SUST 434 - Synthesis of Sustainability Perspectives and Innovations - Fall 2017
(This document available at: http://sust.unm.edu)

Instructor:
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Office Hours: Tuesday 9:30 - 10:00 and Friday 11:00 – 11:30,
or by appointment at our convenience

Class sessions: Tuesday, Thursday 12:30-1:45 p.m. Mitchell Hall, Room 115

Selections drawn from:

Friedman, Thomas L. 2016. Thank You for Being Late: An Optimist’s Guide to Thriving in the Age of Accelerations.


Course description:
Presents frameworks for complex and creative analysis, including systems thinking and synergistic integration of the three pillars of sustainability: environment, equity, economy. Examines innovative local and international case studies in environment, business, policy, and community development. Prerequisites: SUST 134.

Goals, purposes, and expectations:
This course is suited for students interested in the theoretical and practical aspects of community development, local economies, resource conservation, community activism, and environmental protection. We frame our studies within the context of the “Age of Acceleration” that involves the ongoing development of technologies, coupled to globalization and climate change.

This course provides the opportunity to integrate experiences and knowledge gathered in Introduction to Sustainability and Environment (SUST 134), Sustainability Practicum (SUST 334), and the electives students have taken toward the minor degree in Sustainability Studies. Students will engage with challenges of sustainability as they prepare for the capstone project (SUST 499). Most students gravitate naturally to one or two of the three pillars of sustainability (environmental protection, social justice, and economic vitality). This course examines all pillars and the interactions among them. We will study frameworks for making meaning from complex situations and integrated design, including systems thinking and interdisciplinary philosophical underpinnings of sustainability. This will enable us to acquire a broader view with which to design synergistic applications of sustainability's three pillars.

We engage in a caring, creative learning experience with responsible students and thereby gain perspectives that empower us all as agents of sustainability. From Steve Covey's Seven Habits of Highly Effective People we favor an outcome that is "win/win". Some languages have no words for "teaching" but over 30 words for "learning". Indeed, we can only learn; learning is the basis of personal development and enrichment.

Plagiarism:
The Faculty Handbook, policy D100, affords instructors the authority to respond to plagiarism by granting a grade of “...'F' in the course and the involuntary withdrawal of the student from the class...” Avoid committing plagiarism by making all your work your own. Do not cut and paste from web sites, Dropbox, or articles. Brief, direct quotes are allowed but must be documented as such. Always put quoted text within quotation marks or in a smaller italics font, with complete attribution to the source.

Sexual misconduct, harassment, and assault:
The following statement is courtesy UNM Office Equal Opportunity. “Our classroom and our university should always be spaces of mutual respect, kindness, and support, without fear of discrimination, harassment, or violence. Should you ever need assistance or have concerns about incidents that violate this principle, please access the resources available to you on campus, especially the LoboRESPECT Advocacy Center and the support services listed on its website (http://loborespect.unm.edu/). Please note that, because UNM faculty, TAs, and GAs are considered "responsible employees" by the
Department of Education, any disclosure of gender discrimination (including sexual harassment, sexual misconduct, and sexual violence) made to a faculty member, TA, or GA must be reported by that faculty member, TA, or GA to the university's Title IX coordinator. For more information on the campus policy regarding sexual misconduct, please see: [https://policy.unm.edu/university-policies/2000/2740.html](https://policy.unm.edu/university-policies/2000/2740.html) LoboRESPECT Advocacy Center, Women’s Resource Center and the LGBTQ Resource Center have specially trained advocates and they do NOT share information with anyone else without a student’s signed permission.”

**Class session courtesy:** Please refrain from using electronic devices in class except to support our learning process. Please do not saunter out of the room without permission, as your absence will stall learning activities of the entire class.

**Late assignments:** Due dates are firm. Late assignments will lose 10% for each day they are late.

<table>
<thead>
<tr>
<th>Assignments and Grading</th>
<th>%</th>
<th>Due</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Looking within:</td>
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<tr>
<td>Tech Audit or Tech Fast</td>
<td>10</td>
<td>Sept. 7</td>
<td>How important is technology in my life?</td>
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<tr>
<td>My Worldview</td>
<td>10</td>
<td>Sept. 21</td>
<td>What do I believe? What do others believe?</td>
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<tr>
<td>Panel participation</td>
<td>5</td>
<td>Various</td>
<td>Join a panel to share insights about one of your assignments.</td>
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**Building your sustainability portfolio:**

| Prospecting stage       | 10| Sept. 28  | Brainstorming, literature review, precedents, networking.           |
| Purpose & SMART goals   | 10| Oct. 10   | What is my burning desire as an agent of change? Thinking long-term. |
| Asset audit             | 10| Oct. 19   | Resources, people, organizations, places, skills. Toolkit for how and why. |
| Stakeholders            | 10| Oct. 31   | Whom do I serve? What do they want or need? Engagement tips.        |
| Discovery               | 10| Nov. 16   | Questions; strategy for investigation. Human-centered design.       |
| Innovation              | 10| Dec. 5    | Disrupting the status quo; solutions; going to the next level. Effectiveness |

| Mini-activity           | 15| Various   | Create and lead a community of practice learning session.           |

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Overview and Strategic Design:

Premise: Recent semesters of SUST 434 revealed trends in climate, technology, and markets that conspire to create a world of rapid change, so rapid that humans struggle to keep up. Friedman’s (2016) conclusion is that professionals must be life-long learners. The purpose of a college education is to master the skill of “learning how to learn” so that learning can continue. Wenger (2000) sees learning as a collective enterprise that occurs within communities of practice. This is appropriate for sustainability because of the social equity pillar and because of policies that currently fail to meet the sustainability challenge. The strategic design of this course is to implement Wenger’s theory using the pedagogy of Typhina (2017) which brings four dimensions to bear: theory, creativity, community, and mini-activities. Practical, creative solutions will be guided by principles of McKenzie-Mohr (2011).

We will exercise Wenger’s concepts to realize tangible benefits for our chosen clients. One possible client is the UNM campus in context of the 10th anniversary of the Sustainability Studies Program. A second possible client is a start-up non-profit project, Flowers & Honey, to employ formerly homeless persons. The project connects with Habitat for Humanity, Wells Fargo Bank, La Plazita, Healthy Futures, and other groups.

Co-creating our shared experience: We will use the course itself as an environment for learning to act as an effective community of practice. We will master Wenger’s principles by using them to frame and guide the design of our class activities. Assignments lead to deliverables of direct value to each student. Students are at liberty to explore their own expertise and interests within the context of our learning community. By being transparent and accountable to each other, our individual and collective effectiveness will last as a future reminder of how best to adapt and engage with challenges in an uncertain world of rapid change.
Part I. Theory and Principles that Equip Us to Create Community Benefits
Please read assignments before class to prepare for mini-activities.

Aug 22. Introduction & Inventory of Skills and Interests


Overview: Results of skills inventory

Mini-activity: What will our class practices look like according to Wenger’s Tables 1, 2, and 3?


Aug. 29. How our course will run


Helpful resource: Here are some critical thinking prompts to use as you delve into the reading.

Co-create: Develop a collective agreement about what makes for an effective mini-activity.
Mini-activity: Interview with Terry Horger about the 10th anniversary of Sustainability Studies
Aug. 31. *Motivation for ‘learning to learn’ for a sustainable world*

**Read:** Chapter 2 from

**Read:** Chapter 6 from

Supplement: Critical view about technology, Chapter 12 from:

Supplement: Holling (2001). A classic theory of systems and how they collapse and re-organize

**Assignment:** Choose Tech Audit or Tech Fast. The “audit” version is to monitor your use of technology. The optional “fast” version is to avoid technology for 24 hours. In either case, write an essay about the experience, consequences, and insights you gain.

**Resource:** Proper tables and figures

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**Part II. Innovation and Creativity to Amplify Sustainable Practice**

Sept. 5. *Tactics for fostering sustainable behavior*


Overview: Campus bee survey results. Surveying solo people vs. those in groups
Mini-activity: Campus walking tour and pilot survey of student perceptions about sustainability on campus.
Overview: Logic model and/or **business model canvas** (BMC) – Value proposition and client-centered approach

**Resources for BMC**
Sept. 7. Amplifying people

Due: Tech assignment + Panel

Read: Chapter 6 from

Read: Step 1: Selecting Behaviors, from

Mini-activity: Student-led. Top ten good sustainability behaviors to amplify.

Sept. 12. It’s all about attitude

Read: Chapter 5 from

Mini-activity: Attitude adjustment based on Stoknes’s ideas

Overview: Abundance mentality
Supplement: Scarcity mentality
Sept. 14  Four steps for identifying barriers and benefits

Read: Step 2: Identifying Barriers and Benefits, from:
Key actions: Review literature, observe people, conduct focus groups, conduct a survey.

Kick-off exercise: Mining the literature
Resource: Reading and writing like a scholar
Mini-activity: Focus group simulation (topic determined by class)
Mini-activity: Revise our survey following survey tips from McKenzie-Mohr

Here, we reflect on our pilot survey in light of what we read for today.

Assignment: Portfolio prospecting stage, Due Sept. 28 -- Brainstorming, literature review, precedents, networking.
Mini-activity: Brainstorming my burning intellectual desire or activist goals.

Sept. 19  Developing strategies

Read: Step 3: Developing Strategies, from:
Key aspects: Behavior to encourage, behavior to discourage

Mini-activity: Revise our survey further based on developing strategies from McKenzie-Mohr

Here, we reflect on our survey instrument in light of what we read for today.

Sept. 20  OPTIONAL: Flowers & Honey meeting. 2:00 p.m., Hope Café, NM Nat. Hist. Museum
Sept 21  

*It takes commitment*  

**Due: My Worldview + Panel**

**Read:** Commitment: Good Intentions into Action, from:  
Key aspects: Effect change by making it easy for folks to commit.

Mini-activity, Student-led: Conduct street-survey 2.0

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Sept. 26  

*Building community support*

**Read:** Social Norms: Building Community Support, from:  
Key aspects: People look to others as a guide to their own behavior

Mini-activity: Evaluation of survey results

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Sept. 28  

*Social diffusion*  

**Due: Portfolio Prospecting Stage + Panel**

**Read:** Social Diffusion, Speeding Adoption, from:  
Key aspects: Importance of conversations with people we trust

Supplemental classic paper: Bettencourt et al. (2007), or watch Geoff West TED talk

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Oct. 3  

*Prompts to action*  

**Assignment: Portfolio Goals**

**Read:** Prompts: Remembering to Act, from:  
Key aspects: People need reminding

Mini-activity: Walking survey of missing prompts: water, energy use, transportation, recycling
Oct. 5  

*Communication*  

**Assignment:** Portfolio Assets  

Key aspects: Compelling information; know your audience; credible sources; framing; be specific, be memorable  

Supplemental: *Barnosky et al. (2012)* Approaching a regime shift in the biosphere  

Mini-activity: HIP DAD BOD pitch model  

Oct. 10  

*Incentives*  

**Due:** Portfolio Goals + Panel  

Key aspects: Size of incentive, pair with behavior, visibility, reward positive behavior, avoid creating negative reactions.  

Mini-activity: Student-led ________________________  

Oct. 12  

Fall Break  

Oct. 17  

*Convenience*  

Key aspects: Identify external barriers; matter of perception  

Mini-activity: Student-led. Setting up your portfolio online.
Oct. 19  *Developing strategies further*  
Due: Portfolio Assets + Panel

Key aspects: Optimizing the strategy; fostering social norms; piloting the campaign; public consultation

Mini-activity: Student-led Customer based design
Mini-activity: Student-led: BMC revisited to inform customer based design

Oct. 24  *Piloting*  
Assignment: Portfolio Stakeholders

Key aspects: Use minimum of two fresh focus groups; random assignment; measure change; calculate ROI; revise as necessary

Mini-activity: Student-led: Quality control of focus group process

Oct. 26  *Step 5 Broad-scale Implementation*  

Key aspects: Collect baseline information; ascertain impact; self-evaluation; reporting for transparency

Mini-activity: Student-led ______________________
Oct. 31  
*Sharpening the Saw*  
**Due:** Portfolio Stakeholders + Panel  

Nov. 2  
*De-briefing session: Self-critique and co-evaluation of our process*  
**Resources:** Rio Grande Company [team evaluation principles; form](#)

**Part III. Co-creating Our Collective Action**

**Nov. 7**  
Mini-activity: Student-led ______________________

**Nov. 9**  
Mini-activity: Student-led ______________________

**Nov. 14**  
Mini-activity: Student-led ______________________

**Nov. 16**  
**Due:** Portfolio Discovery + Panel  
Mini-activity: Student-led ______________________

**Nov. 21**  
**Assignment:** Portfolio Innovation  
**Resource:** Diamandis (2012, Ch. 17) Innovation  
Mini-activity: Student-led ______________________

**Nov. 23**  
University holiday

**Nov. 28**  
Mini-activity: Student-led ______________________

**Nov. 30**  
Mini-activity: Student-led ______________________
Dec. 5  Sharing with our community  
Due: Portfolio Innovation + Panel

Dec. 7  Evaluation of co-creation learning process

Addendum: Community engagement resources

Possible clients:
- Healthy Futures; Flowers & Honey
- Zoey Fink (Tres Hermanas refugee project)
- UNM and Sustainability Studies Program 10th anniversary

Community assets:
- Sustainability Studies list of community partners
- Claudia Isaac presentation – Community Capacity and Strategic Asset
- Gary Oppedahl (City Economic Development)

Theory of participatory management:
- Rio Grande Company:
  a) Concept of participatory management
  b) Principles of team evaluation
  c) Team evaluation form

Entrepreneurship:
- WESST, see the break-even calculator
- Rob Delcampo (Innovation Academy, Innovate ABQ)
  a) Economic context of Albuquerque
  b) Entrepreneurial ‘ecosystem’

Renewable energy and conservation:
- Rick Rennie (High Five; presentation)
- Deployment of PV in the US