I	4		
PHYS 2092 Physics II	4		
*G.E. required course		<b>Other Transfer:</b>	
**Course required by SESS.		<b>TOTAL CREDITS:</b>	
***Must earn a grade of C or better		<b>Advisor Signature:</b>	
<sup>1</sup> See prerequisites and equivalencies.			
<sup>2</sup> Required of all Freshmen and Transfer students with fewer than 10 credits.			
<sup>3</sup> A student whose qualifying score on the placement test makes them eligible to take MATH 2415 may start with that course instead. In that case, the student may take 3 additional credits of free electives instead of MATH 1054 to total 120 credits.			

**Program-focus Related Electives** should be chosen from the following list  
(at least half being at 3000 level and above)

**ATMS**

ATMS 3380 Meteorological Instrumentation  
ATMS 4101 Physical Climatology

**BIO**

BIO 2500: Principles of Botany  
BIO 3305: Principles of Microbiology  
BIO 3400: Zoology: Form and Function  
BIO 3403-3404: Anatomy and Physiology I & II  
BIO 3535: Field Botany  
BIO 3614: Principles of Ecology  
BIO 4105: Biochemistry  
BIO 4575: Plant Physiology  
BIO 4615: Applied Ecology

**CHEM**

CHEM 2581: Organic Chemistry I  
CHEM 2582: Organic Chemistry II  
CHEM 2583: Organic Chemistry Laboratory and Recitation I  
CHEM 2584: Organic Chemistry Laboratory and Recitation II  
CHEM 3581: Biochemistry

**ENV**

ENV 3201 Biodiversity Assessment  
ENV 3250 Medicinal Botany  
ENV 3230 Urban Ecology  
ENV 4210 Conservation Biology  
ENV 4435 Behavioral Ecology  
ENV 3720 Entomology  
ENV 4600 Plant-Animal Interactions  
ENV 4710 Physiological Ecology  
ENV 4971,2,3,4 Independent Research

**ES**

ES 3000 Global Climate Change and Society  
ES 3010 Data Analysis and Modeling in Earth Science  
ES 3020 Aerial Photography and Digital Image Interpretation  
ES 3200 GIS in Geoscience  
ES 3801-3802 Special Topics in Earth Science  
ES 4200 Remote Sensing  
ES 4901-4902 Special Topics in Earth Science

**GEOG**

GEOG 2020 Conservation of Natural Resources  
GEOG 3110 Practical Geographic Skills  
GEOG 3410 Urban Geography  
GEOG 3420 The Resource Base and the Urban Pattern

**GEOL**

GEOL 1201 Geologic Hazards  
GEOL 1202 Geologic Hazards Laboratory  
GEOL 1205 Mineral and Fossil Fuel Resources  
GEOL 1210 Geology of the National Parks  
GEOL 2262 Geology and the Environment

**GEOS**

GEOS 1100: Introduction to Earth and Geographic Systems  
GEOS 2100: Geo-Hydro Systems  
GEOS 4103 Environmental Hazards  
GEOS 4201 Urban Geographic Systems  
METR 2300 Climatology  
METR 2301 Climatology Lab  
METR 3360 Air Pollution  
METR 2310 General Meteorology  
METR 2360 Weather Analysis METR 5300 Atmospheric Storms

**OCEN**

OCEN 3400 Global Change and the Ocean  
OCEN 3463 Marine Science  
OCEN 3600 Coral Reefs and Coastal Systems  
OCEN 4470 Physical Oceanography  
OCEN 4600 Marine Conservation  
OCEN 4601 Field Methods in Marine Research  
OCEN 4602 Marine Resource Management

**SUST**

SUST 1000 Introduction to Sustainability  
SUST 2008 Introduction to Composting  
SUST 2200 Introduction to Laws and Sustainability  
SUST 3200 Environmental Health and Safety for Sustainability  
SUST 4000 Technologies for Sustainability