Spaceship Earth—Intro to Systems

Grand Challenges Course - Online

Dr. Norbert Mundorf

Successful completion of this course will satisfy General Education credit in B4 *Information Literacy Competency* and C1 *Civic Knowledge and Responsibility*. It is approved as a *Grand Challenge* course.

Course is entirely online:	Discussions, Postings, Assignments, Quizzes, Readings in Content	**BRIGHTSPACE:** https://Brightspace.uri.edu
Office Hours:	Online by appointment in Zoom	
Contact:	Messages: COM/SUS108G BRIGHTSPACE Site If Brightspace is down: nmundorf@uri.edu	
Readings:	Go to Brightspace - Content	**BRIGHTSPACE:** https://Brightspace.uri.edu

COURSE DESCRIPTION

We travel together, passengers on a little space ship, dependent on its vulnerable reserves of air and soil; all committed for our safety to its security and peace; preserved from annihilation only by the care, the work, and, I will say, the love we give our fragile craft (Adlai Stevenson, Speech to the UN, 1965).

Spaceship Earth is an image for our need to create a sustainable future. How can we improve the quality of human life in the face of Climate Change and conflicts over food, water, transportation, and energy resources? Our past and current choices impact the living conditions, even survival, of future generations. Income inequality is threatening sustainable development here in the U.S. and worldwide. How we act as human beings and as a society can change these conditions.   Communication is key to individual behavior, social, economic and political choices and can help to make our lives sustainable. Through in-depth study of films, readings and online sources, we will explore the economic, social and ecological principles of sustainability. We will discuss the importance linking scientific evidence, public policies and individual behavior, and work on strategies for lasting change.

While technology will provide some improvements, changing human behavior is the key to reducing carbon emissions, pollution, and to reducing the dependence of our society on fossil fuels. Human behavior change research has mostly focused on health (e.g. smoking, diet, exercise) but it can also affect environmental sustainability. In other words, we can change the way we act and the choices we make. This can help create a world, which is 'sustainable' for future generations, and at the same time improve our own health and quality of life. Environmental sustainability and sustainable health behaviors are increasingly interconnected. Both are subject to long-term individual behavior change processes. Translating scientific insights into human behavior has been a challenge for many years.

Communication, film and other media can become positive change agents. We will investigate individual and mediated environmental messages; analyze and experiment with ways communication affects environmental knowledge, attitudes, and behavior; design communication campaigns to effect resource use and ecological responsibility. The course will analyze cinematic depictions from stewardship to destruction of ecosystems and ways in which film can catalyze change. Students will study the dramatic and/or narrative voice of film/documentary in conveying compelling stories about economic systems and ecosystems with a focus on sustainability. Major social and ecological issues raised by the films will be discussed in tandem with the cinematic style employed to embrace and explore those principles. The course requires intensive online participation, the completion of writings and/or projects as assigned and a final project to be determined by the students in concert with the professor.

Course Goals

Define key issues in the relationships among, poverty inequality, and environmental justice

Identify research questions regarding climate change, environment, and sustainability

Locate and examine reliable sources of information about climate change, and related social and environmental threats

Determine ideological and pragmatic drivers of information quality, its selection and (possibly) distortion

Investigate individual and mediated environmental messages

Explore the ways to impact environmental knowledge, attitudes, and behavior

Design communication campaigns to affect resource use, ecological and economic responsibility

Become actively involved in campus and community environmental/sustainability activities

Student Learning Outcomes

If you successfully participate in this class you will be able to…

Describe political, social and economic decisions through the lens of sustainability

Articulate why and how your personal choices are important in achieving sustainable change

Appreciate the relationships between poverty, inequality, and environmental justice

Recognize the connection of local and global sustainability

Analyze, identify and forecast potential unintended consequences of anthropogenic actions

Describe and design film and media messages for diverse target audiences and channels

Utilize film and electronic media as agents for social change

Identify scientific and non-scientific sources and assess the quality of evidence

Properly cite scientific and non-scientific sources, both conventional and electronic formats

General Education Competency and Social Responsibilities Areas & Grand Challenges

As a General Education course, this class will stress the outcomes *Information Literacy Competency,* as well as *Civic Knowledge and Responsibility.* This is also a *Grand Challenge* course, which addresses complex issues in an interdisciplinary context, and applies ethical principles to address these issues.

This course fulfills the Competency area *Information Literacy* as well as the area *Civic Knowledge and Responsibilities. Information Literacy* is the ability to know when there is a need for information, to be able to identify, locate, evaluate, and effectively and responsibly use and share that information for the problem at hand.

Civic knowledge and responsibility encompasses actions wherein individuals participate in activities of personal and public concern that are both individually life enriching and socially beneficial to the community. Through exposure to civic engagement in a variety of learning environments, students will learn to clearly perceive and engage with the world in which they live. For details about these Outcomes, see:

 https://web.uri.edu/general-education/students/

1. This course will emphasize reflection and persuasion through writing, speaking, and media based on multiple information sources.   Locate, analyze, and present information and ideas.   This includes written analyses of movie and media content, reflect on a range of sustainability issues.   Also, you will use writing in BRIGHTSPACE regularly, competently, and extensively for class discussions (including written real-time chat). You will learn essential writing, public speaking and presentation skills.

2. Global sustainability, climate change, resource conservation and social justice are closely connected and interrelated. Some call them *wicked problems*—seemingly insurmountable problems without simple solutions--or *Grand Challenges.* These complex problems cannot be addressed by one discipline alone but require the cooperation of different disciplines, such as environmental sciences, psychology, communication, ethics, and the arts. Addressing these problems involves ethical judgment of actors, actions, and circumstances.

3. To address these challenges we will apply theories of human behavior and behavior change along with environmental science and economics and culture. While we learn about environmental, social, economic, and cultural sustainability we will consider ways that we as individuals and groups can make a difference.

4. We will identify local manifestations of environmental and other challenges to sustainability.   As we discuss ways to address them, and you will design a behavior change campaign and take steps to implement this campaign. As our class is primarily focused on change at the individual, family, and community level we will mainly deal with campus, neighborhood and community groups. *Think Global, Act Local!* (not quite grammatically correct, but catchy J)

5. An important dimension of this course is learning to "know your audience." We will utilize *research* to learn about different target audiences and their attitudes towards environmental, social, and economic dimensions of sustainability. In particular, we will analyze studies from multiple disciplines conducted to describe attitudes towards sustainability and environmental issues. For the final project, you will survey or interview a small group of people who are affected by the problem you are addressing in your project.

EVALUATION   **GRADE POLICY**

APA Climate Change Exercise	=10%	A = Superior work	95 – 99 =A	90 – 94 =A-	
3 Online Quizzes	=15%	B = Above average work	87 – 89 =B+	84 – 86 =B	80 – 83 =B-
Midterm Essay Exam	=15%	C = Average work	77 – 79 =C+	74 – 76 =C	70– 73 =C-
Documentary Film Analysis	=15%	D = Below average work	67 – 69 =D+	60 – 66 =D	
3 Online Postings	=15%	F = Unacceptable work			
Final Project	=30%				

ASSIGNMENTS (Information Literacy Competency=ILC; Civic Knowledge and Responsibility=CKR; Grand Challenges GC)

APA STYLE FORMAT EXERCISE: Climate Change (10% of final grade **ILC, GC**)

*Step-1***:** Go to https://owl.english.purdue.edu/owl/resource/560/01/
         Click on APA Overview and Workshop
Step-2: Read about APA In-text Citations and Reference Lists (skip Footnotes and Endnotes)
Step-3: Find 4+ sources of your choice about Climate Change, its causes, and possible solutions.
         Provide *your own* example for each of the following types of in-text citations
         (do not copy the example you see in the Owl at Purdue):
         1) Short quotation

         2) Paraphrase

         3) Citing electronic sources

 Step-4: Write 3-4 paragraphs about Climate Change. This text should include:
         1) Short quotation

         2) Paraphrase (short paragraph 80-100 words)

         3) Citing electronic sources (cite an online source in the text)

Step-5) Include a Reference List including the **4 source** types below:

         1. Basic book format

         2. Newspaper or Magazine article

         3. Article from an online periodical

         4. 1 or 2 Websites

Step-6: Paste completed APA Exercise into Brightspace-Discussions.
Do not use an encyclopedia or a dictionary (hard copy or online) or *Wikipedia*, as an academic citation or reference source in this course!

DOCUMENTARY FILM ANALYSIS (15 % of final grade: chat presentation and paper, **CKR & ILC; GC**).
Analyze a feature film or full-length documentary related to one or more of the following:

    Sustainability (social, political, economic, environmental)

    Climate Change, Resource Depletion (food, energy, water, forests)

    Threats to environment and/or health (nuclear accident, water pollution, obesity, threats to food supply)

Base your in-depth analysis on readings and class discussion; include a brief description of the sustainability issue addressed by the film. Discuss the impact of the film on you personally and on its target audience:

    Who is the author and what is the purpose?
    What techniques are used to attract and hold your attention?
    What lifestyles, values and points of view are represented?
    How might different people interpret the message?
    Will the message change how we do things?
    What is included in or omitted from the message?

Be sure to clearly structure your essay, using headings and sub-headings. Length: 1500 -1700 words.

MIDTERM (15% of final grade **CKR**), post in BRIGHTSPACE Discussions.

Design a **Personal Sustainability Plan** for: The next Month - The next Year - The next 5 Years

On the backdrop of readings, video and class discussions, outline effective ways to 'make a difference.' Consider environmental sustainability for yourself, your friends, family, workplace, apartment/house, and transportation. Consider things you can do immediately, in the short run, and in the long term. Also, think about what you can do to make these changes last, and to promote them among others.   Length: 1000 -1200 words.

ONLINE QUIZZES (15% of final grade **ILC**); (in BRIGHTSPACE Tests & Quizzes; available 7 am to midnight). Three online multiple-choice and short answer quizzes will test your knowledge of readings and online postings. You will read and critically evaluate a selection of articles and view informative videos related to Sustainability and Climate Change, and will identify key concepts and relationships covered in these sources.

ONLINE POSTINGS (15% of final grade **CKR).** Postings in BRIGHTSPACE Discussions throughout the semester (see schedule).

FINAL PROJECT (30% of final grade **CKR & ILC; GC**). Topics, updates, and final paper are posted in BRIGHTSPACE Discussions. *Communicating Sustainable Change.* This project incorporates the work you have done throughout the term. You will design and present a campaign designed to *Communicate Sustainable Change* related to your chosen topic area. You will design a project encouraging sustainable, and environmentally responsible behavior, along with meaningful and effective communication messages.

You must conduct research to define and narrow the topic, but also include personal experiences, a strong local angle, and a connection to sustainability. Your project may address topics such as:

  Transportation: local walking, biking, bus, or train travel (environment, health, economic angle)

  Sustainable Food: local farmers markets, reducing food waste in homes, restaurants, and stores

  Water/recreation: ocean, beaches, lakes/ponds, drinking water

  Recycling/Waste Reduction/Reduce and Reuse

  Renewable energy (wind, solar) and energy conservation

  Food security and food waste

  Health, poverty and sustainability

  Community initiatives across generations and cultures

  Mixed-use urban designs (of residential, shopping and work areas)

Define your topic.   Once you decide on your general topic (e.g. Sustainable Transportation), find 2-3 general articles or book chapters related to the topic. Narrow down your topic to a sub-area (e.g. Environmental Benefits of Biking). Post your topic in Discussions, so that we can avoid duplication. This is a Communication Course. Understanding the audience is key!

The *goal* of the assignment is to create a campaign, which encourages environmentally responsible behavior among your target audience by providing information and persuasive material. Details and rubrics will be posted in Content. For this project you will post initial project plans, updates, and the Final Report in BRIGHTSPACE and you will receive instructor feedback and comments by your classmates throughout.

1. Background: Gather readings, videos and information collected throughout J-term; add additional research from scientists, environmental groups, and decision makers.

2. Design the campaign materials: create a media campaign to advertise and promote the project.

3. Post your campaign as ONE report in BRIGHTSPACE. Make sure your messages are adapted to your target audience(s).

4. Submit: a comprehensive list of references, materials, and interviews (who, what, when, where, how, why), as well as a URL if appropriate. Submit your Report, and all materials to BRIGHTSPACE Discussions.

GENERAL COURSE POLICIES

PARTICIPATION. You must participate in scheduled online activities in order to participate in meaningful exercises and class discussions. Late submissions will impact your final grade in this course (see Grading and Deadlines).

PREPARATION. Follow the readings and assignments. Quizzes, postings and discussions are an essential feature of this course. You will be graded on the quality of your online contributions, which should illustrate that you have completed the readings and can apply what you read about to examples from situations not found in the textbook or readings. You are responsible for everything that is posted on our Brightspace course site.

ONLINE (BRIGHTSPACE). Our course will be conducted entirely in BRIGHTSPACE. It is your responsibility to know all of the information posted in the BRIGHTSPACE site, and to complete all assignments. Read the entire Syllabus, and check our Calendar and Announcements often. Also, I post your grades in the Grades. You have up to *three days* from the time that I post a grade to discuss it (the grade *and* the assignment) with me. Also, you are responsible for logging into BRIGHTSPACE regularly.

Readings and other materials are posted in Content. You will post all your work here in Discussions and communicate with me using Messages.

You are responsible for reliable access to Brightspace. System-wide technical issues will result in an alternative assignment. It is your responsibility to check in Brightspace—Announcements for these assignments. Absences: If you are absent, look at our Brightspace Calendar, Announcements, and ask a classmate. Email: You can communicate with me in Brightspace—Email.

ASSIGNMENTS and DEADLINES. Failure to follow submission instructions will result in a substantial initial grade deduction, and additional deductions until the assignment is submitted correctly.   You are expected to submit your work by the date and time scheduled.

WRITTEN ASSIGNMENTS: All work submitted for a grade must be in Times New Roman, black, 12-point font.   It is essential that your work be well written, grammatically correct and free of typographical errors and misspellings (be sure to proofread your work).   Also, refer to the General Online Discussion Rubric and the Course Rubric [in Content] for additional guidance related to written assignments.

ACADEMIC HONESTY: In an online environment it is imperative that you assign proper credit to work that is not your own. Plagiarism is a serious offense (see the detailed policy for URI Academic Honesty below) . In addition, when working in groups you have a moral and social responsibility to contribute consistently and to the best of your abilities. Be sure to communicate with your group members to be sure that credit is properly assigned.

Academic dishonesty, including cheating and plagiarism, will not be tolerated. Every student will be held accountable for knowing and adhering to university policies regarding academic dishonesty. All incidents of academic dishonesty will be reported directly to the Department Chair, and are subject to the URI Student Handbook.

URI Academic Honesty and Integrity (edited): In cases of cheating or plagiarism, the student(s) involved and the Department Chair will be notified. A *Report on Cheating and Plagiarism* will be filled out and copies will be sent to your dean, and the Dean of Students, Office of Student Life. Refer to the legislation on cheating and plagiarism in the University Manual see 8.27.10 – 8.27.21 - https://web.uri.edu/manual/chapter-8/chapter-8-2/

Students are expected to be honest in all academic work. You name on any written work, quiz or exam shall be regarded as assurance that the work is the result of your own independent thought and study. Work should be stated in your own words, properly attributed to its source. Students have an obligation to know how to quote, paraphrase, summarize, cite and reference the work of others with integrity. The following are examples of academic dishonesty:

Using material, directly or paraphrasing, from published sources (print or electronic) without appropriate citation
Claiming disproportionate credit for work not done independently
Unauthorized possession of or access to exams
Unauthorized communication during exams
Unauthorized use of another's work or preparing work for another student
Taking an exam for another student
Altering or attempting to alter grades
The use of notes or electronic devices to gain an unauthorized advantage during exams
Fabricating or falsifying facts, data or references
Facilitating or aiding another's academic dishonesty
Submitting the same paper for more than one course without prior approval from the instructors.

STUDENTS WITH DISABILITIES: Any student with a documented disability should contact me at the beginning of the term to discuss specific needs. In addition, please contact the Disability Services for Students Office at 330 Memorial Union 401-874-2098 to coordinate reasonable accommodations.

STUDENT RESOURCES:
Writing Center
Roosevelt Hall, 4th Floor
www.uri.edu/writingcenter
401-874-2367
The URI Writing Center is open and free to all members of the University of Rhode Island community and is available to all writers, at all levels, in all disciplines. Any student may bring any piece of writing at any stage to the Writing Center for feedback.

The Academic Enhancement Center
Roosevelt Hall, 4th Floor
www.uri.edu/aec
401-874-2367

AEC tutors can answer questions, clarify concepts, check your understanding of course material, and help you to study. The Academic Enhancement Center helps students get more out of their studies. They offer tutoring in a wide range of subjects, help with time management and study skills, supplemental instruction in challenging courses, and a comfortable place to relax and study alone or with friends.

STUDENT SUPPORT:

Enrollment Services: https://web.uri.edu/enrollment/

Financial Aid: https://web.uri.edu/enrollment/financial-aid/

Counseling Center: https://web.uri.edu/counseling/

Disability Services for Students: https://web.uri.edu/disability/

  Academic accommodations for students include Electronic Books and Noting Taking, etc.

  See: https://web.uri.edu/disability/home/accommodations/academic-accomodations/

  And: https://web.uri.edu/disability/electronic-books/