## Course Syllabus

**Course Title:** Special Topic: Intro to Energy Careers  
**Department:** STEAM  
**Curriculum:** Energy Management Program  
**Date submitted:** 11/29/18  
**Course Code:** NRG*298  
**Prerequisites:** None

### Course Descriptors
Make certain that the course descriptors are consistent with college and Board of Trustees policies, and the current course numbering system.

### Course Type:
- **A:** Clinical  
- **B:** Lab  
- **D:** Distance Learning  
- **I:** Individual/Independent  
- **L:** Lecture  
- **N:** Internship  
- **M:** Seminar  
- **P:** Practicum  
- **U:** Studio  
- **X:** Combined Lecture/Lab  
- **Y:** Combined Lecture/Clinical/Lab  
- **Z:** Combined Lecture/Studio

### Elective Type:
- **G**

### Credit Hours:
- **3**

### Developmental:
- **Yes/No:** No

### Lecture:
- **3**

### Clinical:
- **0**

### Lab:
- **0**

### Studio:
- **0**

### Other:
- **0**

### TOTAL:
- **3**

### Class Maximum:
- **24**

### Semesters Offered:
- **Fa/Sp**

### Ability Based Education (ABE) Statement
At Tunxis Community College students are assessed on the knowledge and skills they have learned. The faculty identified the General Education Abilities critical to students' success in their professional and personal lives. In every class, students are assessed on course abilities, sometimes program abilities, and, in most classes, at least one General Education Ability. Students will receive an evaluation of the degree to which they have demonstrated or not demonstrated that General Education Ability.

### Catalog Course Description:
Explore current issues surrounding climate change, sustainability and energy. Understand the effects of climate change and opportunities in clean energy and resource conservation as integral parts of society. Students are introduced to career opportunities in energy management, renewable energy, and sustainability.

### Topical Outline:
This class follows a Reading/Lecture format. Subject matter experts/guest speakers will be interviewed by the instructor and students. Each learning module will include a focus on career opportunities. The following topics will be covered during the semester:
1: Introduction, Course Overview  
2: What is Sustainability?  
3: Climate Change  
4: Politics, Economics, Population  
5: Solutions – Clean Energy and Sustainable Buildings
6. The Energy Grid  
8. Commercial Buildings  
9. Sustainable Homes  
9: Renewable Energy  
10. Emerging Technologies  
11. Climate Resiliency  
12. Who Pays?

Upon successful completion of this course, the student will be able to do the following:

1. demonstrate an understanding of, and ability to use critical thinking skills when reading and discussing course readings
2. demonstrate an understanding of key concepts
3. synthesize information and present critical information in writing and in class presentations
4. utilize data to support a written report
5. differentiate and identify various career options in Sustainability

Outcomes:  
Describe measurable skills or knowledge that students should be able to demonstrate as evidence that they have mastered the course content.

PROGRAM:  
(Numbering reflects Program Outcomes as they appear in the college catalog)

5. develop and evaluate inferences and predictions that are based on collected data

GENERAL EDUCATION:  
(Numbering reflects General Education Outcomes as they appear in the college catalog)

1. Critical Analysis/ Logical Thinking - Students will be able to organize, interpret, and evaluate evidence and ideas within and across disciplines; draw reasoned inferences and defensible conclusions; and solve problems and make decisions based on analytical processes.

   Demonstrates: Identifies the issue(s); formulates an argument; explains and analyzes relationships clearly; draws reasonable inferences and conclusions that are logical and defensible; provides support by evaluating credible sources of evidence necessary to justify conclusions.

   Does Not Demonstrate: Identifies few or no issues; formulates an argument without significant focus; provides an unclear explanation of analysis and relationships; drawing few reasonable inferences and conclusions that are illogical and indefensible; provides little to no support using credible sources of evidence necessary to justify conclusions.

Evaluation:  
List how the above outcomes will be assessed.

Assessment will be based on the following criteria:

1. Quizzes and Exams
2. Homework - Problem Sets, Short Answer Questions, and Research Problems
3. Class Participation
4. Term Project and/or Final Exam

Instructional Resources:
List library (e.g. books, journals, online resources), technological (e.g. Smartboard, software), and other resources (e.g. equipment, supplies, facilities) required and desired to teach this course.

Required: [No special facilities are required.]
Desired: None

Textbook(s)

Plan B: Mobilizing to Save Civilization, Lester R. Brown
Hot, Flat & Crowded, Thomas Friedman
earth, Bill McKibben

Class Handouts
Online readings

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