1. Discussion Section Details
2. Course Resources
3. Lecture 1: Introduction to Oceanography/Marine Mammals

I. TA's
   a. Anne Simonis – asimonis@ucsd.edu
      i. Office Hours: Thursday 2:00 – 3:00 PM in Galbraith Hall room 364 or by appointment
   b. Doug Krause – djkrause@ucsd.edu
      i. Office Hours: Wednesday 1:00 – 2:00 PM in Galbraith Hall room 364, or by appointment

II. Sections
   a. Wednesday, 10:00 – 10:50 / WLH 2209
   b. Wednesday, 11:00 – 11:50 / WLH 2209
   c. Thursday, 1:00 – 1:50 / YORK 3030
   d. Exam Reviews (Subject to change)
      i. Mid-Term: April 30, 3-5 PM, location TBD
      ii. Final: June 3, 1-3 PM, location TBD

III. Term Paper
   a. 5-7 page research paper on a unique/individual topic
   b. Details, description and guidelines up on the website (http://cetus.ucsd.edu/sio133/)
   c. More details, support and suggestions to come
   d. Milestones (Due in Lecture):
      i. Selected Topic – April 27
      ii. Outline/References – May 11
      iii. Draft (Submission OPTIONAL) – May 18
      iv. Final Paper Due – June 1

IV. Late Policy
   a. Milestones
      i. Credit awarded only to on time submissions
      ii. Late submissions MAY receive feedback, but not guaranteed
   b. Final Paper
      i. Due by 6 PM to turnitin.com
      ii. Late submissions loose one letter grade (10%) per day

V. Recommended additional references:
   a. Marine mammal guide books
      ii. Encyclopedia of Marine Mammals (Eds. Perrin, Thewissen)
   b. Websites (beware of Wikipedia)
      i. www.arkive.org
      ii. www.iucnredlist.org
      iii. www.marinemammalscience.org/species-information/
STUDY/DIscussion Questions:

Lecture 1: Introduction to Oceanography/Marine Mammals

1) Oceanographic Terminology – Match each term with the corresponding blank below.

a. Neritic
b. Oceanic
c. Pelagic
d. Epipelagic
e. Mesopelagic
f. Bathypelagic
g. Benthic
h. Photic
i. Aphotic

2) Like all plants, phytoplankton need light, nutrients, and CO₂ to grow. CO₂ is not limiting anywhere in the ocean.
   a. How deep does light typically penetrate into the ocean?
   
   b. What oceanic depths are associated with high concentrations of nutrients?
3) Briefly describe each of the following oceanic processes:
   a. Upwelling:
   b. Wind-Mixing:
   c. How are these processes related to global patterns of primary productivity in the ocean?

4) Which numbers on the primary productivity chart below correspond with:
   Upwelling:
   Wind Mixing:
5) Draw the food web you would expect to find near #2 in the chart above. How would it differ near #5?

6) Whales aren’t solar powered, and they don’t eat phytoplankton. Why do marine mammal scientists care about global patterns of primary productivity?

7) List six common mammalian characteristics.

8) What are the 5 families of marine carnivorians? List one example of each (genus, species and common name).