

## **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.

Farrar, Straus and Giroux, New York. 486 pp. Hardcover ISBN: 978-0-374-27353-8. Ebook ISBN: 978-0-374-71514-4.

Diamandis, P.H. and S. Kotler. 2012. Abundance: The Future is Better than You Think. Free Press.

McKenzie-Mohr, D. 2011. [Fostering sustainable behavior: Community-based social marketing](#).

Mullainathan, S. and E. Shafir. 2013. Scarcity: The New Science of Having Less and How It Defines Our Lives. Picador.

Typhina, E. 2017. Changing *our* environmental future. Pp. 145-158 *In* Milstein et al. 2017. Environmental Communication Pedagogy and Practice. Routledge.

Stoknes, P. E. 2015. What We Think About When We Try Not to Think About Global Warming: Toward a New Psychology of Climate Action. Chelsea Green.

Toyama, K. 2015. Geek Heresy: Rescuing Social Change from the Cult of Technology. Public Affairs.

Wenger, E. 2000. [Communities of practice and social learning systems](#). *Organization* 7(2):225-46.

**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

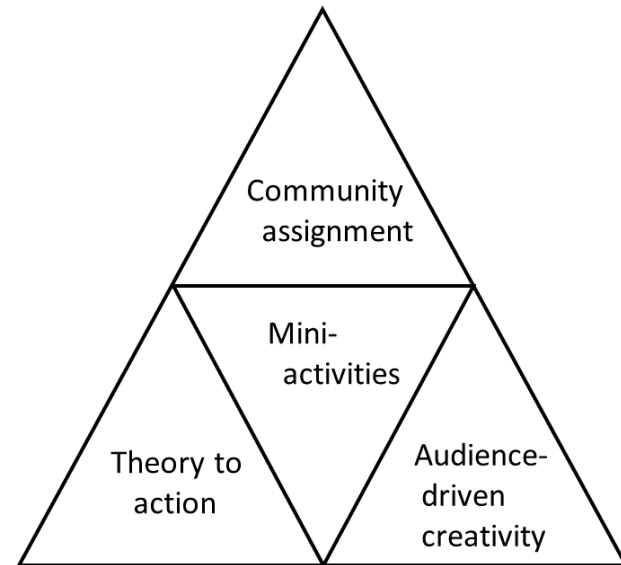
violate this principle, please access the resources available to you on campus, especially the LoboRESPECT Advocacy Center and the support services listed on its website (<http://loborespect.unm.edu/>). Please note that, because UNM faculty, TAs, and GAs are considered "responsible employees" by the 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>. 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."

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

<b>Assignments and Grading</b>	<b>%</b>	<b>Due</b>	<b>Notes</b>
<u>Looking within:</u>			
Tech Audit or Tech Fast	10	Sept. 7	How important is technology in my life?
My Worldview	10	Sept. 21	What do I believe? What do others believe?
Panel participation	5	Various	Join a panel to share insights about one of your assignments.
<u>Building your sustainability portfolio:</u>			
Prospecting stage	10	Sept. 28	Brainstorming, literature review, precedents, networking.
Purpose & SMART <a href="#">goals</a>	10	Oct. 10	What is my burning desire as an agent of change? <a href="#">Thinking long-term</a> .
Asset audit	10	Oct. 19	Resources, people, organizations, places, skills. <a href="#">Toolkit for how and why</a> .
Stakeholders	10	Oct. 31	Whom do I serve? What do they want or need? <a href="#">Engagement tips</a> .
Discovery	10	Nov. 16	Questions; strategy for investigation. <a href="#">Human-centered design</a> .
Innovation	10	Dec. 5	Disrupting the status quo; solutions; going to the next level. <a href="#">Effectiveness</a>
<u>Mini-activity</u>	<u>15</u>	Various	Create and lead a community of practice learning session.
	100		

### 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 Wegner'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). With these, we will exercise Wenger's concepts to realize tangible benefits for our chosen clients. One, is the UNM campus in context of the 10<sup>th</sup> anniversary of the Sustainability Studies Program. Two, a start-up non-profit project, *Flowers & Honey*, designed to employ formerly homeless persons.



*After Typhina (2017)*

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*

**Aug. 24.** *Theory of Social Learning Systems*

**Read:** Wenger, E. 2000. [Communities of practice and social learning systems](#). *Organization* 7(2):225-46.

Overview: Results of skills inventory

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

**Assignment:** [My Worldview](#). See [Koltko-Rivera \(2004\)](#)

**Aug. 29.** *How our course will run*

**Read:** [Typhina, E. 2017](#). Changing *our* environmental future. Pp. 145-158 *In* Milstein et al. 2017. Environmental Communication Pedagogy and Practice. Routledge.

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 10<sup>th</sup> anniversary of Sustainability Studies

**Aug. 31. *Motivation for ‘learning to learn’ for a sustainable world***

**Read:** [Chapter 2](#) from

Friedman, Thomas L. 2016. Thank You for Being Late: An Optimist’s Guide to Thriving in the Age of Accelerations. Farrar, Straus and Giroux, New York. 486 pp.

**Read:** [Chapter 6](#) from

Diamandis, P.H. and S. Kotler. 2012. Abundance: The Future is Better than You Think. Free Press.

Supplemental alternative view about technology, [Chapter 12](#) from:

Huesemann, M. and J. Huesemann. 2011. Techno-Fix: Why Technology Won’t Save Us or the Environment. NSP.

Supplement: [Berger and Fisher \(2016\)](#). Importance of education for developing the work force.

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](#)

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

**Sept. 5. *Tactics for fostering sustainable behavior***

**Read** following chapters: Preface, How to Use This Book, and Fostering Sustainable Behavior, from McKenzie-Mohr, D. 2011. [Fostering sustainable behavior: Community-based social marketing](#).

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

Toyama, K. 2015. *Geek Heresy: Rescuing Social Change from the Cult of Technology*. Public Affairs.

**Read:** Step 1: Selecting Behaviors, from

McKenzie-Mohr, D. 2011. [Fostering sustainable behavior: Community-based social marketing](#).

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

**Sept. 12. *It's all about attitude***

**Read:** [Chapter 5](#) from

Stoknes, P. E. 2015. *What We Think About When We Try Not to Think About Global Warming: Toward a New Psychology of Climate Action*. Chelsea Green.

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:

McKenzie-Mohr, D. 2011. [Fostering sustainable behavior: Community-based social marketing](#).

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:

McKenzie-Mohr, D. 2011. [Fostering sustainable behavior: Community-based social marketing](#).

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:  
McKenzie-Mohr, D. 2011. [Fostering sustainable behavior: Community-based social marketing](#).  
Key aspects: Effect change by making it easy for folks to commit.

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

**Sept. 26**      *Building community support*

**Read:** Social Norms: Building Community Support, from:  
McKenzie-Mohr, D. 2011. [Fostering sustainable behavior: Community-based social marketing](#).  
Key aspects: People look to others as a guide to their own behavior

Mini-activity: Evaluation of survey results

**Sept. 28**      *Social diffusion*

**Due: Portfolio Prospecting Stage + Panel**

**Read:** Social Diffusion, Speeding Adoption, from:  
McKenzie-Mohr, D. 2011. [Fostering sustainable behavior: Community-based social marketing](#).  
Key aspects: Importance of conversations with people we trust

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

**Oct. 3**      *Prompts to action*

**Assignment: Portfolio Goals**

**Read:** Prompts: Remembering to Act, from:  
McKenzie-Mohr, D. 2011. [Fostering sustainable behavior: Community-based social marketing](#).  
Key aspects: People need reminding

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

**Oct. 5**      *Communication*

**Assignment: Portfolio Assets**

**Read:** Communication: Creating Effective Messages, from:

McKenzie-Mohr, D. 2011. [Fostering sustainable behavior: Community-based social marketing](#).

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**

**Read:** *Incentives: Enhancing Motivation to Act*, from:

McKenzie-Mohr, D. 2011. [Fostering sustainable behavior: Community-based social marketing](#).

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*

**Read:** *Convenience: Making it Easy to Act*, from:

McKenzie-Mohr, D. 2011. [Fostering sustainable behavior: Community-based social marketing](#).

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**

**Read:** *Developing Strategies Further*, from:

McKenzie-Mohr, D. 2011. [Fostering sustainable behavior: Community-based social marketing](#).

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

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Mini-activity: Student-led Customer based design

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

**Oct. 24**      *Piloting*

**Assignment: Portfolio Stakeholders**

**Read:** *Piloting*, from:

McKenzie-Mohr, D. 2011. [Fostering sustainable behavior: Community-based social marketing](#).

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*

**Read:** *Broad-scale implementation*, from:

McKenzie-Mohr, D. 2011. [Fostering sustainable behavior: Community-based social marketing](#).

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**  
**Read:** *Concluding Thoughts*, from:  
 McKenzie-Mohr, D. 2011. [Fostering sustainable behavior: Community-based social marketing](#).
- Nov. 2**      *De-briefing session: Self-critique and co-evaluation of our process*

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

- Nov. 7**      **Assignment: Portfolio Discovery**
- Nov. 9**      Mini-activity: Student-led \_\_\_\_\_
- Nov. 14**      Mini-activity: Student-led \_\_\_\_\_
- Nov. 16**      Mini-activity: Student-led \_\_\_\_\_
- Nov. 16**      **Due: Portfolio Discovery + Panel**
- 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**

Sustainability Studies list of [community partners](#)

Rio Grande Company [corporate culture principles](#); [team evaluation tool](#)

[WESST](#) , see the [break-even calculator](#)

[Healthy Futures](#); Flowers & Honey

Rob Delcampo (Innovation Academy, [Innovate ABQ](#))

Rick Rennie ([High Five](#); [presentation](#))

Claudia Isaac presentation – [Community Capacity and Strategic Asset](#)

[Deployment of PV in the US](#)

Gary Oppedahl ([City Economic Development](#))

Zoey Fink ([Tres Hermanas refugee project](#))

Regina Wheeler, Positive Solar. [Solar as Disruptive Opportunity](#)