Spring 2019
FYSE 126-01: Technology, Innovation, and Sustainability

Instructor: Lancie Affonso (affonsol@cofc.edu)
Class: ECTR 110  MW 2:00-3:15 pm
Office Hours: MW 1:00-2:00 am Berry 110
Tel: 843-628-6357

Peer Facilitator Session:

Catalog Description:
This first-year seminar offers students the opportunity to analyze organizations whose strategies and technology products are designed to offer innovative solutions to some of the twenty-first century's most difficult societal challenges. A new generation of profitable businesses are actively engaged in cleantech, renewable energy, and financially successful product system designs that attempt to meet our economic development aspirations while addressing our social and ecological challenges. Students will examine the political economy and business implications of new and innovative technological applications for sustainable development.

Required Texts:
2. Free Online Textbook: Sustainability, Innovation, and Entrepreneurship By Andrea Larson (PDF of entire textbook)

Evaluation Schedule:
15% Group Presentations: SoS/Larsen
15% DEMOS Presentations
10% FYE Participation
10% Class Discussions
15% Speaker + Reflection-Action Journal
15% Changemaker Challenge
20% Final PSP

Grading Scale:
100 - 94 (A); 93 – 90 (A-) 89 - 87 (B+); 86 - 83 (B); 82 – 80 (B-) 79 -77 (C+); 76 - 73 (C); 72 – 70 (C-)69 - 67 (D+); 66 - 63 (D); 60 – 62 (D-) else (F)

Student Honor Code:

Disabilities:
If you have a documented disability and are approved to receive accommodations through SNAP Services, please contact me.

Page 1 Last Updated: 1-4-2019
**COURSE OBJECTIVES:**

- Provide information, frameworks, and tools for identifying, analyzing, and pursuing sustainable business opportunities
- Explore key drivers of new markets and the rapidly changing dynamics between industrial activity and ecological and social stability
- Examine examples of innovators implementing successful sustainability strategies
- Investigate new markets and technologies in clean commerce products and services

**FYSE Learning Objectives:**

This interdisciplinary course will address the learning outcomes for the First Year Experience program:

- Familiarity with appropriate data, information and knowledge-gathering techniques and research skills in the discipline;
- Using appropriate critical thinking skills and problem-solving techniques in a variety of contexts;
- Using effective skills and strategies for working collaboratively.

**NOTE:** Your attendance & participation in class as well as the peer facilitator (PF) led sessions is included as a graded component in this course (class discussions)

### FYSE 126 Tentative Schedule Spring 2019

<table>
<thead>
<tr>
<th>Week</th>
<th>Day</th>
<th>Topics</th>
<th>Assignments</th>
</tr>
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<tbody>
<tr>
<td>2</td>
<td>M 14</td>
<td>Read Chapter 1: <em>Extraction</em> + (10 Things)</td>
<td>SS Quiz</td>
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<tr>
<td>Jan</td>
<td>W 16</td>
<td>ENTR Speaker: <a href="https://www.krissawatry.com/">Kriissa Watry</a> (Wells Fargo, Beatty Auditorium)</td>
<td>LinkedIn Profile Checklist</td>
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<td>Video: <em>Story of Stuff</em></td>
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<td>3</td>
<td>M 21</td>
<td>MLK Holiday</td>
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<td></td>
<td>W 23</td>
<td>ENTR Speaker: Jennifer Garr</td>
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<td>4</td>
<td>M 28</td>
<td>Chapter 1: <em>Extraction</em> + Group Formation <em>Changemaker Challenge</em> Workshops</td>
<td>20 Gallon Challenge</td>
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<td>News: Science Daily</td>
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<td>Feb</td>
<td>W 30</td>
<td>ENTR Speaker: <a href="https://www.youtube.com/watch?v=Q7MNLuxdIOg">Derek Snook, TedX Video</a></td>
<td>Video: Critique of <em>Story of Stuff</em></td>
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<td>5</td>
<td>M 4</td>
<td>CH 1 Presentation: Water Chapter 2: <em>Production</em> + CH 2 Presentation: Toxins</td>
<td><em>CofC Sustainability</em></td>
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<td>W 6</td>
<td>Elevator Pitch 1: <em>CofC Sustainability Projects</em> + <em>ESPC Student Projects</em></td>
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<td>6</td>
<td>M 11</td>
<td>Chapter 3: <em>Distribution</em> + Presentation: <em>Amazon, Environmental Record</em></td>
<td>Zero Waste</td>
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<td></td>
<td>W 13</td>
<td>ENTR Speaker: <a href="https://www.linkedin.com/in/ryaneleuteri">Ryan Eleuteri</a></td>
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<td>7</td>
<td>M 18</td>
<td>Chapter 4: <em>Consumption</em> + Presentation</td>
<td>The Story of Stuff: Increasing Environmental Citizenship</td>
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<td>W 20</td>
<td>ENTR Speaker: <a href="https://www.linkedin.com/in/tyler-gilliam">Tyler Gilliam</a></td>
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<td>8</td>
<td>M 25</td>
<td>Chapter 5: <em>Disposal</em> + Presentation</td>
<td>Carbon Footprint</td>
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<td>W 27</td>
<td>ENTR Speaker: Tom Burger</td>
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<tr>
<td>9</td>
<td>M 4</td>
<td>Larsen: Ch 1: History Sustainability, Innovation, and Entrepreneurship Ch 1 Discussion &amp; Presentation</td>
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Personal Sustainability Project (PSP)- Reflections on the personal and social challenges of sustainability

As individuals, and collectively in organizations, we play a key role in the quest for sustainability. In order to ‘walk the talk’ of sustainability, thinking and acting globally and locally begins with us; personally as well as professionally. In addition, if we want to foster sustainable behaviors in others and in organizations, we need to understand why people resist sustainable practices. A useful source of knowledge is to examine what we do, or could do, as individuals and organizations to lead sustainable lifestyles.

Assignment Process (Paper should be 5 pages double spaced. 3 pages for the questions below and 2 pages on how you have met the 4 course learning objectives)

Format and Deadline: PDF or Word document uploaded to OAKS by 3pm April 26, 2018

Step 1: Undertake a personal audit of your sustainable practices using one of the personal footprint audits available online (Carbon Footprint Calculator). Please think about this in both your home and work life. Write and then record a summary of your findings in your paper in terms of your Ecological, energy, social and economic sustainability.

Step 2: Write and then record responses to any THREE (3) of the following questions. The questions ask for critical reflection but your reflection should be underpinned by a knowledge of theory and research.
What changes can or should you or your organization make?
In your response you might consider themes including:

- What is easy for you to do (change or continue to do) right now, or in the near future?
- Where do you want to make a commitment to improve your sustainability and focus your action?
- How will you go about doing so?

What would you like to change but would find difficult?
In your response you might analyse the barriers to changing those actions, such as personal attitudes, social or cultural contexts, and practical and social (systemic) barriers

What can we do to overcome barriers to change in ourselves?
In your response you might consider:

- What values and habits do you have that support sustainability?
- How did you come to have them?
- Do you have any values and habits that support unsustainable behaviours?
- How or why do you (we?) have them?

What does your experience and analysis suggest about fostering sustainable behaviors in others?
In your response you should consider how education can lead to change, and not simply awareness.

What are the implications for sustainability if we don’t change?
In your response you should focus on an issue of relevance to you.

Assessment Criteria for PSP

- Evidence of engagement with the personal implications of sustainability issues.
- Demonstrated understanding of the broader systemic contexts that influence personal and organizational choices including the constraints and opportunities provided by social and institutional contexts, and by cultural values, attitudes and beliefs.
- Analysis of personal and community contexts specific to you.