

DATE	TOPIC TO BE PRESENTED	READING
Sept. 25	Course Introduction & Climate Today	KKC: Chpt 1
Sept. 27	Climate Today (continued)	KKC: Chpt 18
Sept. 30	Climate Today (continued)	
Oct. 2	Introduction to the Earth System: Interactions & Feedbacks	KKC: Chpt 2
Oct. 4	Introduction to the Earth System (continued)	KKC: Chpt 3
Oct. 7	THE EARTH SYSTEM: Earth's Greenhouse & Energy Budget	KKC: Chpt 4
Oct. 9	THE EARTH SYSTEM: The Workings of the Atmosphere	
Oct. 11	THE EARTH SYSTEM: (continued)	KKC: Chpt 5
Oct. 14	THE EARTH SYSTEM: Coupling the Ocean & Atmosphere to Drive Climate	
Oct. 16	THE EARTH SYSTEM: (continued)	
Oct. 18	The Carbon Cycle, Climate Change & Ocean Acidification	KKC: Chpt 8; Chpt. 15: p. 303-308
Oct. 21	The Carbon Cycle & Climate Change (continued)	
Oct. 23	MIDTERM #1 – IN CLASS	
Oct. 25	NO CLASS	
Oct. 28	<i>Catch up</i>	
Oct. 30	Climate Change of the Deep Past	KKC: Chpt 12 & 13
Nov. 1	Climate Change of the Deep Past (continued)	
Nov. 4	The Climate Clock of the Past Million Years	KKC: Chpt 6
Nov. 6	The Climate Clock of the Past Million Years (continued)	KKC: Chpt 14
Nov. 8	(continued)	
Nov. 11	VETERANS DAY – UNIVERSITY HOLIDAY	
Nov. 13	Abrupt Climate Change & the Rise of Human Civilization	KKC: Chpt 15: p. 295-302
Nov. 15	Abrupt Climate Change & the Rise of Human Civilization (continued)	
Nov. 18	(continued)	
Nov. 20	MIDTERM #2 – IN CLASS	
Nov. 22	IN CLASS EXERCISE: Building Your Carbon Footprint & Budget	No make-up outside of class (4% of grade)

Nov. 25	GLOBAL CLIMATE CHANGE: What's in Store for California	KKC: Chpt 15: p. 306-317
Nov. 27	GLOBAL CLIMATE CHANGE: What's in Store for California (continued)	
Dec. 2	<i>Guest Lecture</i>	
Dec. 4	GLOBAL CLIMATE CHANGE: Adaptation & Mitigation Strategies	KKC: Chpt 16
Dec. 6	GLOBAL CLIMATE CHANGE: Sustainability in an Evolving Climate	
Dec. 9	FINAL EXAM (MONDAY 10:30 AM TO 12:30 PM)	

COURSE OBJECTIVE: To overview modern climate change issues and introduces fundamental concepts underlying climate change. The impact of climate change on humans is evaluated in the context of past climate change brought on by natural processes and how it affected life throughout Earth's history including during the evolution of humans and the rise of civilizations. In order to more fully appreciate how climate will evolve over the next few decades and centuries, the course reviews the processes that link Earth's land, water resources, atmosphere and life.

No course pre-requisites

PROFESSOR: Isabel P. Montañez - email address: ipmontanez@ucdavis.edu

Room 3117 Earth and Physical Sciences (EPS) Bldg (at intersection of California & La Rue, next to Arboretum).

OFFICE HOURS: Mon. (2 to 3 pm) and Thursday (4 to 5 pm)

COURSE TEXT:

1. Kump, L.R., Kasting, J.F., and Crane, R.G., 2010, *The Earth System: 3rd Edition*

- **One copy** of the book is on 'Reserve' in Shield Library

- UCD Bookstore: New (~\$179.40), Used (\$138.75),

New Rental (\$98.95); Used Rental (\$58.30)

- Amazon: New (\$160.09 or \$39.95 (Mass Market Paperback)), Used (\$77.79), Rental (~\$18.45)

On the Class Canvas Site - you'll find pdf versions of lecture notes, exam study guides, and links to interesting and relevant webpages. Look for these in the late afternoon of the day before the class in which each topic is introduced. Study guides will be available ~ 1 week before the exam. I'll give you a 'heads-up' in class about when new material is added to the Canvas 'files' site.

NOTE: The lectures will be video recorded live and will be available on the GEL 10 Canvas course site within an hour or two of the end of each class. The videos will appear in "Lecture Videos" and/or "Media Gallery" in the course navigation section of the Canvas course site

I highly recommend that you do not consider these lecture recordings as a substitute for attending lecture. Experience by faculty is that when students use the lecture recordings as a substitute for attending class that there is a notable drop in grade performance. The recordings are intended as supplemental resources for exam review; review of difficult material; coverage for the occasional missed class due to illness or other unavoidable absence; and when learning disabilities or English as a second language present obstacles to learning

GRADING:

- **2 Midterms** (48%) and a **Final** (48%). All equal weight; take 3 exams and drop the lowest grade OR take *only* 2 of the 3 exams and skip one exam (including the final).
- NO EARLY EXAMS OR MAKEUP EXAMS without a formal written medical or University event excuse. The final exam date and time (Monday Dec. 9 10:30 AM to 12:30 PM) is set by the university (i.e., cannot be changed).
- ***In Class Exercise***: Building your personalized C budget (4%) (no make-up outside of class)
- Exams: ~ 40 multiple-choice questions that include all material covered in course: course notes, book chapter, and class lectures/discussions.
- No extra credit assignments.