SYLLABUS

DATE OF LAST REVIEW: 02/2013
CIP CODE: 24.0101
SEMESTER: Departmental Syllabus
COURSE TITLE: Environmental Geology Lab
COURSE NUMBER: BIOL-0156
CREDIT HOURS: 1.0
INSTRUCTOR: Departmental Syllabus
OFFICE LOCATION: Departmental Syllabus
OFFICE HOURS: Departmental Syllabus
TELEPHONE: Departmental Syllabus
EMAIL: Departmental Syllabus

KCKCC issued email accounts are the official means for electronically communicating with our students.

PREREQUISITE(S): BIOL-0155 should be taken concurrently

REQUIRED TEXT AND MATERIALS: Please check with the KCKCC bookstore, http://www.kckccbookstore.com/, for the required texts for your particular class

COURSE DESCRIPTION:
This course introduces the interrelationships within and between geologic processes and the environment. The student will get hands on experience collecting, analyzing and interpreting data.

METHOD OF INSTRUCTION: A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, panels, conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.

COURSE OUTLINE: (the instructor may add and/or delete material as time permits.)

I. Energy
II. Matter cycling
III. Geology
IV. plate tectonics, volcanism, earthquakes
V. the rock cycle, soil formation
VI. Renewable and Nonrenewable Resources
VII. Hydroponics and Aquaculture
VIII. Environmental Quality
IX. Tolerance levels and Toxicology
EXPECTED LEARNER OUTCOMES:

A. The learner will acquaint the student with the methods of science, especially as they relate to environmental science.

B. The learner will encourage an understanding of the complexities and interrelationships living organism have with each other and with their environment.

C. The learner will promote the value of critical thinking both during and after the class.

COURSE COMPETENCIES: (Based upon material covered, which is determined by the instructor taking into account time, opportunity and current events in environmental science)

The learner will acquaint the student with the methods of science, especially as they relate to environmental science.

The learner will encourage an understanding of the complexities and interrelationships living organism have with each other and with their environment.

1. The learner will be able to make a measurement of Abiotic factors.
2. The learner will be able to make a collection of qualitative and quantitative data.
3. The learner will be able to propose and support hypotheses.
4. The learner will be able to interpret data.
5. The learner will be able to make a comparison of experimental results to a control.
6. The learner will be able to graph data.
7. The learner will be able to describe the theory of plate tectonics and its relationship to earthquakes and volcanic activity.
8. The learner will be able to identify the general effects of volcanic eruptions and their relationship to weather patterns.
9. The learner will be able to describe the effects of mechanical and chemical weathering of rock.
10. The learner will be able to relate the physical and chemical processes involved in rock weathering to soil formation.

The learner will promote the value of critical thinking both during and after the class.

11. The learner will be able to identify the horizons in a soil profile.
12. The learner will be able to describe soil characteristics.
13. The learner will be able to identify the chemical composition of soil.
14. The learner will be able to analyze energy consumption data and calculate monthly and/or annual costs.
15. The learner will be able to collect and measure the pH of water samples from various sources and compile pH data over an extended period of time.

ASSESSMENT OF LEARNER OUTCOMES:
Student progress is evaluated by means that include, but are not limited to, exams, written assignments, and class participation.

SPECIAL NOTES:
This syllabus is subject to change at the discretion of the instructor. Material included is intended to provide an outline of the course and rules that the instructor will adhere to in evaluating the student’s progress. However, this syllabus is not intended to be a legal contract. Questions regarding the syllabus are welcome any time.

Kansas City Kansas Community College is committed to an appreciation of diversity with respect for the differences among the diverse groups comprising our students, faculty, and staff that is free of bigotry and discrimination. Kansas City Kansas Community College is committed to providing a multicultural education and environment that reflects and respects diversity and that seeks to increase understanding.

Kansas City Kansas Community College offers equal educational opportunity to all students as well as serving as an equal opportunity employer for all personnel. Various laws, including Title IX of the Educational Amendments of 1972, require the college’s policy on non-discrimination be administered without regard to race, color, age, sex, religion, national origin, physical handicap, or veteran status and that such policy be made known.

Kansas City Kansas Community College complies with the Americans with Disabilities Act. If you need accommodations due to a documented disability, please contact the Director of the Academic Resource Center at 913-288-7670.