ENVIRONMENTAL SCIENCE in Spring 2021 (SC1020B)

Course Code	SC1020B	**Professor(s)**	Elena Berg
Prerequisites	None	**Office Number**	C-202
Class Schedule	F: 10:35-11:55 in C-102 F: 10:35-11:55 in RMOTE-00 T: 15:20-16:40 in C-102 T: 15:20-16:40 in RMOTE-00	**Office Hours**	Monday afternoons, on Teams - by appointment
Credits	4	**Email**	eberg@aup.edu
Semester	Spring 2021	**Office Tel. Ext.**	

Course Description

The course will follow three broad themes: science, sustainability and stewardship. Students will understand the science behind environmental issues and what they can do to build a more sustainable future. Over the course of the semester, students are expected to develop a competent scientific opinion on relevant present day environmental emergencies. Some of these will be local in character, such as urban air/water quality, solid waste disposal, habitat loss, etc., while others are intrinsically global, such as climate change, the ozone hole, and loss of biodiversity.

Course Learning Outcomes

Develop a basic understanding of ecology, sustainability, and the anthropogenic impact on the environment
Students will apply the scientific method to solve problems
Think critically about possible means of preventing, adapting to, or mitigating major threats to the environment
Students will demonstrate written and oral presentation skills to communicate scientific knowledge
Students will demonstrate knowledge of core concepts in a scientific field, interpret scientific data from a variety of sources, apply the scientific method to solve problems, and demonstrate written and oral presentation skills when communicating scientific knowledge (CCS LO)

General Education

This course can be used to fulfill the Experimental Reasoning Course with Lab (coded CCS) requirement of the Global Liberal Arts Core Curriculum. As such it has the following learning outcome (Learning Outcomes for GLACC components are defined on the AUP GLACC Website):

- You will demonstrate knowledge of core concepts in a scientific field, interpret scientific data from a variety of sources, apply the scientific method to solve problems, and demonstrate written and oral presentation skills when communicating scientific knowledge.

Course Outline

Date	**Topic**	**Readings/assignments due that da**
Tues Jan 19	Course introduction	Note: for lectures, we will be **fully onl on Teams** until Fri Feb 12
Fri Jan 22	What is environmental science?	Wright & Boorse Ch. 1 & 2
Tues Jan 26	What is environmental science, continued…	Ch. 1 & 2
Fri Jan 29	Current events: what does the media have to say about environmental racism and environmental justice?	What is in the press? Spend at least a internet to identify and explore “hot” to environmental science. Pay particular questions about **environmental and** What does the media say? From whos How are scientists and politicians resp the implications for our lives? **Before Blackboard (listed under the “Lectu tab)** and be ready to discuss in class.
Tues Feb 2	What is life? **Quiz 1** (environmental science)	Ch. 3
Fri Feb 5	Basic needs of living things;	Ch. 3
Mini break – Mon Feb 8 to Weds Feb 10 – NO CLASS		

Fri Feb 12	Populations and communities	Ch. 4 Note: from today onwards, lectures wi campus in C-102.
Tues Feb 16	Populations and communities, continued…; **Quiz 2** (life, populations, communities)	Ch. 4
Fri Feb 19	Ecosystems: energy, patterns, disturbance	Ch. 5
Tues Feb 23	Ecosystems: energy, patterns, disturbance, continued…; **Quiz 3** (ecosystems)	Ch. 5
Mini break – Weds Feb 24 to Sun Feb 28 – NO CLASS		
Tues Mar 2	Wild species and biodiversity	Ch. 6
Fri Mar 5	Wild species and biodiversity, continued…;	**Deadline for posting your infograph shared excel file – see link on "Info Blackboard**
Tues Mar 9	Midterm exam	
Fri Mar 12	Case study of a conservation success story: The Guanacaste Conservation Area, Costa Rica	Treuer et al 2017 Choi et al 2018
Tues Mar 16	Human population	Ch. 8
Fri Mar 19	Human population, continued…;	Ch. 8
Tues Mar 23	**Quiz 4** (Costa Rica, human population); Water: the water cycle, sources of water	Ch. 10
Fri Mar 26	Water: the bottled water industry;	Watch the 7th episode of your profess zoomcast series on mineral water: https://www.youtube.com/watch?v=rH
Tues Mar 30	**Quiz 5** (water); Fossil fuels	Ch. 14
Fri Apr 2	Fossil fuels, continued…;	Ch. 14
Mini break – Mon Apr 5 and Tues Apr 6 – NO CLASS		

Fri Apr 9	Nuclear power	Ch. 15
Tues Apr 13	Renewable energy **Quiz 6** (energy)	Ch. 16
Fri Apr 16	In-class debate on energy sources	During the last class, you were assign source to debate. Your homework is t arguments in support of (and anticipat assigned source. **Before class, pleas summary of your arguments, and a the sources that you consulted, on "Lecture Assignments."** You will be team members during the first part of ideas, and then we'll meet all together
Mon Apr 19: **Submit your infographic files and Abstract on Blackboard (see "Infographic" tab) AND to my ema (**eberg@aup.edu**) by the end of the day**		
Tues Apr 20	Presentation of infographics	
Fri Apr 23	Presentation of infographics	
Tues Apr 27	Wrap-up and final thoughts	

Textbooks

Title	Author	Publisher	ISBN	Required
Environmental Science: Toward a Sustainable Future, 13E	WRIGHT, Richard T. and Dorothy F. BOORSE	Pearson	9780134011271	Yes

Attendance Policy

CLASSROOM ETIQUETTE AND HEALTH & SAFETY MEASURES:

- **Please come to class prepared: do the reading and be prepared to contribute to class discussion.**
- **Submit all assignments on time.** All assignments are to be submitted on Blackboard. Written assignments submitted late will go down by a proportion of a letter grade for every day late, i.e. A becomes A-, A- becomes B+, etc.
- **Any assignment that is proven to be plagiarised will receive a zero and serious cases will result in an automatic F for the course.** Plagiarism is academic misconduct and a serious breach of university policy. University disciplinary procedures will be carried out in case of infraction.
- Please be respectful of others and **do not use your mobile phones or computers for personal reasons** during class. If you are joining us online or we have to move classes online for any reason, please try your best to find a quiet location where you can focus on the class, without interruption. If at all possible, please turn on your video so we can see everyone's faces during class time. That is a crucial way to create community.
- **Come to class and be on time, regardless of whether we are meeting in person or online. Please, do not be late** unless you have an excellent excuse. If you are more than 10 minutes late to class, you will be marked absent. If you have to be absent from class, please inform me as soon as possible, by e-mail, about the reasons for your absence. If you are late or absent, it is always your responsibility to catch up on any missed material. Four or more unexcused absences will lead to a 0 for the attendance grade. If you miss three consecutive classes, you must explain your absence to Student Affairs, who will then contact me.
- **Special health and safety measures during the reign of COVID-19, once we are back in the classroom Friday Feb 12**:
    - Please, for everyone's safety you must **wash your hands well with soap** before you enter the classroom. You are required to **wear a mask** during all face-to-face classroom time or for individual meetings with me or other students. The mask **must cover your nose and mouth at all times**. No exceptions!
    - Respect social distancing measures! Remain **at least 1 meter** from each other and from your instructor for the duration of the class.
    - Unfortunately, **no food or drink** will be allowed inside the classroom.
    - **If you feel ill, DO NOT COME TO CLASS**. If you are well enough, you can join us online instead. If you experience ANY symptoms consistent with COVID-19 (fever, dry cough, aches and pains, respiratory difficulty), please seek medical help immediately. Make sure to keep me informed, and get a note from the doctor if you have to be absent from class.
    - If you are unable to come to class because you are in **quarantine**, make sure you communicate with me immediately – in that case, please join the class remotely via Teams (at the same time as our class is scheduled). If I am quarantined, I'll tune in via Teams – in that case, either you will all tune in from home, OR you will come to class and project me onto the screen in Teams. We'll discuss the details if/when necessary.

AUP ATTENDANCE POLICY:

Students studying at The American University of Paris are expected to attend ALL scheduled

classes, and in case of absence, should contact their professors to explain the situation. It is the student's responsibility to be aware of any specific attendance policy that a faculty member might have set in the course syllabus. The French Department, for example, has its own attendance policy, and students are responsible for compliance. Academic Affairs will excuse an absence for students' participation in study trips related to their courses.

Covid-19 temporary amendments:

Students studying at The American University of Paris are STILL EXPECTED TO ATTEND ALL SCHEDULED CLASSES. Due to the Covid-19 pandemic, students will have the option of attending classes remotely when special circumstances apply. For example, when students are placed under quarantine by the French authorities or by their doctor, or when students present symptoms of Covid-19 and are directed, by their doctor or the AUP Health Office, to remain home. It is still the student's responsibility to be aware of any specific attendance policy that their professor might have set in the course syllabus. In particular, Students attending remotely from distant Time Zones should check with their professors about the specific attendance policy for remote learners.

Attendance at all exams is mandatory**.** In all cases of missed course meetings, the responsibility for communication with the professor, and for arranging to make up missed work, rests solely with the student.

Whether an absence is excused or not is ALWAYS up to the discretion of the professor or the department. Unexcused absences can result in a low or failing participation grade. In the case of excessive absences, it is up to the professor or the department to decide if the student will receive an "F" for the course. An instructor may also recommend that a student withdraw, if absences have made it impossible to continue in the course at a satisfactory level.

Students must be mindful of this policy when making their travel arrangements, and *especially during the Drop/Add and Exam Periods.*

ENGLISH LANGUAGE PROFICIENCY STATEMENT:

As an Anglophone university, The American University of Paris is strongly committed to effective English language mastery at the undergraduate level. Most courses require scholarly research and formal written and oral presentations in English, and AUP students are expected to strive to achieve excellence in these domains as part of their course work. To that end, professors include English proficiency among the criteria in student evaluation, often referring students to the university Writing Lab where they may obtain help on specific academic assignments. Proficiency in English is monitored at various points throughout the student's

academic career, most notably during the admissions and advising processes, while the student is completing general education requirements, and during the accomplishment of degree program courses and senior theses.

Grading Policy

Type of assignment	Number	Duration	Evaluation
Class quizzes	6	20 min	Percentage of correct answers, average of top 5 scores
Laboratory	12	2.5 hr each	A, B, C, D, F, average of top 10 scores
Infographic presentation	1	12 min	A, B, C, D, F
Midterm	1	2 hr	Percentage of correct answers
Final exam	1	2 hr	Percentage of correct answers
Attendance, participation, and short assignments			It is extraordinarily important to come to class and to participate actively, whether you are joining us in person or online.

Other

Exams: There will be one midterm and a final exam scheduled during the semester. Exams will be open book and will contain a mixture of matching, fill-in, true and false, multiple choice and short-answer essay questions. Be prepared to synthesize ideas rather than just regurgitate information. The final exam will focus mainly on material from the second half of the semester but will also incorporate the key concepts from the first half. During the current health crisis, either or both exams might be take-home or online – I will keep you informed!

Quizzes: Six times throughout the semester, on select Tuesdays, you will take a short quiz during class – some will be at the beginning of class, others at the end. Some or all of the quizzes will be held online (on Blackboard), so depending on the current health situation you may need to bring a laptop to class. I will let you know! These short multiple choice quizzes will be based on the readings and lectures and are designed to keep you up to date on the course material. They should be an easy way to earn points. By staying on top of things as we go along, you will have a much easier time preparing for exams! There will be no way to make up a missed quiz, so please come to class. For your final grade, I will take the average of your top 5 quiz scores.

Infographic presentation: During the final week of class, you will present an “infographic” that you craft over the course of the semester to outline a specific solution to an environmental problem. The idea is to explore topics that we might not have time to cover in lectures – environmental science is such a rich discipline! You’ll be using free software called “Piktochart” that is flexible and easy to use. During the first half of the semester we will work together as a class to identify individual topics, with the aim of creating an informational “booklet” with all of your infographics that we can then share online with the AUP community (and beyond, if we all agree). To create your infographic, you will be consulting at least three scholarly sources and putting together a bibliography that will be included in the final product. Note that your textbook can be one of your scholarly sources! More information about this assignment can be found in the “Infographic” tab in Blackboard.

Lab assignments: All of the lab sections will be taught alternately by three professors: Manuel Caballer, Jelena Pantel, and myself. I will be teaching the first three weeks, Prof. Caballer will teach the middle six weeks, and Prof. Pantel will teach the final three weeks. We have special permission from the state to teach the labs **ON CAMPUS** starting from the very beginning of the semester (the week of Jan 18), so please come to lab (C-401) unless you let us know ahead of time. If you are enrolled in a lab, your lab scores count towards your grade for the lecture course – you will not receive a separate grade for the lab course. Labs will involve small group activities designed to familiarize you with a specific scientific concept. For most labs, you will work together in teams but might be asked to write up a separate lab report. Unless otherwise announced, or unless you are joining us remotely from a different time zone, lab assignments will be due at the end of the lab period that day. Lab reports submitted late will be penalized by a proportion of a letter grade for every day late, i.e. A becomes A-, A- becomes B+, etc. For your final grade, we will take the average of your top 10 labs.

Attendance and participation: I know this is a strange time, which is all the more reason why we need to stick together and work to build community, whether it is online or in the classroom. Preparing for, showing up to, and participating during class are crucial to your success (note: special provisions will be made for students joining us remotely from a very different time zone). Certain small assignments will be included in your participation grade – these can be found in the “Lecture Assignments” tab in Blackboard.

Grading Scheme:

Letter grades:	Total Percent	Grade
	94-100%	A
90-94%	A-	
	87-90%	B+
	84-87%	B
	80-84%	B-
	77-80%	C+
	74-77%	C

70-74%	C-
67-70%	D+
64-67%	D
60-64%	D-
<60%	F