

# Sustainability Infusion Project White Paper

Mark P. Vrtiska May 2021

## **Title of Module/Activity**

Introduction to Sustainability and Resilience Concepts

## **Course Name and Course Number**

NRES 111 – Wildlife and Natural Resource Conservation (non-majors)

## **Length of Module/Activity**

1-2 in-class sessions and one exam.

## **Primary Learning Outcomes (s)**

The course is targeted for non-majors regarding basic concepts in wildlife and natural resource conservation. The purpose of course is to expand knowledge and understanding and “general public” support for wildlife and natural resource conservation. Increased knowledge and understanding of the concepts of sustainability and resilience are critical for future conservation efforts. The primary learning outcomes to be included in the course material related to sustainability and resilience will be:

- Students should be able to describe what sustainability and resilience mean in the context of wildlife and natural resource conservation.
- Students should be able to identify and explain important factors that are necessary to achieve successful sustainability projects or collaborations.
- Students should identify and explain why some projects or collaborations failed to achieve sustainability.
- Students should be able to describe what they may need to do to achieve a sustainable project or collaboration.

## **Resilience and/or Sustainability Connections**

The class is targeted at non-majors to introduce them into basic concepts of wildlife and natural resource conservation. Given the anticipated class demography, most related concepts will be provided at the introductory level. Thus, the concepts of resilience and sustainability will be at the introductory level. They also need to be cognizant that these concepts will be necessary for successful wildlife and natural resource conservation into the future. Additionally, some students in the future may want to or actually participate in some sort of sustainability program or issue, they also need to be prepared to successfully contribute to that program or issue. My anticipation is that the majority of students taking this course will likely not hear or be exposed to these concepts past this course so at least a good introduction is necessary.

## **Identify One or More of the Key Sustainability Competencies Addressed:**

Based on the key competencies of Wiek et al. (2011), I believe three competencies will be addressed:

- **Values Thinking** – Values or normative competence is the ability to collectively map, specify, apply, reconcile, and negotiate sustainability values, principles, goals, and targets. Students should be able to describe the importance of sustainability towards multiple goals by identifying the need for wildlife and natural resource conservation and how sustainability is integral to conservation efforts.
- **Strategic Thinking** – Strategic competence is the ability to collectively design and implement interventions, transitions, and transformative governance strategies toward sustainability. Students should be able to identify and explain the components of successful sustainability programs.
- **Collaboration competence** – Collaboration or interpersonal competence is the ability to motivate, enable, and facilitate collaborative and participatory sustainability research and problem solving. Students will work together to identify those components of successful sustainability programs.

### **Instructional Strategies**

The basic learning strategy will be part of the (cooperative) exam material that covers sustainability and resilience. I will provide material on sustainability and resilience, including important factors or components that are needed to achieve successful sustainability. I will provide real-world examples of sustainability projects and/or collaborations – both successful and unsuccessful. For the exam, in the initial 20 minutes, students will be randomly placed into groups of 4-5 individuals. In the groups, the students will have to identify and explain the important factors or components for successful sustainable project. The students will also provide a score for themselves and other group members in terms of contribution for the answer they provide.

### **Assessment Strategy**

The assessment strategy will include students being able to identify or correctly define the concepts of sustainability and resilience on an exam.

For the cooperative exam, I will include and provide to students a rubric for scoring the cooperative exam. The rubric will be similar to this:

<b>Topic</b>	<b>10 pts</b>	<b>7 pts</b>	<b>4 pts</b>	<b>0 pts</b>
Identified important components	Identified all	Identified most	Identified some	Identified none
Explanation of why components are important	Full	Mostly	Partial	None

Finally, students grade themselves and others in group on scale of 1-5 (pts). Scores will be averaged for each student.