

Teaching and Learning (T&L) Activity **Planning** Framework¹

This is a heuristic for *planning* a teaching-and-learning activity. For submitting your *final ideas to be published* on our Edmonds Community College Sustainability Website, please use the more specific format given below.

Title: Tragedy of the Commons

Developer's Name and Department/Discipline

Andy Williams – Business Division – Accounting and Economics

Learning Goals and “Big Ideas”:

As a result of engaging in your T&L activity, what do you hope that your students will know, understand, and be able to do? And what “big idea” in your discipline, and what “big idea” or topic in sustainability, are involved?

Learning Goals

- **Identify direct and indirect costs of using resources.**
 - **Describe how incurring costs influences behavior and encourages efficient use of resources.**
 - **Describe how costs of using commonly-owned resources are externalized, that is, can be transferred to society as a whole, thereby discouraging efficient use of resources.**
 - **Provide examples of both market-based and governmental remedies to address this ‘Tragedy of the Commons.’**
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Assignment and Assessment:

What assignment will indicate students’ achievement of these goals and their understanding of the big ideas?

As the last week’s assignment in Microeconomics, students are asked to discuss the following:

What is the Tragedy of the Commons? How does this idea relate to spillover costs, global warming, overfishing of seafood resources,

¹ This planning framework is adapted from The Washington Center’s Curriculum for the Bioregion Initiative and from the book *Scientific Teaching* and Diane Ebert-May’s class “Pathways to Scientific Teaching” at Michigan State University.

traffic congestion, and air pollution? What role might government have in addressing these issues? What role might market forces have in addressing these issues? Provide examples and explanations!

Activities:

What will be the sequence of teaching-and-learning activities (in-class activities and/or homework) that will lead up to the final assignment/assessment?

The core of the microeconomics course discusses how market forces, costs and benefits, influence the behavior of both producers and consumers. The market model assumes that producers and consumers will act rationally in their own interest to use resources efficiently to achieve their goals, if those producers and consumers incur the full costs of using their resources. We explore this model through readings, discussions and assignments for the bulk of the course.

At the end of the course, I present a unit on market failures, describing situations where producers and consumers do not utilize resources efficiently, resulting in overuse and inefficient use of resources. The classic example is called “The Tragedy of the Commons,” in which shepherds allow their flocks to overgraze the village green (The Commons) when there is no self-regulating mechanism (a cost) to encourage efficient use. The degradation of the resource results in no one being able to utilize the resource in the long run.

Then, I ask students to provide examples of these sorts of market failures, as well as the common remedies for those failures. The discussion usually includes such topics as global warming, the pool of plastic in the Pacific Ocean, air pollution, over-fishing, transportation issues and other issues of sustainability.

Possible economic remedies for these environmental problems include government regulation of resource utilization (quotas and licensing requirements), fines and penalties, as well as increasing the traceability of the costs to the users to encourage efficient utilization.

Campus or Community-Based Components:

Are there campus-based or community-based resources might you use?

Students use the library as well as the internet to research examples and remedies from common sources for current events.

Additional resources:

What readings, websites, films, or other resources are necessary for the T&L activities?

Teaching and Learning (T&L) Activity **Submission** Framework²

Requested format for **final, published** curriculum ideas for the Edmonds Community College Sustainability Initiative Website.

- 1) **Abstract:** title of activity; your name and email address; your discipline/department; a paragraph-long overview of your integrative assignment. Be sure to mention what sustainability and disciplinary “big ideas” are involved.

Tragedy of the Commons

Andy Williams – Business Division – Accounting and Economics

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Learning Goals

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- **Describe how incurring costs influences behavior and encourages efficient use of resources.**
- **Describe how costs of using commonly-owned resources are externalized, that is, can be transferred to society as a whole, thereby discouraging efficient use of resources.**
- **Provide examples of both market-based and governmental remedies to address this ‘Tragedy of the Commons.’**

2) Introduction and Overview

- a) Introductory information about context, rationale, and purpose for this activity. Context would include the type(s) of courses for which this activity would be appropriate.
- b) Timeframe: how much class-time, and/or how much of the course, this activity will require to carry out. Also, where you use this activity in the term: early, middle, late.
- c) The assignment: a brief description of the integrative assignment that includes both the “big idea” in your discipline and the sustainability “big idea;” also any skills or habits of mind you hope the activity will foster.

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As the last week's assignment in Microeconomics, students are asked to discuss the following:

What is the Tragedy of the Commons? How does this idea relate to spillover costs, global warming, overfishing of seafood resources, traffic congestion, and air pollution? What role might government have in addressing these issues? What role might market forces have in addressing these issues? Provide examples and explanations!

NOTE: Keep the number of the "big ideas" as low as possible to focus your activity and the student learning on the main, key ideas you want students to learn. Using only one idea in your discipline and one idea in sustainability is recommended.

3) The actual teaching-and-learning activities:

- a) a description of the set-up or preliminaries;
- b) the main learning activities; and
- c) the assignment task.

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4) Optional Assessment elements --- if not already described in (3), describe how you will assess student learning in this assignment.

Students are assessed both on their development of examples of the Tragedy of the Commons, as well as their responses and comments to other students' postings. The rubric for the assessment is the same as other weekly discussion topics in the online class.

5) Resources, if needed: Community partners, websites, written material, videos/film, etc. Limit these to resources that support or extend this activity, not resources related to your entire course.

Students use the library as well as the internet to research examples and remedies from common sources for current events.

6) Optional Teacher notes: Any reflections or cautions, or special suggestions or observations related to the student learning you have observed.