

Principles of Sustainability

FAQs – Frequently Asked Questions (v.08.27.21)

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1. **Do I need a quality computer and internet connection to take this course?** Yes. *The course is designed to be accessible at a wide range of possible configurations of hardware and bandwidth, however the better the internet connection and the computer, the better the experience. University computer labs, public libraries and other resources are available for students with limited access to digital tools and connections. Doculectures viewed at standard definition (SD) are sufficient for course access on lower quality hardware and connections.*
2. **Why are the course doculectures optimized for headphones?** *Headphones help isolate your focus from your surroundings. They also help create virtual dimensionality through surround-sound effects engineered into the presentations. Both of these attributes can help your brain process information and increase your memory and recall. Earbuds are OK, but the comfort and noise isolation of headphones are best.*
3. **What is the schedule of the course?** *There is broad flexibility for students to access and complete materials. Many upper division and graduate students have complex and demanding schedules including jobs, field research, travel requirements, or family responsibilities. The semester syllabus is a general guideline of performance and it will demand good time management skills and self-discipline to stay on track. There are specific dates for exams and papers. I respect the challenges and unexpected crises you have in life and I will try to accommodate all individual requests for deadline modifications. My recommendation: front-load your efforts and stay ahead of schedule; the workload of the course is significant and getting behind will no doubt cause you grief and stress and may negatively impact maximizing your learning and ROI on this course.*
4. **Is this a difficult course?** *I prefer to call it demanding and challenging. The course requires the hard work of learning. This is an upper division/graduate level course and by working hard you will master a broad range of concepts and areas of knowledge. I have clocked all of the course assignments and it is in the range of expectations for a 3-credit course at this level. If you master the topics presented and demonstrate mastery of course material on assessments (homework, papers, discussion) you will receive a good grade in the course. I have absolutely no problem giving a grade of A to the entire class if mastery of the subject area is demonstrated, and your work is high quality. Students that drop the course midterm are counted as the lower part of the grade curve; survivors reap the rewards of resilience.*
5. **There are a large number of Parts in this course and a large amount of material covered. Should it be two courses?** No. *Sustainability is first a study of systems. We have to understand those systems interrelationships and connections in order to create practical options for the*

present and future. The important dynamics that challenge our future are topics of exploration in the course. Most students' major curricula are jam packed with courses in a disciplinary field, and the background courses required to build an academic foundation. The pedagogy in this course allows for a compressed delivery that is information intensive in the critical areas of study. In this presentation style, there are no wasted words such as: "on the next slide", "um..." and "in this pie chart", and the delivery pace is rapid because that is preferred by students over slow paced delivery (...ZZzzz).

6. **I am a [fill in the blank] major. Will this course be approachable for me?** *I have designed this course to treat the systems of sustainability, which has elements of all of the areas of human social, economic and ecological interactions. The content is normalized for students of any disciplinary background. Some elements of the course treat areas of your personal background and interests, and others will present new areas of exploration in which you will have less background. The assigned papers in the course allow students to develop course concepts and demonstrate mastery of those concepts applied to their areas of primary interest and preparation. I want this course to magnify your passions and preparation, not dilute them.*
7. **I hate online classes. Why can't this be a traditional classroom class?** *I have taught everything from 500-student large hall courses in freshman chemistry to small seminar-based graduate courses. While traditional approaches may be good to support discipline (hard schedules of attendance and performance), they may not be the best approach to deep learning in our new media and advanced technology era. Unfortunately online courses are too often not well designed and executed, and quality of the learning experience often suffers. There are trade-offs for all approaches to teaching and learning. Accessibility, flexibility, information density, place-bound students, continuing education, diversity, adaptability, digital community, future singularities, and mobilizing the incredible, but often untapped, power of new media are some of my personal reasons for adapting and developing online approaches to accommodate student needs and our challenging future. My development goal in this course was to make an online course better than a traditional classroom course by leveraging new media. The cognitive neuroscience of learning and memory strongly suggests that vibrant audio-visual imagery and stimuli helps in recall, synthesis of understanding of complex concepts, and in overall retention of learned material.*
8. **Why don't the "Study Guide" links work?** *Study guides are usually prominent in lower division courses to help students master study skills and course content. I built in the links to each course Part; however I remain undecided to use them.*
9. **What are the "Case Study" links on the Part pages?** *It is helpful to illustrate course concepts with coherent case studies with concept application and demonstration. I highly recommend that you explore this material, as it will help you see applications of what you are learning in the more formal doculectures. Advocacy is avoided without balance; however, some case studies by their nature will present a particular point-of-view. Many case studies are short film pieces (<15*

minutes) or written expositions. Although I am still collecting case study resources for all the Parts, they are worth your time when you find them posted.

10. **I like to have the PowerPoint notes for a lecture. Can you do this for this course?** No. This is a PowerPoint-free course. There is a large amount of reading already in the course. I encourage students to watch doculectures with a notebook page outlined in 5-minute time blocks and to write quick bullets during the presentation. The time-coded blocks will help you quickly go back and locate the material for reanalysis. Taking notes is “active learning” and helps in memory and recall of material. In developing the doculectures, I use on-screen text for most definitions, important concepts, or complex concepts so visual learners have another mode of access (hearing and seeing). I suggest exploring a doculecture in whole and then returning to time-coded sections. All doculectures have 5-second white screen subtitle breaks about every 5-minutes of so. I hired a dictation expert to produce accurate full text scripts of all presentations, and these are available for download on the BlackBoard course site.
11. **How is the course organized?** The course is broken into eight Chapters and each Chapter has several Parts. A Part will contain 1) a doculecture (or sometimes just a focused online reading); 2) a textbook reading and/or scholarly paper reading; 3) a short homework (usually 4 questions that can be answered in 15 minutes total or less if you have explored the doculecture and readings); and 4) a graded discussion prompt. There is an approximate schedule of performance. Midterm and final exams, and course papers have specific due dates.
12. **What is the expectation for discussion participation?** Excellence. One of the primary reasons for new employees not surviving their first year at a job is poor communication skills – oral and written. Tight coherent writing, ability to express opinion, critical analysis, and good nature are a part of this skill set. No one has a monopoly on wisdom, and we can learn from each other in quality discourse. Agreeing and disagreeing is a great quality of a vibrant discussion. This is safe arena – it is not public outside of course participants. Express yourself but be respectful. This is “harmonic action without a conductor” much like geese flying south in formation where leadership is rotational and more difficult for those in the front than in the rear; I read all posts but do not participate unless to correct or add to the factual basis, or to respond to a specific instructor question. Short informative posts work best. A response to the Part discussion prompt is worth 5-points.
13. **How many papers are required in the course?** Two for undergraduate sections and three for graduate sections. The midterm exam is one of these for both groups; this assessment is a “slam-poetry” styled challenge in that you will receive the challenge and have to complete it in a week’s time. This sort of challenge and response mirrors “real-life” challenges when we have to produce excellent work in very short time frames and in a variety of formats targeted for a range of audiences. I consider this to be one of the most challenging but rewarding assessments you will undertake in your college career – one student has called this assignment “the monster.” The case study paper is a tour de force demonstration of mastery of course concepts.

The grad student topic paper is a demonstration of absolute academic excellence in writing a publication quality paper. Grading rubrics for all writing exercises are posted in the RESOURCES area on the course web site. I expect excellence in preparation and presentation of all papers. Formats and paper target details are in the course web site and syllabus, and in follow-up course communications.

14. **What is the password for the Silent Spring presentation?** *The doculecture for Silent Spring was previously passworded for restricted access. That is no longer the case.*
15. **Do we need the textbook?** *Yes. The text readings support the course in several areas. Available in paperback and e-book editions, the textbook is "relatively" inexpensive.*
16. **Do you have office hours?** *No. They really are not practical for online courses where students can be distributed all over the globe in many time zones. I answer emails and calls to my personal cell phone as rapidly as I can. I can Zoom on appointment and nearby students are welcome to come by my office anytime with an appointment.*
17. **I am a [fill in the blank] learning style student. Will this course work for me?** *The course is designed with the types of different learning styles in mind AND the limitations of all styles of presentation. No matter the type of learning style that you best identify with, subject area mastery requires hard work. We all have to adapt our approaches to learning somewhat to achieve coherence, memory, recall, and deep learning in a knowledge area.*
18. **There is a problem with sound quality. Can this be fixed?** *I try to balance sound quality as best as I can on a low/no budget, and with time constraints. Everyone's hearing range and hardware response is slightly different. Sometimes there is a fail in sound levels from one segment to another, and your patience in adjusting your volume control is required. Background music is at about -30db (tech stuff) so just lowering overall volume will make this reduce out first. Please report particular problems to me. Please note that sometimes the background sounds and music are raised in volume on purpose to exercise and challenge your brain. For example, having to focus on a conversation in a noisy environment challenges your brain to filter out background noise and focus. Practicing your shot on the basketball court is quite different when there are five other players on the other team trying to block it. This is a technique that adds occasional diversity to keep your brain fit and responsive (awake?) during the learning process.*
19. **The [fill in the blank] in one of the lectures passed by too quickly. Can this be slowed down?** *No. The default is rapid presentation. You have pause and rewind control. Please communicate concerns for the next version of the course. Please note you can download transcripts from the BlackBoard course web site.*
20. **The amount of information presented in the [fill in the blank] lecture is enough to make my head explode. Can this be broken up?** *Students can pace loading and delivery with*

doculecture playback controls. There are breaks in the presentations about every five minutes or so. Longer presentations will be more demanding of your attention. Be well rested, mentally focused, and in a place that allows you to concentrate on the material.

21. **There is an error in the [fill in the blank] presentation. How do I report this?** *The human error rate is 3% and quality control helps lower but not eliminate this error. Please report any errors you may find. Please note that many topics in the course are highly dynamic; for example, energy statistics change monthly.*
22. **I have a question concerning how BlackBoard graded my homework submission. What can I do?** *Tell me about it. I try to write straightforward questions that emphasize important course concepts. There are no trick questions, but as with all assessments, careful reading of the challenge is required. Normally I have no problem adjusting your grade if you present a valid question, alternate answer, or concern.*
23. **When are the BlackBoard Assessment homeworks due?** *It is best to do them according to the course performance schedule; however, I do not total grades until just before final exam week.*
24. **I cannot meet the [fill in the blank] deadline. What are my options?** *Tell me about it and request an accommodation. I try to accommodate all student requests. There are practical performance deadlines as the course ends. Final grades of "Incomplete (I)" are only given for situations that match university policy.*
25. **This is a "conjoint" class with an undergraduate and graduate section. How do you grade the different groups?** *All student grades are pooled together for assessments during the run of the course. At the end of the course, undergraduate and graduate students are separated into two different pools for assignment of final grades. Sometimes undergraduate students do some of the finest work in the class. A grade of B or lower in any class for any graduate student in any course is considered by many to be a poor performance.*
26. **How is a doculecture made?** *I put a technical course and doculecture development and production workflow together and posted this information in MERLOT (Multimedia Educational Resource for Learning and Online Teaching) searchable under the course name. MERLOT is a resource for academic practitioners.*
27. **I cannot access a course reading or the university library for course paper research. What can I do?** *To use the university library you will need the access ID and numbers on the back of your student ID card. Call the library reference desk for direct assistance (UI/208.885.6584). Off campus access requires a few more steps to log on. If you are a part time student you may need to call the circulation desk (UI/208.885.6559) and have them set up your student library access account. On campus IPs (connections) should be able to log on directly. Most course readings are web linked, but some just direct you to the [university library web site](#). Some papers will be posted in an electronic reserve at the UI Library linked through the RESOURCES section of the*

course web site. To find a course readings paper it works well to go to **Web of Science** to do your article search using the whole title and author. This is a very powerful search tool that also yields a cross index of citations to a particular work. If you have reference manager software like EndNote embedded in your word processor (MS Word) the program can automatically download references and the software formats them for you. If you have never used Web of Science the tutorials below show you how to use this powerful tool:

- a. <https://www.youtube.com/watch?v=iXGbH2hRsUw>
- b. <http://www.youtube.com/watch?v=5SPoXnxiNIM>

I cannot say enough about how Web of Science will help you in your course paper research.

28. **The syllabus speaks to the issue of plagiarism and electronic screening of student papers. Will I get caught for sloppy editing if I leave some paste & cut notes in my paper? The software I use to screen your papers will probably detect your sloppy editing. I look at the error in the context of the whole paper. The human error rate is 3% and sloppy happens; I get very concerned when I see a pattern of plagiarized material. I take this very seriously as you should. I have given course grades of F to graduate students in severe cases; this is not a pleasant experience for anyone. I suggest that you spend some time reading about avoiding plagiarism. ESL students sometimes are concerned about proper English grammar and will copy sentences of other's work. I will tell you that I would rather see poor grammar than plagiarism. Professional writing for ESL students is often very challenging and I am aware of that. If you are an international student, regardless of your past home country experience and practice, please be advised that copying material is **not acceptable** and carries a severe sanction/penalty.**
29. **I am not the best writer. What are your standards for student papers? Excellence. If you are not that experienced in writing, I recommend that you start organizing your papers early in the semester. Rush jobs make a challenging situation worse. I am happy to look over concepts and outlines, and work with you on an individual basis. Like any skill, good writing takes hard work and practice. Please contact the [U of I Writing Center](#) for personalized support.**
30. **The doculectures of Principles of Sustainability are described as open courseware. What is open courseware? Open courseware is the provision of 'classroom' content, such as lectures and lecture notes freely available over the web. In this regard it is a form of scholarship that enables informal learners as well formally enrolled course learners. An open course is similar to a published book that is open to all users at a public library. What universities do in formal education is assess and accredit or certify learners for subject area mastery and that accreditation forms the foundation of trust in society that a student has mastered a skill or area of knowledge. For example, reading a book on brain surgery does not qualify you to be a brain surgeon, but it can enhance the knowledge base of an informal learner who has a personal goal of better understanding of neurology and surgery. Universities and their community of scholars have a responsibility for outreach and extending knowledge into the public domain. As you**

recognize, the web is a powerful tool that can be a vehicle for accessing information and acquiring knowledge.

- 31. Have you engineered sustainability into the design of this course? Absolutely! Without performing a full life-cycle assessment or sustainability impact assessment on the course, there is definitely a paper reduction since this course can be fully e-accessed and completed using only digital resources. Availability of the course text as an e-book was a major consideration in selection, and allowing digital access and submission of assessments is a key design criteria. Students can access the course from wherever they may be, so commuting and travel to class is not necessary. I call this a geographically leveraged approach to sustainability. The digital infrastructure to access the course is changing and key concerns for sustainability in power consumption, resource reuse, recycling and pollution prevention are becoming mainstream considerations in manufacturing and deployment of our electronics and information infrastructure. Some of these initiatives include the popular Energy Star energy efficiency program in the US, and the Restriction of Hazardous Substances Directive (RoHS) in the EU, as well as the increasingly intensive approaches to managing e-waste. With the advent of the smart grid and better approaches to renewable energy, the overall increase in sustainability of the course will mirror that of many activities in our daily lives. I opened my first web site in 1992 when there were only 48 web sites live on the internet – believe in the future.**
- 32. An objective of the course is “to inform and inspire students.” Can you tell me what that means? Certainly. Although we need to develop a critical level of understanding in the broad array of connections in the systems of sustainability, we will need more than that to really advance humanity toward a better, more sustainable future. We need a new practicality that engages our present and the long-view. For example, undertaking a study of energy, we see that our current infrastructure is highly dependent on fossil fuels – and will remain so in the near-term future. A harsh reality of nature is that, born today, the baby of “drill baby drill” will outlive the petroleum era. Think for a moment and realize that we would not be cooking petroleum out of tar sands – an expensive approach compared to the relatively free approach of pumping it out of a hole in the ground – unless we had to. Forget corporate patriotism, these resources will go to the highest bidder in a globalized economy, and scarcity portends increasing costs and increased potential for conflict. In the past few years, renewable energy has become “levelized cost of Energy” (LCOE) leader in the energy marketplace: “...the levelised costs of electricity generation of low- carbon generation technologies are falling and are increasingly below the costs of conventional fossil fuel generation.” An alternative future requires inspired vision, creativity, and hard work. The challenges are great and the diversity of social, political, and economic realities across an increasingly interdependent world will require more than the status quo and the roadmaps we have followed in the past. Students of today are the generation that catalyzes a positive future and you will need to be informed and inspired as you do the hard work of leadership thrust upon you.**

33. I want to download a doculecture file so I can access without an internet connection. How do I do that? It is best to go to my Vimeo video hosting site at <https://vimeo.com/gregmoller>

1. *The direct download from the Vimeo source is normally a 1080p video file. This can be very large (Ancients and Nature, relatively short is 1.2 GB, and some approach 5 GB) and 1080p often is a difficult file for many average processor/memory computers to play even from a hard drive file (chatter). I personally do not like to heave around GB+ size files on my laptop, and I have a very good one.*
2. *Download/or streaming via a data plan on a smartphone may be costly. If you wish to access doculectures over a smartphone, it may be best to download the file while connected to a wireless network.*
3. *The full set of course doculecture videos can be downloaded directly to a moderate size flash drive if you have access to a good computer and fast broadband connection like those typically in public libraries.*