BOSTON COLLEGE SUMMER SESSION

Please note that this syllabus should be regarded as a general guide to the course and is subject to change at the Instructor's discretion.

EESC116301: Environmental Issues and Resources, 3 Credits, HYBRID

Boston College Summer Session 2019

Summer 2, June 25 – August 1

Tuesday, Thursday: 6:00 – 9:15 PM Class location: Devlin Hall 010

Instructor Name: Dr. Kenneth G. Galli

BC E-mail: kenneth.galli@bc.edu

Phone Number: 617-552-4504

Office: 310 Devlin Hall

Office Hours: Tuesday, Thursday: 5:00 – 6:00 PM; by arrangement.

Boston College Mission Statement

Strengthened by more than a century and a half of dedication to academic excellence, Boston College commits itself to the highest standards of teaching and research in undergraduate, graduate and professional programs and to the pursuit of a just society through its own accomplishments, the work of its faculty and staff, and the achievements of its graduates. It seeks both to advance its place among the nation's finest universities and to bring to the company of its distinguished peers and to contemporary society the richness of the Catholic intellectual ideal of a mutually illuminating relationship between religious faith and free intellectual inquiry.

Boston College draws inspiration for its academic societal mission from its distinctive religious tradition. As a Catholic and Jesuit university, it is rooted in a world view that encounters God in all creation and through all human activity, especially in the search for truth in every discipline, in the desire to learn, and in the call to live justly together. In this spirit, the University regards the contribution of different religious traditions and value systems as essential to the fullness of its intellectual life and to the continuous development of its distinctive intellectual heritage.
Course Description:

EESC116301 Environmental Issues and Resources

Course includes three themes: (1) Intro to Environmental Geology, (2) How to be a careful observer, write well, and how to write field trip reports, (3) How to use Google Earth and other online resources to understand earth materials and processes. Learn about the major processes at work inside and on the surface of the earth. Learn to be a careful observer and to write succinct field trip reports, through three field trips and the writing of a field trip report. Each class is designed to examine the facts, historical background and through in-class exercises, homework and field trips, provide experience in analyzing and solving real-world problems associated with environmental issues, resources and sustainability. In-class exercises, demonstrations, videos, readings and several field trips underscore important concepts and applications and the importance of careful observation. Online Google Earth exercise(s), done remotely, will introduce the power of this geographic application to understanding geology.

June 25 - August 1, 2019, Tues, Thurs, 6:00 - 9:15 PM Devlin Hall 010

Dr. Kenneth G. Galli

Textbooks & Readings (Required)

2. Coursepack: EESC116301 Environmental Issues and Resources, 2018, for sale in the Boston College bookstore. Bring this to each class. (Please note: You cannot use previous versions of this Coursepack.)

Textbooks & Readings (Recommended but optional)


Canvas https://bostoncollege.instructure.com/courses/1574163

Canvas is the Learning Management System (LMS) at Boston College, designed to help faculty and students share ideas, collaborate on assignments, discuss course readings and materials, submit assignments, and much more - all online. There is an app for that! Both iPhones and others have Canvas apps. As a Boston College student, you should familiarize yourself with this important tool. For more information and training resources for using Canvas, click here. I also have created a MediaKron Web site for this class that you can access either through a link once you are signed in with
your BC credentials to our Canvas site or directly at: https://mediakron.bc.edu/environmentalissu.

GOOGLE EARTH —
1. Using your browser, go to: http://earth.google.com/

2. Click on Google Earth Pro box; then once the webpage shows, you can download either Google Earth or Google Earth Pro. Click on “download Google Earth Pro” button and the appropriate version will be downloaded to your computer.

3. Follow any on-screen instructions on how to install Google Earth Pro on your system. Usually, a Folder with all you need, including the application(s) is downloaded. This should be done during the first week of class so any issues can be resolved before assignments are issued.

Course Objectives

1. You will gain factual knowledge (terminology, classifications, methods, trends) through the memorization of about ten to twelve terms for each Topic covered.

2. You will learn to apply course material (to improve thinking, problem solving, and decision-making). You will learn about the major processes at work inside and on the surface of the Earth. Each class is designed to give you the facts, a historical background, and through homework, in-class exercises, and several field trips, experience in analyzing and solving real-world problems associated with environmental issues and resources. Tie-ins to key terms and concepts will be aided by reference to portions of John McPhee's book: The Control of Nature and through the use of selected videos on key topics. Geology is best done in the field so our first class will include a field trip to explore Boston College campus and describe some important geological features that we have talked about in class. There are at least two other field trips. You will also learn how to write concise and complete field trip reports and the difference between observations and interpretations. The final exam is on the last scheduled day. The course pack has most lecture material.

3. You will demonstrate knowledge across cultural settings and will learn the impact of culture, gender, and age in environmental geology as demonstrated by aspects of landslides, floods, earthquakes and volcanic eruptions and their effect on humans and human settlements.

4. You will demonstrate ethical knowledge and skill pertaining to making sound decisions as demonstrated by answering questions.

5. By studying increasingly more complex geologic features seen in three field trips you will develop your skills of observation. By writing two field trip reports you will learn how to write effectively and concisely and to separate observations from interpretations. Your experience in the field observing geologic features will aid you in becoming a more thorough observer in your life.
Grading

Attendance and Participation 3%
Campus mini-Field Trip Q&A: 3%
Field Trip Reports: 25% (Glacial Geology Trip: 10%; Sed Rocks Trip: 15%)
Radioactive Decay In-Class Group Exercise: 9%
Google Earth and other online and in-class Exercises: 30%
Comprehensive Final Exam (two hours) 30%

The undergraduate grading system for Summer Session is as follows:
A (4.00), A- (3.67)
B+ (3.33), B (3.00), B- (2.67)
C+ (2.33), C (2.00), C- (1.67)
D+ (1.33), D (1.00), D- (.67)
F (.00)

All students can access final grades through Agora after the grading deadline each semester. Transcripts are available through the Office of Student Services.

Deadlines and Late Work

NOTE: No one can miss more than 1 class and receive full credit. Does not include the 3 remote classes. Work must be submitted on time. Field trips cannot be made up.

Late Work: Work submitted will lose 10% of total value per day late.

No work will be accepted after July 30th.

EESC116301 counts toward the Environmental Studies Minor.
Satisfies Core requirement for Natural Science.
Course Assignment
A minimum of 2 hours per week for every hour of instructional time should be spent on readings and exercises. Please note that some weeks will require more time and some weeks less time.

Using MediaKron to enrich your learning experience allows you to view and comprehend images, text, video, and audio clips in a website that tie our topics in time and space and to compare various aspects of major topics and to allow you to comment on media and to more fully express ideas, philosophy, trends, and examples presented in class and to produce a record of major aspects of earthquake, tsunami, and volcanic hazards through time.

Before each class, you should check the MediaKron web site and view what I call the Topic Openers for that Topic.

Topics we plan to cover:

1. Intro to Environmental Geology, Resources, and Population [Field Trip 1: Geotour of BC Campus] [Introduce Google Earth setup]
2. Earth Materials: Minerals, Rocks, Soils [Field Trip 2: Glacial Geology]
3. (remotely) Plate Tectonics — Google Earth assignment
4. Earthquakes, Tsunami, Their Hazards & Earth’s Interior
5. Volcanoes & Volcanic Hazards
6. (remotely) Landslides and Subsidence — Google Earth assignment
7. (remotely) Stream Processes & Flooding — Google Earth assignment
8. Groundwater & Groundwater Pollution
9. Climate Change
   — August 1 — In-class Final Exam

We will use the Learning Management system called Instructure Canvas.

All course PowerPoints will be posted within Canvas > Modules > ppts. Our syllabus also will be available online.

All Google Earth and online Exercises must be submitted remotely online.
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading/Exercises/Experiences</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/25</td>
<td><strong>Topic 1: INTRO TO ENVIRO GEOLOGY, RESOURCES, POPULATION</strong></td>
<td><strong>Field Trip 1 Report/Sketches</strong> due at start of 6/27 class.</td>
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<tr>
<td></td>
<td>Demo: Basic Rock Types. Campus “Field Trip-Tour” today!</td>
<td>assessing rocks as building materials. (Trip leaves at 6:35, don't be late!)</td>
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<td></td>
<td>[if Rain Delay we will work inside]</td>
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<td></td>
<td>[Please bring your Coursepack to each meeting]</td>
<td>These are videos that go over some important points in a unique way</td>
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<td>6/27</td>
<td><strong>Topic 2: GEOLOGIC MATERIALS: Rocks, Minerals and Soils. Field Trip 2</strong></td>
<td><strong>Demo: mineral crystal shapes, important rock-forming minerals, Rocks</strong></td>
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<td>How to Write a Field Trip Report; <strong>Glacial Geology Field Trip</strong> report due on 7/9</td>
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<td>Reading: Coursepack, Topic Two. MediaKron: Watch Topic 2 Openers</td>
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<td>7/2</td>
<td><strong>NO CLASS MEETING Independent/online work</strong></td>
<td><strong>Topic 3: PLATE TECTONICS</strong></td>
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<td></td>
<td>Reading: Coursepack, Topic Five. MediaKron: watch Topic 3 Openers.</td>
<td>Google Earth Exercise 1 assigned due online 7/9 b/f class</td>
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<td>7/9</td>
<td><strong>Topic 4: EARTHQUAKES, TSUNAMI, THEIR HAZARDS; EARTH’S INTERIOR</strong></td>
<td><strong>Reading: Coursepack, Topic Three.</strong></td>
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<td>7/11</td>
<td><strong>Topic 5: VOLCANOES AND VOLCANIC HAZARDS</strong></td>
<td><strong>Reading: Coursepack, Topic Four. John McPhee: Cooling the Lava.</strong></td>
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<td>In-Class Group Exercise: Radioactive/Exponential Decay due at end of class</td>
<td>MediaKron: watch Topic 5 Openers.</td>
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<td>7/16</td>
<td><strong>NO CLASS MEETING Independent/online work</strong></td>
<td><strong>Topic 6: LANDSLIDES AND SUBSIDENCE</strong></td>
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<td></td>
<td>Google Earth Exercise 2 assigned due online 7/18</td>
<td><strong>Reading: Coursepack Topic Six; John McPhee: Los Angeles Against the Mountains</strong></td>
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7/18 NO CLASS MEETING

Independent/online  Topic 7 STREAM PROCESSES AND FLOODING

Google Earth Exercise 3 assigned due online on 7/23

Reading: Coursepack, Topic Seven.

MediaKron: watch Topic 7 Opener.

7/23 Field Trip 3: Sedimentary Rocks and Lava Flow at Webster Conservation Area report due 7/25

Reading: Coursepack, TOPIC SEVEN. John McPhee: Atchafalaya

MediaKron: watch Topic 7 Openers, look at Map/Description of the Nile River and the Mississippi River Delta.

7/25 Topic 8: GROUNDWATER AND GROUNDWATER POLLUTION

Reading: Coursepack, TOPIC EIGHT.

MediaKron: watch the two Topic 8 Openers: Intro to Groundwater; Case Study: How the Edwards Aquifer Works.

7/30 Topic 9: CLIMATE CHANGE

Reading: Coursepack, TOPIC NINE.

MediaKron: watch Topic 9 Openers

AUGUST 1 — IN-CLASS FINAL EXAM (all must take exams at scheduled time. No exceptions.)
Written Work

Summer Session students are expected to prepare professional, polished written work. Written materials must be typed and submitted in the format required by your instructor. Strive for a thorough yet concise style. Cite literature appropriately, using APA, MLA or CLA style per your instructor’s requirements. Develop your thoughts fully, clearly, logically and specifically. Proofread all materials to ensure the use of proper grammar, punctuation and spelling. For writing support, please contact the Connors Family Learning Center.

Attendance

Attending class is an important component of learning. Students are expected to attend all class sessions. When circumstances prevent a student from attending class, the student is responsible for contacting the instructor before the class meets. Students who miss class are still expected to complete all assignments and meet all deadlines. Many instructors grade for participation; if you miss class, you cannot make up participation points associated with that class. Makeup work may be assigned at the discretion of the instructor. If circumstances necessitate excessive absence from class, the student should consider withdrawing from the class.

Consistent with BC’s commitment to creating a learning environment that is respectful of persons of differing backgrounds, we believe that every reasonable effort should be made to allow members of the university community to observe their religious holidays without jeopardizing their academic status. Students are responsible for reviewing course syllabi as soon as possible, and for communicating with the instructor promptly regarding any possible conflicts with observed religious holidays. Students are responsible for completing all class requirements for days missed due to conflicts with religious holidays.

Accommodation and Accessibility

Boston College is committed to providing accommodations to students, faculty, staff and visitors with disabilities. Specific documentation from the appropriate office is required for students seeking accommodation in Summer Session courses. Advanced notice and formal registration with the appropriate office is required to facilitate this process. There are two separate offices at BC that coordinate services for students with disabilities:
Scholarship and Academic Integrity

Students in Summer Session courses must produce original work and cite references appropriately. Failure to cite references is plagiarism. Academic dishonesty includes, but is not necessarily limited to, plagiarism, fabrication, facilitating academic dishonesty, cheating on exams or assignments, or submitting the same material or substantially similar material to meet the requirements of more than one course without seeking permission of all instructors concerned. Scholastic misconduct may also involve, but is not necessarily limited to, acts that violate the rights of other students, such as depriving another student of course materials or interfering with another student’s work. Please see the Boston College policy on academic integrity for more information.

Expectations:

Behavior:

1. Classroom attendance is a necessary part of this course. You are allowed 2 unexcused absences.
2. Classroom participation is a part of your grade in this course. To participate you must attend class having prepared the materials for the day. Questions and comments must be relevant to the topic at hand.
3. You are expected to be on time. Class starts promptly at 6:00 PM. You should be in your seat and ready to begin class at this time. Class ends at 9:15 PM. Packing up your things early is disruptive to all.
4. Raise your hand to be recognized.
5. Classroom discussion should be civil and respectful to everyone and relevant to the topic we are discussing. Everyone is entitled to their opinion. Classroom discussion is meant to allow us to hear a variety of viewpoints. This can only happen is we respect each other and our differences.
6. Any discussion from class that continues on any listserv or other digital form should adhere to these same rules and expectations. (if applicable)
7. Any continued disruption of class will result in a report to your academic Dean. After one warning, if the disruption continues, you will be asked to leave the
classroom for the remainder of the class and take a zero on any class work that
day. Continued disruption will result in expulsion from the class.
8. You are expected to do your own work. Cheating, plagiarism and any other form of
academic dishonesty will not be tolerated. Please refer
to https://www.bc.edu/schools/cas/polisci/integrity.html for more details.
9. What you can expect from me: I will be prepared for class, on time, I will not leave
early, and I will be respectful of you and your opinion.
10. Please turn off cell phones before you enter the classroom. Although we don’t
discourage use of laptops or tablets during class, please limit the use to taking
notes or reviewing relevant class material. Otherwise, you become a distraction to
your fellow students. If you are using any of these devices for anything other than
class work, you may be asked to leave. If you arrive late (front door of the lecture
hall will be closed), please enter through the back of the lecture hall (if possible).
Also, please do not leave class early unless you have spoken to the instructors in
advance. These requests are both for issues of safety as well as consideration of
your fellow students.

Academic:

• Be prepared
• Do your work well. Do all your work.
• Do your work on time. Take homework seriously.
• Turn in your homework. Try hard.
• Put forth your best effort. Bring all your supplies to class.
• Be ready to learn. Study for tests. Listen actively.
• Listen and learn from others.
• Share your ideas. Finish what you start.
• Reflect on your work. Make good decisions.
• Push yourself beyond the easy. Don’t settle for mediocre work.
• Try new things. Ask for help.

Your learning objectives should include:
  o Gaining factual knowledge – terminology, classifications, methods, trends
  o Learning fundamental principles, generalizations, and theories
  o Learning to apply course material (to improve thinking, problem solving, and
decisions.)
  o Learning how to write well.