# EARTH AND ENVIRONMENTAL SCIENCE SUMMER SESSION I 2019 EESC 1050 SOCIETY AND THE OCEAN JOHN BEATTY

# SYLLABUS AND COURSE OUTLINE

## **VERY IMPORTANT INFORMATION**

- (1) Be absolutely certain that the e-mail you listed on your CUNY First page is correct. When I send e-mails to the class they go through the CUNY First system and if your e-mail is incorrect, you will not get them. I will send you an e-mail after the first class. You need to let me know if you do not get it.
- (2) You can e-mail me at one of two e-mail addresses:

## probeatty@gmail.com

## jbeatty@brooklyn.cuny.edu

If you e-mail me to ask me a question, the answer to which is in the syllabus or on the college web site in general, I will not respond. I know it is easier for you to write and e-mail than it is to look things up yourself, but you need to do it yourself.

- (3) DO NOT EAT FOOD DURING THE CLASS. There is no eating in the classroom. It is called a classroom not a lunch room. Neither I nor the other students need to smell the food you brought in or deal with the rattling of papers. If you come late to class you should not have a cup of coffee with you that you just bought. If you are late, forget the coffee and get to class and stop distracting me and the students who got there on time by making a grand entrance.
- **(4)** Although this next seems like it should be unnecessary, experience has proved contrary. DO NOT hold conversations with your friends and neighbors in the class room during the class. Other people are here (believe it or not) to learn something and a constant buzz of talking is disruptive to them and to me.
- **(5)** I take attendance so I know who is here and who is not in case the police come and want to know whether someone was in class on a certain day. I do not count attendance as a part of your grade, so if you don't want to come, don't. It is your responsibility. If youi haven't by now, learn about responsibility.
- **(6)** The class meets 2.5 hours a session which is the equivalent of a week per session. A "3 credit lecture course" consists of 14 weeks of lectures plus a final. The class will meet on the following days.

Week 1: June 4,5.6 (Lectures 1,2, 3) Week 2: June 11,12,13 (Lectures 4,5, 6) Week 3: June 18, 19, 20 (Lectures 7, 8, 9) Week 4: June 25, 26, 27 (Lectures 10, 11 12)

Week 5: July 2, 3 (Lectures 13, 14)

July 8 (FINAL EXAM)

This constitutes the 14 meetings and the final **DO NOT MAKE PLANS THAT WILL CAUSE YOU TO MISS THE FINAL** 

## RELATIVELY IMPORTANT INFORMATION

SINCE THERE IS NO TEXT BOOK FOR THE CLASS, IT IS VERY IMPORTANT YOU COME TO ALL THE CLASS MEETINGS SINCE THE LECTURES SHOULD GIVE YOU THE BACKGROUND TO READ THE ARTICLES.

If you miss a class

(a) Check the web site: You can go to: <a href="http://johnbeatty.name">http://johnbeatty.name</a> and follow the link to "Society and the Ocean" from there

Or more directly to:

http://www.sci.brooklyn.cuny.edu/~jbeatty/coresea/2019S/indexa.html The first is easier to remember!

(b) Make a friend of someone in the class so you can get copies of their notes. If all else fails (including you) - come talk to me. My office hours are before and after the class for about an hour. If I am not in the classroom, I will likely be in 3131 Ingersoll Hall. If for some reason, you cannot come in earlier than the class or stay later, let me know (by e-mail or making an arrangement after or before the class) and we can make an appointment to meet some other time.

I do suggest if you feel you want to have a book, you can get a copy of How the Ocean Works (see below) either by buying it on line (Amazon, Abebooks, Alibris) or find a copy in the library (either at BC or through interlibrary loan or at Brooklyn Public Library, NY Public Library, Queens Public Library and so on).

### **RECOMMENDED TEXT BOOK**

Denny, Mark; 2008; How the Ocean Works; Princeton University Press, NJ The text deals largely with oceanography.

#### **REQUIRED ARTICLES**

(They are all on this web site unless noted differently) Many are pdfs so allow some time for them to load. Most are only a few pages and rather light. Some are

heavier reading Although all the articles are linked on the web site, the actual URL is given after the article in case the link fails.

#### **FOR TOPIC 1:**

"The Challenger" found at

http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/challenger.pdf

"Explorers on the Challenger" found at

http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/Explorers.pdf

"Tides and Waves" found at

http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/tides and waves.pdf

"Waves and Tides" found at

http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/waves and tides.pdf

"Ocean Waves" found at

http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/WAVES.pdf

"Ocean Waves in Deep Water" found at

http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/Deep Water Ocean Waves.pdf

"Tsunami!" found at

http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/Tidal Wave.pdf

"El Nino" found at

http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/El Nino.pdf

### **FOR TOPIC 2:**

"Strange Relations" found at

http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/Binder1.pdf

"Algal Blooms" found at

http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/Algal\_Blooms.pdf

"Reviving Dead Zones" found at

http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/Reviving Dead Zone <a href="mailto:s.pdf">s.pdf</a>

"Scientists from the California Academy of Sciences Discover New Marine Species and Assess Coral Reefs in Easter Island (Rapa Nui)" found at

http://www.sci.brooklyn.cuny.edu/~jbeatty/coresea/SCIENTISTS FROM THE CALI FORNIA ACADEMY OF SCIENCES DISCOVER NEW MARINE SPECIES AND ASSE SS CORAL REEFS IN EASTER ISLAND.pdf

#### **FOR TOPIC 3:**

"The Diving Women of Korea and Japan" found at http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/AMA.pdf

"Food from the Sea" found at

http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/Food from the sea.p df

Japanese Pearl Culture-The Women Who Dive for Pearls" found at <a href="http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/Japanese Pearl Divers.pdf">http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/Japanese Pearl Divers.pdf</a>

"Greek Sponge Divers" found at <a href="http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/sponge\_divers.pdf">http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/sponge\_divers.pdf</a>

"Trade in the Ancient World" found at <a href="http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/TRADE\_IN\_ANCIENT\_WORLD.pdf">http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/TRADE\_IN\_ANCIENT\_WORLD.pdf</a>

## **FOR TOPIC 4:**

"Counting the Last Fish" found at <a href="http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/Last\_fish.pdf">http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/Last\_fish.pdf</a>

"Status of Wave and Tidal Power Technologies for the United States" found at <a href="http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/wave and tidal power.pdf">http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/wave and tidal power.pdf</a>

"Impacts of the Fukushima nuclear accident of fishing and fishing grounds" found at

http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/Impacts of the Fuku shima nucle.pdf

"Addressing Climate Change and Sea Level Rise in the Pacific Islands" found at <a href="http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/addressing\_climate\_c">http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/addressing\_climate\_c</a> <a href="http://userhome.brooklyn.cuny.edu/anthro/jbeatty/coresea/addressing\_climate\_c">http://userhome.brooklyn.cuny.edu/anthrooklyn.edu/anthrooklyn.cuny.edu/anthrooklyn.cuny.edu/anthrooklyn.edu/anthrooklyn.ed

I may notify you of additional papers to read. I do this (i.e. notify you) through the e-mail address you have on CUNY FIRST. Check and be sure that is the correct e-mail address for you. If not change it. There may be some discussion of mathematical equations and chemical equations, but you will not be expected to be able to do any of those on the exams.

There is also a short bibliography which might prove useful at <a href="http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/BIBLIO.pdf">http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/BIBLIO.pdf</a>

#### **VISIT TO THE AMERICAN MUSEUM OF NATURAL HISTORY**

There is a "field trip" you should make to the American Museum of Natural History to visit a number of the halls there. These halls are (a) Biodiversity, (b) Ocean Life, (c) and several of the ethnographic halls. These are detailed in the "guide" that will be on the website short small "guide" that I will give you that will tell you how to get there and what to look for. You do NOT have to turn in anything from the "guide book". There will be questions on the final based on the museum trip.

#### **GRADES**

Grades are based on 2 out of 3 quizzes and a final. Please note grades are not based on what you need, whether you have other obligations outside of school, whether you volunteer time some or anything else. **Grades are based on the mathematical computation of grades earned on exams. Period.** At the end of the term do NOT e-mail me saying you deserve such and such a grade because you studied hard or any other excuse. I am happy to go over any exam with you and explain the grade on the exam or correct any errors made in the grading. The grades will be posted on the class web site before they are entered in CUNY FIRST. If you feel there is a MATHEMATICAL error or that I might have entered a grade incorrectly or some such clerical mistake CONTACT ME AS SOON AS I POST THE GRADES so the error can be rectified It is much harder to change a grade after it has gone into CUNY FIRST so it is better all-around if we can locate the problem and resolve it before the grades go to the registrar.

The quizzes will be given at the ends of Topics 1, 2 and 3 (see "Topics" above and also below). The final exam covers the entire terms work.

There are no make-up exams for the quizzes. If you come late, you will have missed the quiz and that is the one that will be dropped from the computation of the grade. LEARN TO COME ON TIME. If you miss more than one quiz then a "0" gets added in.

The final exam counts 40% of the grade. There are three quizzes and I drop the lowest of the three and the remaining two count 30% each

To be totally clear

2 highest quiz grades (30% each)	60%
Final	40%
TOTAL	100%

If you arrive for a quiz or the final after anyone who has seen the exam has left the room for any reason, you will not be allowed to take the exam.

This means basically, once the exam has started, you may not be able to take the exam so come on time No one arriving late to the quizzes or the final will be able to take the exam. Anyone showing up late for an exam with a cup of coffee of oterh

edible will not be allowed to take the exam. If you had time to get coffee, you should have been on time. **LEARN TO BE ON TIME.** 

While it hardly seem reasonable that I should have to raise this issue, DO NOT COPY FROM YOUR NEIGHBOR. This constitutes both cheating and plagiarizing both are which against college policy.

The class is small enough and the room large enough that you should be able to leave spaces between you and your neighbors to avoid even the hint that you are copying from one another. You probably know more than your neighbor anyway.

## **IMPORTANT!**

Grades are based on a numerical average. They are not based on what you need, what you want, what you expect, family problems and so on. They are based purely on mathematical calculations from the scores on objectively scored exams. If you believe that I have entered a score incorrectly or that there is some clerical or mathematical error let me know **AT ONCE.** As soon as I have the grades for the term, they will be posted on the web site one or two days before I have to submit them to the registrar. The grades are posted to give everyone a chance to see if your grade seems correct. This means that if you notify me of a problem there is time to change it before the grades are actually scheduled. There is always a possibility that there is a problem and it is best to clarify it BEFORE the grades are sent to the registrar.

**ONCE AGAIN**. The final grades will be posted on THIS CLASS' website the day after the final (maybe even the evening of the final). They will not be entered in the college until two days later

IF YOU HAVE ANY PROBLEMS OR QUESTIONS ABOUT YOUR TERM GRADE, E -MAIL ME BEFORE the grades are submitted to the registrar so that the problem can be resolved before the grades are officially entered. **There will be no change of grades submitted after they are officially entered**.

THE FINAL EXAM IS SCHEDULED FOR JULY 9<sup>th</sup> from 11:30 – 1:30 in the same room where class is held (3127 Ingersoll Hall) Do not plan any trips that will cause you to miss the final.

## **EXTRA CREDIT PROJECTS**

You may do ONE AND ONLY ONE project from the list below. **This adds 5 points to your score on the final exam**, not to your final average for the course. Aside from the projects listed below there are no extra credit projects. Extra credit projects must be handed in by July 3<sup>rd.</sup>

No late papers accepted. They are not to be emailed. Sorry, but I keep getting excuses that the paper must have gotten lost in cyberspace.

There are several videos at the library which you can watch. Choose any one of them and write a short paper (1 to 2 pages) explaining the relevance of the video to the course:

- a. Jellyfish Invasion
- b. Deep Trouble (bonus material for Blue Planet)
- c. Kuruwitu: Between a Rock and A Hard Place
- d. Minamata

As far as I know these are not on you tube. Please do not write to me and ask me to look at videos on you tube with the same name and tell you whether or not they are the same as the ones in the library. I don't know what is on you tube nor am I going to go looking all through it. I won't answer any e-mails that ask about this. The videos are about an hour in length. Go watch them in the library.

The course is roughly organized around 4 sets of topics (1/ 4of the term for each). In each part the emphasis is on a different aspect of the topic - society and the sea, but it is the interactions of the different topics that will be the underlying theme

**Topic 1**: Early investigations into exploration of the oceans. How the ocean operates Principles behind the movements of the waters and lands in the oceans. Cook Darwin and the Challenger. Biases. Definitions, Impacts on societies. Geological changes and its impact. Appearance of land, impact of seismological activity; changes in ocean levels over time. Migrations into the New World, navigation, disasters, etc.)

**Topic 2**: Life in and on the ocean Different life forms in the oceans. Evolution and extinction. Kinds of life forms, classification systems. Trophic levels

**Topic 3**: People, society and culture and the way these interact with the ocean. Social structure (economics, politics etc.) Symbolics (religion and magic, art, folklore etc.)

**Topic 4**: People's impact on the ocean (over fishing, pollution, government regulations.) Development of "ocean sanctuaries".

These 4 topics are points of discussion and will not be kept separate in 4 sections, although each section will stress that topic.

#### Office Hours:

I am generally in the class room for about an hour before and a while after the class. If you need to meet with me (and you do if you are not doing well on the exams) and those times are not good for you, let me know and we can make an appointment for some other time. I am around a good deal, but you need to make sure I am not meeting with another student or doing other projects so you need to make an appointment – AND KEEP IT. You can e-mail me if necessary, at profbeatty@gmail.com .

This is the best way to reach me. While I do not write with a quill, it may shock you to know that I do not have a cell phone and get e-mails ONLY on the computer. So leave enough time for me to find your e-mail during the day and read it. Do NOT text me since the only phone I have has a rotary dial and barely functions for speech.

Be sure to let me know who you are because believe it or not, from an e-mail that reads "from "sexy dancer @ brooklyn.cuny.edu" I will have no idea who you are.

Generally, I get back to everyone in a day or two. If you do not hear from me, the chances are your email has disappeared into cyberspace. Whatever the case, send another e-mail or leave a note for me in my mailbox in the department of Earth and Environmental Sciences. If no one is in the office (3137 Ingersoll Hall) you can slip it through the door to the right of the office door but be sure to put my name on it so when it is found it will be put in my mailbox. You do not need to e-mail me to let me know you will not be in class. I will figure that out myself when you don't appear.

### **Cell Phones**

If you feel compelled to have one, shut it off before you come to class. If it goes off during the class you will receive an "F" for the course. And if I can arrange it (and I probably can) something worse will happen as well!