Diet and Global Climate Change
2018 Winter Quarter
Environmental Studies 166DC, UC Santa Barbara

Lecture: TR 8:00-9:15am, PSYCH 1902
Discussion sections: R 7:00-7:50 pm GIRV 2123; F 12:00-12:50 PHELP 1445; F 1:00-1:50 GIRV 2123
Class websites: http://www.es.ucsb.edu/faculty/cleveland/Courses dcc dccintro.htm (Reading assignments, etc.);
https://gauchospace.ucsb.edu/courses/ (Section assignments, grades, etc.)

Professor: David A. Cleveland. Email: cleveland@es.ucsb.edu (put “Diet&Climate” in subject line of all emails). Office
hours: Env Studies #4019 (floor 4L, Bren bldg), Tuesdays 10:00-11:00, Thursdays 3:00-4:00, and by appointment.
Teaching Assistant: Alice Chang; Email: alicechang@umail.ucsb.edu (put “Diet&Climate” in subject line of all emails).
Office hours: Env Studies #TBA (floor 4L, Bren bldg), Mondays and Wednesdays 12:30-1:30, and by appointment.

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1. INTRODUCTION

The foods we eat can make us healthy, sustain our climate and environment, and nourish our communities—and be delicious!

Yet our diets are literally killing us, destroying our environment and driving global climate change, and doing this in ways that contributes to social injustice and unethical treatment of animals. What can we do about it?

In Diet & Global Climate Change we analyze the global food-climate-health-equity crisis and the potential of diet change as a solution.

This course will empower you to participate in the important discussions and decisions about our diet and climate happening every day. We will analyze theories, data and values from different viewpoints, and test hypotheses about the relationship of diets to climate change, health, and social justice.

Questions we’ll answer in Diet & Global Climate Change

- How can diet change reduce:
  - greenhouse gas emissions (GHGE) in the agrifood system, from inputs like fertilizers, to food waste?
  - the risk for diet-related diseases like diabetes, heart disease, and cancers, and the GHGE from health care?

- How do knowledge, values, food environments, food corporations, and government policies, affect our diets?

- What changes can we make on our UCSB campus and in our communities to support better food choices and diets?

- How can we help to motivate diet change for friends and family, communities, and policy makers?

2. INTELLECTUAL PROPERTY STATEMENT

Statement by the University of California: All course materials (class lectures and discussions, handouts, examinations, web materials) and the intellectual content of the course itself are protected by United States Federal Copyright Law, the California Civil Code. The UC Policy 102.23 expressly prohibits students (and all other persons) from recording lectures or discussions and from distributing or selling lectures notes and all other course materials without the prior written permission of the instructor (See http://policy.ucop.edu/doc/2710530/PACAOS-100). Students are permitted to make notes solely for their own private educational use. Exceptions to accommodate students with disabilities may be granted with appropriate documentation. To be clear, in this class students are forbidden from completing study guides and selling them to any person or organization. [This text has been approved by UC General Counsel.]
3. REQUIREMENTS

This syllabus is a contract between you (each individual student) and the instructors of this course. By registering for this course you agree to the requirements and terms stated here. These requirements may be modified or supplemented later in minor ways; you are responsible for adhering to those changes, which will be announced in class.

3.1. Academic integrity

No form of academic dishonesty is tolerated in this course. **This includes using another student’s iClicker in class, giving your iClicker to another student to use in this class, or any other form of cheating or plagiarism on homework assignments, quizzes or the final exam.** The penalty for any form of academic dishonesty may include being dropped with an “F” from the course. In addition, any student who has the bad judgment to do any of these things will be reported to the Office of Academic Integrity. The UCSB Office of Academic Integrity (http://judicialaffairs.sa.ucsb.edu/AcademicIntegrity.aspx) has resources defining academic integrity and the procedures for dealing with academic dishonesty.

3.2. Required attendance

Attendance is required in all lectures and discussion sections. See details below.

3.3. Computer and internet access and competency

The main website for this course is http://www.es.ucsb.edu/faculty/cleveland/Courses/dcc/dccintro.htm. It is restricted beyond the homepage and Syllabus to current students; We will give you the username and password during the first lecture. Access to and use of the internet for this class is required. This includes checking for updated weekly assignments, and checking your UCSB U-Mail account daily. There is also a Gaucho Space website for this course, where you will find section assignments and grades.

Some of the readings listed in the Syllabus will change, and updated weekly assignments will be posted on the class website. Updates to the syllabus will also be announced in class, and you are responsible for these.

Access to and use of computers and MS Office software are required for this course. Computers and a printer are available for student use in the Environmental Studies Conference Room, Bren 4016.

According to the Registrar, “U-Mail is the official student e-mail service used by instructors and University administration. All students are required to activate and maintain (e.g. make sure it is not over quota) their U-Mail accounts for the duration of their academic career at UCSB. If you choose to forward your U-Mail to another e-mail provider you are required to check and maintain that account.” If you have any trouble logging into the class websites or accessing linked resources from these websites, let us know immediately.

3.4. Critical analysis guidelines (CAG)

The Critical Analysis Guidelines (CAG) are posted on the class website, and will be used throughout the course as the framework for analyzing readings, lectures, and discussions in your sections. Therefore, you should be sure to resolve any questions you have about them during the first weeks of the quarter.

3.5. Lectures and readings

Lectures include participation by students, and are based on the assumption that you have done the required reading by the date listed on the syllabus. All readings will be available via the class website in electronic form. If you have not done the readings, it will be difficult for you to understand the lectures or do well the quizzes. The purpose of the lectures is to explore the important concepts of the course together interactively, not to deliver and receive information passively. To
facilitate this, students are required to attend lectures and participate in discussion, and factual information will be available in readings and posted lectures.

When lectures include PowerPoint presentations, the PDF of most lecture slides will be posted on the course website after each lecture. Not all material presented in class will be included in the posted lectures, and some lectures will not use slides for some of the presentation.

**Attendance in lectures is required** and will be recorded via your use of your iClicker to answer questions in class for weeks 2-9. Each lecture is worth 6 points, and you can miss up to a maximum of three lectures with iClicker sessions without it negatively impacting your grade for lecture attendance. However, you are responsible for all material presented in lectures even when you cannot attend.

All readings for this class will be available for reading and downloading on the class website. Most of the readings are chosen from the professional literature and require critical, concentrated attention, i.e. they are not popular summaries. We will sometimes ask you to read only selected parts of reading, so be sure to check the assignment.

Skim quickly through each reading to get the main points, and to understand how the reading relates to lectures and discussion sections. Then read it again more carefully and write a summary using the relevant parts of the Critical Analysis Guidelines (CAGs). Writing a structured answer will help you remember the material for the quiz, and will often bring out new questions as you think about the material. Bring those questions to lecture and section! Be sure you understand the big picture for each article.

In order not to disturb other students, you need to **arrive** before the beginning of lecture, and **stay** until the end of the lecture. **Do not pack up until the lecture is over.** I encourage you to participate in the lectures by asking questions and contributing your knowledge to discussions when they take place.

**Use of laptop computers and other electronic devices is not permitted in lectures,** because their use disrupts the class. Before the lecture begins **turn off and put away all devices**—computers, cell phones, iPads, iPods, MP3 players, etc. Students using these devices during lecture may receive a zero for one of the quiz grades. Success in this class will **not** be a result of your recording *every* word spoken during lecture, but rather, of jotting down main concepts on paper, engaging in lecture discussions, understanding the interaction between assigned readings and lecture topics, and reviewing the lecture PowerPoint slides. **This class belongs to all of us,** so let’s work together to make it a great learning experience.

### 3.6. Discussion sections

Discussion sections will be integrated with the lectures, and your **attendance, participation and assignments** in your discussion section will be evaluated by your TA, and are worth 25 points per week for weeks 2-9 for a total of 200 points (see **Discussion Syllabus** for break down of points). Since no laptops are allowed, required readings should be printed out and brought with you to the sections they are assigned for.

You will be evaluated on (1) your ability to discuss reading assignments and answer questions in class, (2) written homework, and (3) individual and group presentations, both scheduled and spontaneous. Completing the reading and attending the lectures is necessary for successful participation in discussion sections.

You must register for one of these sections to take this class, and **YOU ARE REQUIRED TO ATTEND THE SECTION YOU ARE REGISTERED FOR**—If you do not, you will not receive credit for that section. All sections will meet the first week of classes and students who are registered but do not attend **WILL BE DROPPED.**

### 3.7. Quizzes and final exam

The best way to prepare for the quizzes and final exam is by 1) taking notes during ALL lectures, discussion sections, and on ALL readings, 2) using these notes to answer the questions in the CAG, 3) asking questions and participating in the lectures and discussion sections, and 4) contacting the instructors outside of class if you have any remaining questions. Quiz and final exam questions will be a mixture of multiple choice, short answer, interpretation of graphs and tables, solving simple problems, and longer essays and long essays, and will be based on the readings and other assignments, lectures, and discussion sections. Multiple choice questions will ask you to identify the one answer that is **MOST FALSE.**
You are responsible for all material from the last quiz up to the point of the current quiz. There is also an extra credit option—see section 3.11.

The in-class quizzes and the final exam will not be given early. Make-ups will be given only in documented cases of emergency. Exceptions will not be made for participation in intercollegiate and club sports or other campus activities. Check your academic, athletic and social schedules for the quarter, and make sure there are no conflicts. This includes planning your class schedule so that your finals do not conflict and so that you do not have too many finals on one day—if you have a conflict, talk to your instructors NOW to see if arrangements can be made, or drop this course.

3.8. Final exam

It is your responsibility to plan your class schedule so that your finals do not conflict and so that you do not have too many finals on one day. If you have a conflict, discuss with class instructors now to see if arrangements can be made, or drop this course. Remember, the final exam for this course will only be given during the scheduled time.

From the Registrar about Final Exam schedule: “According to Academic Senate policy, instructors are not authorized to change these times without prior Academic Senate approval. Students can personally contact the chair of the department about any hardship they experience from a change in the final exam schedule. Contacting the Undergraduate Council is also an option. Any such appeals should be made prior to taking the exam.”

3.9. Written assignments

All written work, including the introductory essay, Campus Food Environment project, and homework assignments for your sections, must follow the format described here. They must be 8.5 x 11 inch format, double-spaced, with one inch margins on all four sides, using Times New Roman 12 point font. Put [last name, first name], [discussion section time, e.g. Fri 12:00"], and “Diet & Global Climate Change” in the upper right hand corner of the first page, and your last name and page number in the upper right hand corner of each subsequent page.

Some assignments will be submitted electronically via the class Gaucho Space website. Assignments to be handed in as paper copies must be machine printed, stapled in the upper left hand corner. Papers that are difficult to read because of poor printer quality will not be accepted. To conserve paper, you can print on both sides of the paper, or reuse paper that has one side previously used, as long as your assignment is clearly legible. Do NOT use a title page or covers.

ALL WRITTEN ASSIGNMENTS ARE DUE AT THE BEGINNING OF YOUR SECTION, OR THE LECTURE, ON THE DAY THEY ARE DUE. ASSIGNMENTS TURNED IN AFTER THE BEGINNING OF CLASS WILL BE CONSIDERED ONE DAY LATE. ASSIGNMENTS WILL BE MARKED DOWN ONE LETTER GRADE FOR EACH DAY THEY ARE LATE.

3.10. Introductory essay

This essay is worth 20 points, and is due at the beginning of your discussion section in Week #2. It should be 700 words maximum, double spaced, and answer the following questions in sections numbered 1 to 15 as below. Follow the format under “Written assignments” above.

1. What is your definition of “diet”?  
2. Where do you get most of your information related to food and diet?  
3. What did you eat last night? Was this the same or different than your typical evening meal before you left your family home? Why or why not?  
4. In what other ways has your diet changed, or not, since leaving home? Why?  
5. How has your diet changed after coming to UCSB, e.g. moving from eating in dining halls to cooking your own meals?  
6. What are your favorite foods?  
7. What are the main criteria you use in choosing what foods you eat? (e.g. cost, taste, familiarity/comfort, nutrition, availability, environ impact?)  
8. In what ways do you think your diet could affect the environment, society, and your health?
9. What is your definition of “anthropogenic global climate change (GCC)”?
10. Do you think that anthropogenic GCC has affected your life to date? Explain why you think this.
11. Why are you taking this course?
12. What do you expect to get out of this course, and how do you hope to apply it in the future?
13. What grade do you expect to receive and what work do you expect to do to receive it?
14. What is your major at UCSB? How is this course related to your major, and to other courses you have taken at UCSB and elsewhere?
15. Have you read and understood the Syllabus for this course?

3.11. Extra credit

- Identify a substantive Diet and Global Climate Change related event on our campus or in our local community that you would like to attend, and have your TA approve it, by the end of week #7 at the latest. This cannot be the same as an event you are using for your Campus Food Environment assignment.
- Attend the event and take notes.
- Write a substantive critical analysis of this event incorporating material you are studying in Diet and Global Climate Change.
- Word limit: 1000 words.
- Follow the CAG (Critical Analysis Guidelines), numbering sections of your critique 1-10 accordingly (not all components of the CAG will apply to some events).
- Grade (0-25 points) depends on quality of content and writing, which should reflect what you are studying in this class.
- Can be turned in until Week 8 in your section. Extra credit assignments turned in after this time will NOT be accepted.

4. GETTING HELP

If you are having difficulty understanding any of the material in this course, please come to our office hours or schedule an appointment immediately! Bring your notes on the lectures and readings, including your CAG outlines for topics you want to discuss.

In addition, a wide range of services are available at UCSB to support you in your efforts to meet course requirements.

- Disabled Students Program (DSP): (893-2668, www.sa.ucsb.edu/dsp) DSP provides academic support services to eligible students with temporary and permanent disabilities. Please let us know if you require special classroom accommodations due to a disability. You must register with DSP two weeks prior to receiving these accommodations, so if you are going to register do it at beginning of quarter.
- Campus Learning Assistance Service: 893-3269. CLAS helps students increase their mastery of course material through course-specific tutoring and academic skills development. Check out the tutorial groups and drop-in tutoring schedules posted on the web site: www.cclas.ucsb.edu. Sign up for services at the CLAS main office, SRB 3210, open 8-5 daily, closed noon – 1 pm for lunch.
- Counseling & Career Services: (893-4411, www.counseling.ucsb.edu) offers counseling for personal & career concerns, self-help information and connections to off-campus mental health resources.
- Stress management and other psychological resources on campus: http://counseling.sa.ucsb.edu/MentalHealthPeers/StudentEdResources.aspx

5. STUDENT EVALUATION

Evaluation will be based on your comprehension of all course material (assigned readings, videos, lectures, discussions, and written and other assignments), on clearly organized writing and verbal presentations, and on your ability to apply these skills to creatively and convincingly tests your hypotheses using theory and data.

As stated above, attendance in all lectures and discussion sections is required of all students. If you cannot attend you are still responsible for the material covered.
You will receive a “0” for any exam, paper or discussion section you miss. Assignments will be marked down one letter grade for each day they are late, beginning after the start of the section or lecture when they are due. The only exception will be for documented emergencies.

5.1. Schedule and point distribution

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>DATE GIVEN OR DUE</th>
<th>POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture: participation (iClicker), 6 points per lecture, 3 lowest scores of</td>
<td>Week 2-9</td>
<td>78</td>
</tr>
<tr>
<td>16 dropped</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discussion sections: class participation and assignments (8 weeks @ 25</td>
<td>Weeks 2-9</td>
<td>200</td>
</tr>
<tr>
<td>points per week)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introductory essay</td>
<td>Week 2, due in discussion section</td>
<td>20</td>
</tr>
<tr>
<td>Campus food environment assignment, Part A</td>
<td>Week 3, due in discussion section</td>
<td>40</td>
</tr>
<tr>
<td>Campus food environment assignment, Part B</td>
<td>Week 8, due in discussion section</td>
<td>60</td>
</tr>
<tr>
<td>Quizzes (4 quizzes, 100 points each, lowest grade dropped)</td>
<td>Weeks 3, 5, 7, 9, Tuesday in</td>
<td>300</td>
</tr>
<tr>
<td>Final exam (comprehensive)</td>
<td>lecture</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>Thursday, March 22, 8-11 am</td>
<td>302</td>
</tr>
<tr>
<td>Extra credit</td>
<td>Due in your section by Week 8</td>
<td>25</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1000</td>
<td></td>
</tr>
</tbody>
</table>

5.2. Grading system

Your grade will be a result of your work and improvement during the course. Grading is not on curve. All students can earn an “A”, a “B” or a “C”… or an “F”. Our goal is to help everyone work toward an “A”.

<table>
<thead>
<tr>
<th>POINTS EARNED</th>
<th>GRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>967-1000</td>
<td>A+</td>
</tr>
<tr>
<td>933-966</td>
<td>A</td>
</tr>
<tr>
<td>900-932</td>
<td>A-</td>
</tr>
<tr>
<td>867-899</td>
<td>B+</td>
</tr>
<tr>
<td>833-866</td>
<td>B</td>
</tr>
<tr>
<td>800-832</td>
<td>B-</td>
</tr>
<tr>
<td>767-799</td>
<td>C+</td>
</tr>
<tr>
<td>733-766</td>
<td>C</td>
</tr>
<tr>
<td>700-732</td>
<td>C-</td>
</tr>
<tr>
<td>667-699</td>
<td>D+</td>
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<tr>
<td>633-666</td>
<td>D</td>
</tr>
<tr>
<td>600-632</td>
<td>D-</td>
</tr>
<tr>
<td>0-599</td>
<td>F (Failure)</td>
</tr>
</tbody>
</table>
6. TENTATIVE COURSE SCHEDULE (check website every week for updates!)

Readings listed here are not final. Check the course website for final assignments for each week. Where no pages are listed, read the entire selection. We will be adding very brief popular articles to the assigned readings for each week. Complete reading prior to lecture, i.e., the readings posted beneath each lecture date should be completed prior to that lecture.


Week 1. Course overview; The food-climate-health-equity crisis.

Tuesday, January 16. Overview of this course.

READINGS
Course Syllabus.
Critical analysis guidelines (CAGs).
OPTIONAL: Evidence mounts that laptops are terrible for students at lectures.

Thursday, January 18. What is the potential of diet change to solve the food-climate-health-equity crisis?

READINGS

Thursday, Friday, January 18, 19. Discussion sections.

6.2. Part 2. Diet change, the agrifood system, and equity.

Week 2. Food production inputs; Food production.

Tuesday, January 23. Food production inputs.

READINGS
Rosen, J. 2016. Why your hamburger might be leading to nitrogen pollution. The Salt, NPR.

Thursday, January 25. Food production.

READINGS

Thursday, Friday, January 25, 26. Discussion sections.

**Introductory essay due**

USE CAG to analyze assigned article [and use on Quiz#1]

**Introductory essay due**

USE CAG to analyze assigned article [and use on Quiz#1]

Week 3. Transport; Food processing, packaging, storage.

Tuesday, January 30. Food transport.
QUIZ #1
READINGS

Thursday, February 1. Food processing, packaging and storage.
READINGS

Thursday, Friday, February 1, 2. Discussion sections.
**Assignment due: Campus food environment, Part A**

Week 4. Preparation and eating; Food waste.

Tuesday, February 6. Food preparation and eating.
READINGS

Thursday, February 8. Food waste.
READINGS
VIDEOS
Stuart, Tristram. The global food waste scandal. TED talk. (14 minutes).

Thursday, Friday, February 8, 9. Discussion sections.


Week 5. Evolution of diet; Diet and NCDs.

QUIZ #2
READINGS
Barnard, N.D., Willett, W.C., and Ding, E.L. 2017. The misuse of meta-analysis in nutrition research. JAMA.

Thursday, February 15. The noncommunicable disease pandemic.

**Thursday, Friday, February 15, 16. Discussion sections.**

Week 6. Diet change and food justice; Diet and GHGE in the health care system

**Tuesday, February 20. Diet change and food and health justice.**

**READINGS**


**Thursday, February 22. Diet change and GHGE in the health care system.**


**Thursday, Friday, February 22, 23. Discussion sections.**

6.4. Part 4. How can we take back control of our diets? Motivation, community action, policy

Week 7. Psychology of food choice; External determinants of food choice

**Tuesday, February 27. Why do we choose the food in our diets?**

**QUIZ #3**

**READINGS**


**Thursday, March 1. What are the external determinants of our food choices?**

**READINGS**


**Thursday, Friday, March 1, 2. Discussion sections.**

Week 8. Diet change from bottom up; Diet change from the top down

**Tuesday, March 6. What drives diet change from the bottom up?**
READINGS

Thursday, March 8. What drives diet change from the top down?
READINGS

Thursday, Friday, March 8, 9. Discussion sections.

**Assignment due: Campus food environment, Part B**

6.5. Part 5. Review and final exam

Week 9. Review

Tuesday, March 13. Review first half of course.

QUIZ #4

Thursday, March 15. Review second half of course.

Thursday, March 15, 16. Discussion sections.

Week 10. Final exam

Thursday, March 22. FINAL EXAM, 8-11 AM, Psych 1902.