# DEPARTMENT OF EARTH AND ENVIRONMENTAL SCIENCE FALL 2018 EESC 1050 (MW11) SOCIETY AND THE OCEAN SYLLABUS JOHN BEATTY

#### SYLLABUS AND COURSE OUTLINE

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>

Or more directly to

http://www.sci.brooklyn.cuny.edu/~jbeatty/coresea/2018fallmw/index.html

(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 3137 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. There will be materials placed on a web site regularly dealing with the societal aspects. You should check the site regularly. The URL is:

http://www.sci.brooklyn.cuny.edu/~jbeatty/coresea/2018fallmw/index.html

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

"Indonesian Tsunami" found at

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

"Tsunami!" found at

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

#### **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 Dea d Zones.pdf

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

http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/SCIENTISTS% 20FROM%20THE%20CALIFORNIA%20ACADEMY%20OF%20SCIENCES%20D ISCOVER%20NEW%20MARINE%20SPECIES%20AND%20ASSESS%20CORA L%20REEFS%20IN%20EASTER%20ISLAND.pdf

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

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

"Food from the Sea" found at <a href="http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/Food from the">http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/Food from the</a> e sea.pdf

"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">http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/sponge\_divers</a>.pdf

"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>

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

"Status of Wave and Tidal Power Technologies for the United States" found at

http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/wave and tid al power.pdf.pdf

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

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

"Addressing Climate Change and Sea Level Rise in the Pacific Islands" found at

http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/addressing\_cli\_mate\_change.pdf

I may notify you of additional papers to read. There is a bibliography which can be found at

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

in case the link isn't working. I do this 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 http://userhome.brooklyn.cuny.edu/anthro/jbeatty/CORESEA/BIBLIO.pdf

#### 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 shortly.

Don't panic. The museum is a great place to go. It has a suggested donation, but they ask only for a contribution. You do not have to pay the "suggested" price. So since there is no text book for the course, you should be able to manage this. The museum is accessible from a number of subways. You will have a small "guide" that I will give you that will tell you how to get there and what to look for.

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

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

Tests are short answer (multiple "guess") and are scored on scantron sheets so be sure to bring at least ONE (better more) #2 pencil(s) the days when the quizzes and exams are being given.

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. If you miss more than one quiz then a "0" gets added in.

The final 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%   |
|-----------------------------------|-------|
| 2 Highest quiz grades (50 % each) | 00 /0 |
| 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. LEARN TO BE ON TIME.

The Final Exam is WED , DEC 19. 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 final exam score. Aside from the projects listed below there are no extra credit projects.

Extra credit projects must be handed in by DEC. 5th. No late papers accepted. You may e-mail them to me, but no later than the start of class on DEC. 5<sup>th</sup>. (profbeatty@gmail.com) If you do NOT receive an

acknowledgement from me with 24 hours that I have gotten it, assume it has gone astray in cyberspace and send it again immediately. You can turn in a hard copy the day of the class if you prefer.

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

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 then so that the problem can be resolved before the grades are officially entered. There will be no change of grades submitted after that. The course is roughly organized around 4sets 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**

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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

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This is the best way to reach me. While I do not write with a quill, 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 from an e-mail that reads "sexy dancer @ brooklyn.cuny.edu"

because, believe it or not, 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 e-mail has disappeared into cyberspace. In either 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!