SUST 101.02 – Introduction to Sustainability Studies

You may wish to print pages 1 and 2 to have for quick reference in your files. All essential course policies are on pages 3 and 4.

This is a face-to-face class with hybrid as needed; it is not an online course.
Time: Mondays Wednesdays, Fridays, 11:00-11:50 Location: MNS 210

Instructor: Dr. Loren B. Byrne Phone: X 3890 Email: lbyrne@rwu.edu Office: 227 MNS
Office Hours: By appt. ONLY, outside or online: good times are MWF @ 10:30 & 12pm; Tue @3:30

Quotes that summarize Dr. Byrne's teaching & learning philosophy:

"The mind is not a vessel to be filled but a fire to be kindled." ~ Plutarch
"Teachers open the door. You must enter by yourself." ~ Chinese proverb
"(Intelligence) is 1% inspiration and 99% perspiration." ~ Thomas Alva Edison
"Today a reader, tomorrow a leader." ~ W. Fusselman
"When we try to pick out anything by itself, we find it is tied to everything else in the universe." ~ John Muir
"High-quality learning is absolutely essential for high-quality living." ~ L. Dee Fink

Course Description:

Sustainability Studies is a transdisciplinary field that examines interrelated environmental, economic, social and technological problems that affect human well-being and solutions to them, across local, regional and global scales. This course provides an introductory survey of the concepts, principles and tools from diverse fields that contribute to understanding and responding to sustainability issues such as energy and water use, climate change, environmental degradation and socioeconomic concerns such as happiness, justice, security and equity. The course introduces perspectives from the natural and social sciences, arts, humanities and professional disciplines and explores how understanding their interconnections increase the prospects for creating a more sustainable future for all humans and other species. The various topics explored will help students develop personal philosophies and worldviews that can inform decision-making for more sustainable lifestyles.

Be Prepared: *This course is reading, writing and participation intensive* (see quotes 3 and 4 above). This is not because the professor wants to give you "busy" work. Rather, these activities will promote your deeper learning.

Course goals for learning outcomes:

Students should gain foundational knowledge and understanding that should enable them to:

- describe the natural and social scientific concepts and principles of sustainability studies
- identify relationships among human cultures and natural resource use and management
- discuss different and divergent cultural, philosophical and disciplinary perspectives of sustainability
- analyze the impacts of lifestyle choices on the environment and resource use
- apply systems thinking, socio-environmental knowledge and problem-solving skills to work toward the goal of achieving more sustainable lifestyles and social-ecological systems
- discuss key challenges to achieving sustainability at local, regional and global scales

In addition, students should gain:

- understanding & appreciation for the value of quantitative, systems and transdisciplinary thinking
- awareness of diverse worldviews among people and diverse paradigms among global cultures
- improved skills for written and oral communication and self-reflective thinking

Required text: Wessels, T. 2013. The Myth of Progress: Toward a Sustainable Future, Revised & Expanded Edition. Univ. of VT Press; Lebanon, NH.

Course Components & Grading:

Your grade in this course will be calculated based on the weight for the assignments as follows:

20%: Attendance, participation, in-class & homework assignments (half-sheets, group work, short papers, etc.)
20%: In-class quizzes
10%: Paper 1: Course summary or Wessels' book review
15%: Solution case study (presentation and paper)
10%: Creative project & essay
20%: Final reflection essay
5%: Final oral exam (discussion about final essays during final exam period)

Grading scale and the meaning of grades: Accumulated points reflect relative success of achieving learning outcomes

A= ≥ 93% Excellent A- = 90-92.9% Great B+ = 87-89.9% Very Good B= 83-86.9% Good B- = 80-82.9% Good
C+= 77-79.9% Average C= 73-76.9% Average C- = 70-72.9% Average D= 60-69.9% Poor F= ≤59.9% Failure

SUST 101 - Introduction to Sustainability Studies: Semester Schedule

Week	Topic	Readings *(to be completed before that day's class)*
1	8/26: Introductions and expectations **Part 1: Introducing SUST – A Summary** 8/28: How do beliefs, norms, & worldviews relate to SUST?	 8/28: 2 "This I Believe" essays
2	8/31: What is our dominant socioeconomic paradigm? 9/2: What is unsustainable? 9/4: How is sustainability defined? What does it really mean?	8/31: Wessels: Prologue & Introduction 9/4: MEA synthesis report
3	9/7: **Quiz**/ What are the roles of self and society for SUST? 9/9: Why is systems thinking so important? 9/11: A systems & problem-solution case study: Amazon fires	 9/9: F. Capra: "Web of Life 9/11: Amazon fire readings
4	**Part 2: The Science of SUST for Decision Making** 9/14: Why bother with scientific thinking? 9/16: What are the values of data & quantitative analyses? 9/18: What's the difference between complexity & linearity?	 9/14: N. Angier: from "The Canon" 9/18: Wessels: Ch 1
5	9/21: What is life? What is needed to stay alive? 9/23: **Quiz**/ Why care about abiota & populations? 9/25: What are ecological limits?	9/21: F. Capra: "Hidden Connections" 9/25: Wessels: Ch 2
6	9/28: How are ecological webs & dynamics relevant? 9/30: Can humans manage the environment? 10/2: Why consider energy, electricity & thermodynamics?	9/28: Capra: "Ecological literacy" 9/30: TBD 10/2: Wessels: Ch 3, pp. 52-64
7	10/5: How do we measure energy use & footprints? 10/7: **Quiz**/ Is climate change happening & caused by humans? **Part 3: Sociocultural Contexts & Challenges** 10/9: The social complexity of climate change	10/5: Online footprint analysis 10/9: Wessels: Ch 3, pp. 64-79
8	10/12: Societal Collapse throughout History 10/14: Markets, Materials & Economies 10/16: Industrialization, Globalization & "Stuff"	10/12: E. Moran: "The Great Forgetting" 10/14: Wessels: Ch 4 & "GDP R.I.P." 10:16: Story of Stuff video
9	10/19: Democracy, Corp. Power & Corruption 10/21: **Quiz**/ Marketing, Consumerism & The Media 10/23: Nature, Culture and Socio-Environmental Challenges	10/19: Speth: "The Market" 10/23: TBD
10	10/26: The Creative Spirit: Human/Nature Relations in the Arts **Part 4: Working Toward Solutions** 10/28: Prioritizing Problems, Defining Progress 10/30: Cultural Change: Personal vs. Public Choices	 10/28: D. Orr: "What is Education For?" 10/30: Wessels: Ch 5 & Epilogue
11	11/2: Conserving Biodiversity 11/4: Fighting for Environmental Justice 11/6: Student chosen topic	11/2: McCauley, Selling out on Nature 11/4: TBD 11/6: TBD
12	11/9: Lawn & garden case study 11/11: Lawn & garden case study 11/13: Lawn & garden case study	11/9: Case study materials 11/11: Case study materials 11/13: Case study materials
13	11/16: Lawn & garden case study 11/18: Solution case study presentations 11/20: Solution case study presentations	11/16: Case study materials
14	11/23: The Great Energy Debate: Possibilities & Limits 11/27 & 29: *No class- Thanksgiving break*	11/25: Energy debate preparation
15	Online meetings: Dates & times TBD: Nov 30-Dec 4 The Creative Spirit Revisited: Personal Expressions Conclusion & Synthesis: Toward Sustainable Lifestyles & Societies	 Final reading TBD

FINAL EXAM PERIOD: Thursday Dec 10, 10:15-12:15 Required final oral exam discussion

*****The professor reserves the right to modify this schedule as needed during the semester*****

Important dates: **September 23 -** Last day to drop course without receiving W grade
Oct 27 - Last day to drop course and receive W grade