

Principles of Sustainability

Syllabus

Code: ENVR 108

Title: Principles of Sustainability

Institute: STEM

Department: Environmental Science

Course Description: Sustainability involves meeting basic human needs without undermining human communities, culture, or natural environments. This difficult goal requires recognition of the complex interrelationships among environmental, economic, and social forces and reexamination of our relationships to technology, natural resources, natural science, human development and/or local to global politics. Students will be introduced to a variety of topics including climate change and environmental pollution, economic globalization, north-south disparity, local and global strategies, agriculture and sustainable food production, environmental ethics and history, and social justice. The course facilitates deeper student exploration of complex interrelationships among contemporary environmental, social, and economic problems and the solutions to overcome them. In addition, it will help students articulate personal philosophies to guide more sustainable lifestyles (i.e. choices for resource use and other behaviors)

Prerequisites: MATH 021 or MATH 025 or satisfactory completion of the College's foundational studies requirement in algebra, and READ 092 or READ 095 or satisfactory completion of the College's foundational studies requirement in reading.

Credits: 3

Lecture Hours: 3

Lab/Studio Hours: 0

Required Textbook: Contact instructor for textbook information.

Course Learning Outcomes:

Upon completion of this course, students will be able to:

- Define sustainability and understand how concepts of sustainability are connected to issues of social justice, the environment, and the economy at local, regional, and global levels.
- Demonstrate knowledge of key concepts related to the study of sustainability, including planetary carrying capacity, climate change, and ecological footprint.
- Explain how sustainability relates to their lives and their values, and how their actions impact issues of sustainability at the individual, and at local, regional, and global levels.
- Use the scientific method of inquiry to investigate the environmental worldviews, politics and economics driving the human impact.
- Use appropriate verbal and writing skills to communicate details of the scientific method including hypotheses, results and analyses.

Grading:

Grades are based on the total points you earned during the semester. Listed below are the assignments on which you may be graded (assignments may vary by instructor).

Grades will be calculated based on the total points earned / total possible points.

Assessments (2 total):	100 points each
Action to Enhanced Sustainability Project	50 points
Research Paper	40 points
Research Paper Presentation	30 points
Documentary Review	30 points
Article Reviews / Homework	20 points each
Attendance	15 points total

Grading Standard:

Upon completion of the course, grades will be assigned as follows:

<u>LETTER GRADE</u>	<u>NUMERICAL GRADE</u>
A	90 – 100%
A-	88 – 89%
B+	85 – 87%
B	80 – 84%
B-	78 – 79%
C+	75 – 77%
C	70 – 74%
D	60 – 69%
F	less than 60%

Course Content:

Week	Topic
1	Course requirements. Introduction, Sustainability, Ecological Footprint
2	Environmental Systems; Matter, Energy, Ecosystems and Biogeochemical Cycles
3	Evolution, Diversity, Species Interactions
4	Biodiversity and Conservation
5	Human Population
6	Environmental Health and Toxicology
7	Soil, Agriculture and the Future of Food
8	Forests and Forest Management
9	Geology, Minerals and Mining
10	Non Renewable and Renewable Energy Sources
11	Atmospheric Science, Air Quality and Pollution
12	Global Climate Change
13	Managing our Waste
14	Economics, Policy and Sustainability
15	Presentations. Course Conclusion.

Departmental Policies:

Attendance during class sessions is strongly recommended for optimum performance in the course.

Exams will be given in class or the Testing Center at the discretion of the instructor. Exams must be taken at the designated times. A student who misses an exam must provide prior notification and proper documentation in order to take the exam. The course instructor will determine the acceptance of prior notification and proper documentation.

Documentation must be provided within one week of the student's return to the classroom for a make-up exam to be scheduled. A student who is unable to provide proper documentation will be given a grade of zero for the missed exam. Students may not re-take exams on which they perform poorly. Requirements for course completion are listed in individual instructor syllabi.

College Policies:

As an academic institution, Brookdale facilitates the free exchange of ideas, upholds the virtues of civil discourse, and honors diverse perspectives informed by credible sources. Our College values all students and strives for inclusion and safety regardless of a student's disability, age, sex, gender identity, sexual orientation, race, ethnicity, country of origin, immigration status, religious affiliation, political orientation, socioeconomic standing, and veteran status. For additional information, support services, and engagement opportunities, please visit www.brookdalecc.edu/support.

For information regarding:

- ◆ Brookdale's Academic Integrity Code
- ◆ Student Conduct Code
- ◆ Student Grade Appeal Process

Please refer to the [BCC STUDENT HANDBOOK AND BCC CATALOG](#).

NOTIFICATION FOR STUDENTS WITH DISABILITIES:

Brookdale Community College offers reasonable accommodations and/or services to persons with disabilities. Students with disabilities who wish to self-identify must contact the Disabilities Services Office at 732-224-2730 (voice) or 732-842-4211 (TTY) to provide appropriate documentation of the disability, and request specific accommodations or services. If a student qualifies, reasonable accommodations and/or services, which are appropriate for the college level and are recommended in the documentation, can be approved.

ADDITIONAL SUPPORT/LABS:

See the Tutoring Center for information

<https://www.brookdalecc.edu/academic-tutoring/tutoring-center/>.

MENTAL HEALTH:

- Mental Health Crisis Support: From a campus phone, dial 5555 or 732-224-2329 from an external line; off-hours calls will be forwarded to BCC police (2222 from a campus phone)
- Psychological Counseling Services: 732-224-2986 (to schedule an appointment during regular hours)

The syllabus is intended to give student guidance in what may be covered during the semester and will be followed as

closely as possible. However, the faculty member reserves the right to modify, supplement, and make changes as the need arises.