

**KEAN UNIVERSITY – COLLEGE OF NATURAL, APPLIED & HEALTH SCIENCES**  
**(76205) B.S. IN Earth Science (ENVIRONMENTAL SCIENCE Option): 125 S.H.**  
**EFFECTIVE DATE: Fall 2014**

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**START TERM:**

NAME:		TRANSFER INSTITUTIONS (X) Credits:	
STUDENT ID#:		In Progress	
<b>GENERAL EDUCATION: 32 Semester Hours (S.H.)</b>		<b>ACADEMIC MAJOR REQUIREMENTS: 38 S.H.***</b>	
<b>Foundation Requirements<sup>1</sup> 13 S.H.</b>		GEOS 1100 Intro to Earth and Geog. Sys.	4
G.E. 1000 Transition to Kean <sup>2</sup>	1	SUST 1000 Intro to Sustainability Science	3
ENG 1030 Composition <sup>3</sup>	3	GEOS 2101 Geo-Hydro Systems	4
MATH 1054 Precalculus**	3	ES 2200 Methods in Geoscience	4
COMM 1402 Speech Communication*	3	OCEN 2400 Intro Oceanography	4
GE 2024 Research & Technology*	3	ATMS 3101 Atmo System	4
		ES 3200 GIS in Geoscience	4
<b>Disciplinary &amp; Interdisciplinary Distribution Requirements</b>		BIO 3614 Principles of Ecology	4
<b>Humanities: 6 S.H. (from different areas)</b>		ENV 3050 Field Biology: Marine Systems or	4
ENG 2403 World Literature*	3	ENV 3051 Field Biology: Terrestrial Systems	
<b>Select one course from below approved GE humanities courses</b>			
Fine Arts/Art History	3		
Foreign Languages (Must take I and II for credit)	3	<b>Major Capstone: 3 S.H. ***</b>	
Interdisciplinary	3	ES 4981 Environmental Issues Seminar (WE)	3
Music or Theatre	3		
Philosophy or Religion	3		
<b>Social Sciences: 6 S.H. (from different areas)</b>		<p style="text-align: center;"><b>PROGRAM FOCUS-RELATED ELECTIVES 15 S.H.</b>  <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 Coordinators and advisors toward their degree.</b></p> <p style="text-align: center;">Students will be advised to take appropriate courses that match their career interests and preparation. These courses will be pulled from ENV, BIO, ES, GEOS, ATMS, GEOL, METR, OCEN as well as related programs at KU (at least 50% must be 3000/4000 level)</p>	
HIST 1000 Civil Society in America* or HIST 1062 Worlds of History: Traditions and Encounters*	3		
<b>Select one course from below approved GE Social Science courses</b>			
Economics or Geography	3		
Interdisciplinary	3		
Political Science	3		
Psychology	3		
Sociology or Anthropology	3		
<b>Science and Mathematics: 7 S.H.</b>			
MATH 1016 Statistics	3		
CHEM 1083 Chemistry I ****	4		
<b>ADDITIONAL REQUIREMENTS: 31 S.H.</b>		<b>FREE ELECTIVES: 9 S.H.</b>	
BIO 1300 General Biology I	4		
BIO 1400 General Biology II	4		
CPS 1231 Fundamentals of Computer Science	4	<b>Other Transfer:</b>	
CHEM 1084 Chemistry II	4	<b>Special Notes:</b> *G.E. required course **Required by SESS; pre-req is MATH 1000 which may be used as a free elective by students needing to take MATH 1000 first ***All Major courses require a grade of B or better ****Must earn a grade of C or better to advance to CHEM 1084	
ENV 1000 Intro to Environmental Science	3		
MATH 2415 Calculus I	4		
PHYS 2091 Physics I	4		
PHYS 2092 Physics II	4		
<sup>1</sup> See prerequisites and equivalencies. <sup>2</sup> Required of all Freshmen and Transfers with fewer than 10 credits. <sup>3</sup> Eng 1030 requires a grade of C or better Note: See foreign language requirements		<b>TOTAL CREDITS:</b>	
		<b>Advisor:</b>	
		<b>Advisor Signature:</b>	

**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 4615 Applied Ecology

**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 3801-3802 Special Topics in Earth Science  
ES 4200 Remote Sensing  
ES 4901-4902 Special Topics in Earth Science  
ES 4980 Environmental Internship

**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  
GEOL 2263 Geology and the Environment Lab  
GEOL 3265 Geomorphology  
GEOL 3266 Hydrology

**GEOS**

GEOS 4103 Environmental Hazards

GEOS 4201 Urban Geographic Systems

**METR**

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