NRRT521 Sustainable Ski Area Management

COURSE SYLLABUS

INSTRUCTOR INFORMATION

Instructor: Sunshine Swetnam
Phone: (970) 491 7214
Text Phone: (970) 980 7399
Email: Sunshine.Swetnam@colostate.edu
(Responses to email will be provided within 36 hours during weekdays.)

TECHNICAL SUPPORT

Need technical assistance with your Canvas course? Try the following:

- Visit the Help Desk web page to troubleshoot common browser and Java issues.
- Call 970-491-7276.
- Email Help Desk Support.

COVID-19 INFORMATION

It is important that you continuously monitor CSU’s COVID-19 website for the latest information. Given the rapidly changing nature of the virus, CSU policies and procedures are also likely to change throughout the semester. Please also ensure that you are checking your student email account for regular newsletters and emails pertaining to the university’s response.

https://covidrecovery.colostate.edu/

COURSE DESCRIPTION

This course provides an in-depth understanding of sustainability issues that relate specifically to ski resort development and management. As an industry that is heavily reliant upon snowfall and the beauty of the natural environment, there have been increasing calls for ski areas to adopt sustainability as a core business philosophy. This goes beyond implementing various sustainability initiatives that address the impacts associated with ski area development, to the adoption of environmental management systems (EMS) that increase operational efficiency and effectiveness,
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emphasize corporate social responsibility (CSR) and the building of positive stakeholder relationships, and encourage a holistic approach to environmental stewardship throughout the entire resort organization. Such resort-wide efforts require sound leadership and communication to ensure the participation of all stakeholders, whether guests, employees, local communities, or shareholders, so that environmental, socio-cultural, and economic benefits can be attained. This is particularly evident in the efforts of the ski industry to address climate change, with the successful implementation and communication of adaptation and mitigation strategies the result of sound planning and economic, socio-cultural, and environmental analyses.

Over the past decade or so, the importance of incorporating a sustainability focus has become an integral part of the ski industry. I’m excited to share with you some of the innovative and new initiatives that are out there and most importantly, how you can learn to assess and implement sustainability projects that are right for different ski areas of all sizes.

**Course Prerequisites and Corequisites**

NRRT520 Perspectives on Ski Area Management (this can be taken concurrently with this course)

**Course Objectives**

Upon completion of this course, you will be able to:

- Apply the concepts of sustainability, sustainable development, and sustainable tourism to a ski area context
- Demonstrate an understanding of corporate social responsibility as it pertains to the ski industry
- Discuss the role of leadership in sustainable ski area management
- Critically discuss the economic rationale for adopting sustainability as a core business philosophy
- Demonstrate the importance of sustainability communication for ski areas
- Compare and contrast various environmental management systems (EMS) that have been adopted by ski areas
- Identify and explain the importance of managing and developing stakeholder relationships
- Analyze the effects of climate change on the ski industry
- Evaluate different climate change adaptation and mitigation strategies undertaken by ski areas
- Develop a complete sustainability proposal to be delivered to senior management
There are no prescribed texts for this course.

**OTHER REQUIRED OR SUPPLEMENTAL MATERIALS**

- **Module 1.**
  - Williams, Peter, W., Gill, Alison, M., & Zukiwsky, Jeff, M. (2016). Tourism-led Amenity Migration in a Mountain Community: Quality of Life Implications for Fernie, British Columbia. In H. Richins & S. Hull, John (Eds.), *Mountain Tourism: Experiences, Communities, Environments and Sustainable Futures* (pp. 97–110). Oxfordshire: CABI.

- **Module 2.**

- **Module 3.**
    - [http://discovery.library.colostate.edu/Record/.b44408110](http://discovery.library.colostate.edu/Record/.b44408110)

- **Module 4.**


• **Module 5.**


• **Module 6.**


• **Module 7.**


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- **Module 8.**


**COURSE PRESENTATION AND PROCEDURES**

Content for this course is organized into eight weekly modules. Each module is divided up into a number of parts. Within each part, a combination of readings, narrated Powerpoint presentations, video interviews with ski area managers, and graded assignments are provided. Each of these activities are organized in sequential order, and should be completed as such. Discussion prompts are also scattered throughout the module to help stimulate your thinking. Make sure that all assigned tasks and readings are completed prior to moving on to the next module.

**PARTICIPATION EXPECTATIONS**

This is a 2 credit course taught over an 8 week period. To get the most out of this course, it is recommended that you devote 6-8 hours a week to do the weekly readings, read/listen/watch presentations, contribute to discussion forums, and complete your assessments. The recommended break-down of your time is as follows:

- 3 hours a week – weekly readings and taking notes
- 2 hours a week – reading/listening to presentations and taking notes
- 3 hours a week – contributing to discussion forums/completing assessments

This is a graduate level course that examines a range of theoretical concepts and practical examples of sustainable ski area management and operations. There are high expectations regarding the quality of the work presented and the meeting of assessment deadlines. It will also be necessary to take the time to allow for critical thinking and analysis of concepts and issues presented in order to obtain a high grade.

As an online course, I understand that at times it can feel as if you are going through this learning experience all alone. Please note that this is not the case - as the instructor, I am here to support you.
along the way and answer any questions or concerns you may have. As such, if you are encountering an issue, please do not hesitate to reach out straight away. I strive to respond as quickly as possible, as I understand that you may only have pockets of time here or there to engage with the course between work, family, and life in general. In particular, if you are having trouble with any of your assignments, please reach out prior to when the assignment is due. I am more than happy to provide guidance!

**GRADING**

As a student enrolled in this course, one of your responsibilities is to submit course work by the due dates listed in the course schedule. Grading of the weekly discussion posts and comments, the sustainability report analysis and your comparative report will be provided within one week of the due date. If, however, due to unforeseeable circumstances, the grading of your work takes longer than one week, I will keep you informed of my progress and make every effort to return your work with feedback as soon as I can.

<table>
<thead>
<tr>
<th>ASSIGNMENT*</th>
<th>GRADE POINTS</th>
<th>GRADE PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion exercise – Module 1.</td>
<td>30</td>
<td>6.5</td>
</tr>
<tr>
<td>Discussion exercise – Module 3.</td>
<td>30</td>
<td>6.5</td>
</tr>
<tr>
<td><strong>Major assignment: Sustainable Initiative Proposal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Identifying a sustainability initiative</td>
<td>50</td>
<td>11</td>
</tr>
<tr>
<td>• Triple Bottom Line assessment: Economic assessment</td>
<td>80</td>
<td>17</td>
</tr>
<tr>
<td>• Triple Bottom Line assessment: Socio-cultural and environmental assessment</td>
<td>80</td>
<td>17</td>
</tr>
<tr>
<td>• Sustainability initiative - Communication Plan</td>
<td>70</td>
<td>15</td>
</tr>
<tr>
<td>• Timeline and implementation schedule</td>
<td>70</td>
<td>15</td>
</tr>
<tr>
<td>• Complete sustainability initiative proposal</td>
<td>50</td>
<td>11</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>460</strong></td>
<td><strong>100</strong>%</td>
</tr>
</tbody>
</table>

*Keep a copy of all work created for the course, including work submitted through Canvas.

**Due to rounding the total of percentages may not equal exactly 100**

**GRADE DESCRIPTION**

<table>
<thead>
<tr>
<th>95-100% = A+</th>
<th>90-94% = A</th>
<th>85-89% = B+</th>
<th>80-84% = B</th>
<th>75-79% = C+</th>
<th>70-74% = C</th>
</tr>
</thead>
</table>

6
ASSIGNMENT DETAILS

DISCUSSION EXERCISE: DISCUSSION POST AND COMMENTS:

For Module 1 and 3, students will be expected to post a short written reflexive/synthesis paper, based on this week’s content. The paper will be based on one of the discussion prompts provided in this week’s content. This discussion should be posted directly onto Canvas under the relevant assignment page or attached as a MS Word Document that is no more than 1 page double-spaced. Referencing from the weekly readings and other sources is required, and correct APA 6th style is expected. The discussion exercise (discussion paper and comments) is worth 30 marks.

The discussion exercise is made up of two sections: a post and two comments. Your post is to be posted on the discussion page thread by Friday midnight (MST), of the relevant week. Students will then be expected to review and comment on a minimum of two DE posts from other students. Students will have until Sunday midnight (MST) that same week to post their comments. These comments should be posted directly to Canvas. A portion of the marks for your discussion exercise will depend on the quality of the writing, so be sure to proofread for errors in grammar and spelling prior to submission. Points will be subtracted for late submissions (1 point per day) unless you have reached out to the instructor prior to the due date to ask for an extension, and it is approved. To understand how the marking is undertaken for the discussion exercise, please refer to the marking rubric.

NRRT521 Marking rubric for discussion exercise

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Exemplary</th>
<th>Proficient</th>
<th>Below Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promptness and Initiative</td>
<td>6 Points</td>
<td>3 Points</td>
<td>0 Points</td>
</tr>
<tr>
<td></td>
<td>Posts original contribution, responds to at least two peers postings, within the required timeframe.</td>
<td>A discussion is posted but the student does not meet the requirement of commenting on two peer postings.</td>
<td>No discussion is posted at all.</td>
</tr>
<tr>
<td>Mechanics of Writing</td>
<td>6 Points</td>
<td>3 Points</td>
<td>0 Points</td>
</tr>
<tr>
<td>Relevance of Post</td>
<td>6 Points</td>
<td>3 Points</td>
<td>0 Points</td>
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<tr>
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</tr>
<tr>
<td>Post is highly related to assigned topics; cites at least one but preferably several credible references related to topic (text, website, or other credible/scholarly references); expresses opinions and ideas in a clear and concise manner with obvious connection to topic.</td>
<td>Discussion post is short in length and offers no further insight into the topic; opinions and ideas are stated clearly but occasionally there is a lack of connection to topic, and/or provides limited citations (from text, website, etc) for the community to reference.</td>
<td>Posts do not relate to the discussion; arguments made are not backed up by a reference; rehashes or summarizes other postings; unclear connection to topic; minimal expression of opinions or ideas.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Creating Community</th>
<th>6 Points</th>
<th>3 Points</th>
<th>0 Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequently attempts to motivate the group discussion; presents creative approaches to topic, can differ or counter peers points with diplomacy, if applicable. Refers to peer contributions. Creates community in the discussion.</td>
<td>Displays an effort to become involved with group; interacts with others and acknowledges posts of others.</td>
<td>Argumentative or abrasive. No peer interaction.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Critical Thinking/Analysis</th>
<th>6 Points</th>
<th>3 Points</th>
<th>0 Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interprets topic in accurate and insightful ways. Uses information thoughtfully, in a ways that are factually relevant and accurate; postings shows analysis, might offer alternatives or creative viewpoints based on concrete evidence.</td>
<td>Accurately interprets topic; uses main points of information from resources/references; may repeat the ideas of other but attempts to offer new insight; response does not provoke significant new thinking or further discussion.</td>
<td>Makes errors in interpreting topics; opinion-based comments only, with no support from the literature; superficial commentary.</td>
<td></td>
</tr>
</tbody>
</table>
SUSTAINABILITY INITIATIVE PROPOSAL

Due dates:

This overall sustainability proposal is divided into six steps and will make up most of your assessments for this course throughout the eight weeks. This will cumulatively result in a complete proposal which can be presented to senior level management.

• Step 1. Identifying your sustainability initiative  
  (Due Friday midnight (MST) Week 2)
• Step 2. Triple bottom line assessment: Economic assessment  
  (Due Friday midnight (MST) Week 4)
• Step 3. Triple bottom line assessment: Social and Environmental assessment  
  (Due Friday midnight (MST) Week 5)
• Step 4. Communication plan for the sustainability initiative  
  (Due Friday midnight (MST) Week 6)
• Step 5. Timeline for the sustainability initiative  
  (Due Friday midnight (MST) Week 7)
• Step 6. Presentation of the complete sustainability initiative  
  (Due Friday midnight (MST) Week 8)

Purpose

The purpose of this assignment is to create a complete proposal for a sustainability initiative that you believe senior management should consider implementing at your chosen ski area. Your proposal will either be for:

• a completely new initiative (e.g. installation of solar panels to power the base lodge)  
  OR

• an improvement on what already exists (e.g. upgrading a boiler/heater/lighting system in the base lodge)

Some examples of sustainability initiatives that can be implemented include:

• Lighting upgrades (this can be for an entire building, one big room, office space, etc.)
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- Solar panel installation
- Implementing an idle-free policy
- Heating upgrade for lift huts
- Boiler upgrades
- Mass transportation options (car pooling, biodiesel fuel for shuttle buses, shuttle-bus system)
- Sustainability evaluation of a proposed capital project (e.g. replacing a lift, retrofitting an existing building, building a new LEED certified building)

This is not a comprehensive list, but just some examples that have actually been proposed and implemented by different resorts.

**NOTE:** It is recommended that for this assignment, given that it is likely the first sustainability initiative proposal that you have undertaken, that you **stay away from waste reduction/recycling options**. The reason for this is the calculation process for CO\(_2\) and CO\(_2\)e emissions is much more complicated as certain waste/recycling products have different emissions, and many ski areas do not know how much waste in tons they produce. Rather, it will likely be much easier if you focus on a project that uses a fuel/energy source, as ski areas will know how much fuel/energy is used, the cost of the fuel/energy, and there are tables that exist that can help you calculate CO\(_2\)e emissions for different fuel/energy sources.

*This assignment has been designed with significant input from the Sustainability Coordinators/Directors at Alta Ski Area and Arapahoe Basin Ski Area. It is designed to incorporate many of the major tasks/foci that make up much of the job of a Sustainability Coordinator/Director at a ski area. Some of you may be surprised to find that a lot of this includes math and basic conversions from different units of measurement. The necessary information is provided in these assignment instructions to assist you in making these calculations.*

**Skills/knowledge:**

This assignment will help you practice and develop the following skills that are central to the role of a Sustainability Coordinator/Director at a ski area. These include:

- Accessing and collecting information from credible and reliable sources
- Calculation of greenhouse gas emissions associated with your proposed initiative
- Calculation of economic costs (installation and maintenance) associated with your proposed initiative
- Identification of socio-cultural impacts associated with your proposed initiative
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- Critical analysis of proposed initiatives based on various criteria (economic, environmental, social indicators)
- Selection and justification of appropriate communication and engagement methods, messaging, and timing to relevant stakeholders
- Identifying all necessary tasks and allocating these to different individuals/departments and within a particular timeframe
- Composing a well-organized, clear, and concise proposal suitable for senior management

Task:

To complete this assignment, you will need to complete each of the abovementioned six steps. These are outlined further below for each weekly submission.

This assignment will be presented as a complete report that will be proposed to senior level management. As such, it should be professional in its writing and presentation. This means it should be written in third person, and should include relevant headings and sub-headings. References should be included from the corresponding modules, and also from other relevant and credible sources. All references should follow the APA 6th format.

Criteria for success:

Please refer to the marking rubrics associated with each of the six steps of this assignment.

Step 1. Identifying your sustainability initiative

Due date:

- Friday midnight (MST) Week 2.

Purpose:

The purpose of this assignment is for you to identify and choose ONE sustainability initiative to propose for implementation at a specific ski area. Your proposal will either be for:

- a completely new initiative (e.g. installation of solar panels to power the base lodge)

OR
• an improvement on what already exists (e.g. upgrading a boiler/heater/lighting system in the base lodge)

Some examples of sustainability initiatives that can be implemented include:

• Lighting upgrades (this can be for an entire building, one big room, office space, etc.)
• Solar panel installation
• Implementing an idle-free policy
• Heating upgrade for lift huts
• Boiler upgrades
• Mass transportation options (car pooling, biodiesel fuel for shuttle buses, shuttle-bus system)
• Sustainability evaluation of a proposed capital project (e.g. replacing a lift, retrofitting an existing building, building a new LEED certified building)

This is not a comprehensive list, but just some examples that have actually been proposed and implemented by different resorts.

NOTE: It is recommended that for this assignment, given that it is likely the first sustainability initiative proposal that you have undertaken, that you stay away from waste reduction/recycling options. The reason for this is the calculation process for CO₂ and CO₂e emissions is much more complicated as certain waste/recycling products have different emissions, and many ski areas do not know how much waste in tons they produce, etc. Rather, it will likely be much easier if you focus on a project that uses a fuel source, as ski areas will know how much fuel is used, the cost of the fuel, and there are tables that exist that can help you calculate CO₂e emissions for different fuel sources.

Finally, when you are choosing your sustainability initiative, look ahead at what is required for the rest of this proposal, and determine whether you can find the necessary information to be able to do the subsequent calculations for the economic and environmental assessments. Some of this information will require some searching on the Internet and reaching out to relevant staff, so before you get too committed to an idea, make sure you can find what you need!

Skills/knowledge:

Step 1. will help you develop and practice the following skills:

• Research different sustainability initiatives that could be implemented at your chosen ski area
• Synthesize relevant information to determine which sustainability initiative will best fit your chosen ski area at this point in time
• Compose a well-organized, clear, and concise introduction that explains and justifies this sustainability initiative proposal in a suitable manner for senior management

Task:

To complete Step 1, you need to do the following:

1. Identify a sustainability initiative proposal that you would like to implement at a specific ski area
2. Research this sustainability initiative and identify the relevant information that you are going to need to gather in order to complete the entire assignment.
3. Begin reaching out to relevant companies, ski areas, and experts to help gather the necessary information to be able to complete this assignment.
4. Create a 2-page document that features size 12 font, double spaced (not including the reference list) that includes the following:
   a. An introduction to your proposed sustainability initiative. This should briefly explain what it is, why it is important, and how it is relevant to your chosen ski area. This should also briefly touch upon the need for this sustainability initiative and your chosen ski area.
   b. A more detailed discussion on the sustainability initiative and how it has been implemented at other ski areas (if it has) or by other businesses/industries (if it has)
   c. A section that justifies why you believe this sustainability initiative should be implemented. Be specific here and refer to the triple bottom line.

Note: This assignment will require you to put yourself out there and find out the relevant and necessary information. The Internet will be helpful in providing you with different specifications and customer reviews to help you identify what are some relevant and sustainable products. At the same time, it is important to reach out to relevant ski area staff (e.g. building maintenance staff, food and beverage managers, mechanics, etc.) that can help provide you with the information you require. All of this is a key part of the role of a Sustainability Coordinator/Director. For those of you not currently working at a ski area, and unable to access staff at a ski area, you can still do such things as visit a local restaurant and ask management about what lights they use, count how many lights they have, etc. and apply this knowledge to a food and beverage outlet at a ski area. For more specific project details/questions, feel free to reach out
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and ask me for advice.

Criteria for success:

Step 1. is worth 50 marks. Points will be subtracted for late submissions (1 point per day) unless you have reached out to the instructor prior to the due date to ask for an extension, and it is approved. Writing should be in third person and of a professional nature. Headings and subheadings should be used. Please refer to the rubric below to see how marks will be allocated.

NRRT521 Step 1. Identifying your sustainability initiative

<table>
<thead>
<tr>
<th>Levels of Achievement</th>
<th>Exemplary</th>
<th>Proficient</th>
<th>Below Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Criteria</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choice and relevance of sustainability initiative</td>
<td>10 Points</td>
<td>5 Points</td>
<td>0 Points</td>
</tr>
<tr>
<td>The chosen sustainability initiative is relevant and suitable for the ski area. The student is able to clearly explain how the environmental initiative is relevant to the chosen resort.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to detail and explain the chosen sustainability initiative</td>
<td>10 Points</td>
<td>5 Points</td>
<td>0 Points</td>
</tr>
<tr>
<td>The student is able to explain in detail their chosen sustainability initiative.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to provide justification/rationale for chosen sustainability initiative</td>
<td>10 Points</td>
<td>5 Points</td>
<td>0 Points</td>
</tr>
<tr>
<td>Sustainability initiative is well justified and supported by relevant evidence.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Presentation and organization</td>
<td>10 Points</td>
<td>5 Points</td>
<td>0 Points</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanics of writing</td>
<td>10 Points</td>
<td>5 Points</td>
<td>0 Points</td>
</tr>
<tr>
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</tr>
<tr>
<td>Format is clear and logical. Good use of headings and subheadings. There are rare errors in format of font and content. Writing is clear and concise.</td>
<td>Overall format is relatively clear and logical. Some headings and sub-headings are used. Writing is somewhat clear and concise.</td>
<td>Format is illogical and difficult to read. Headings and sub-headings are not used appropriately. Writing is not clear nor concise.</td>
<td></td>
</tr>
<tr>
<td>Mechanics of writing</td>
<td>10 Points</td>
<td>5 Points</td>
<td>0 Points</td>
</tr>
<tr>
<td>Submissions are grammatically correct with rare misspellings. Use of language is appropriate for the recommended audience. All sources were correctly cited, both within the text and in the reference list</td>
<td>Few errors in spelling and grammar. Use of language is sometimes inappropriate for the recommended audience. Sources were cited with some errors, both within the text and in the reference list</td>
<td>Poor spelling and grammar in posts. Use of language inappropriate for the recommended audience. Sources were frequently incorrectly cited, both within the text and in the reference list</td>
<td></td>
</tr>
</tbody>
</table>
Step 2. Triple bottom line assessment: Economic assessment

Due date:
- Friday midnight (MST) Week 4.

Purpose:
The purpose of this assignment is to help you practice the skills needed to undertake the economic assessment that forms part of the triple-bottom line assessment for your chosen sustainability initiative.

Skills/knowledge:
Step 2. will help you develop and practice the following skills:
- Identification and estimation of costs associated with a proposal
- Budget preparation for a proposal
- Calculation of the return on investment for a proposal
- Critical analysis of the financial merits of a proposal

Task:
To complete Step 2. you need to do the following:

1. Identify the initial capital investment required for this project. This can be achieved by undertaking the following steps:
   - Identify what specific equipment is needed for this sustainability initiative
   - Look up the costs and specifications of the equipment and do the math to work out how much of each equipment is needed for the size of your proposal (e.g. 4 new heaters to heat 4 lift operation huts at $x a piece)
   - Information on the costs associated with your proposed initiative should be readily available on the Internet or can be obtained by contacting relevant tourism and ski area employees and managers.
• Estimate the hours and days of operation for the year of the equipment for the proposed sustainability initiative (e.g. 120 operating days, used 6 hours a day = 720hr)
  o If your energy source is electric, then you can find out rates by either asking your chosen ski area to share their electricity bill, or if you cannot get access to this, you just need to find out what electricity rate plan they are on and who their service provider is. Once you have this information, a simple Google search will provide you with the necessary information to determine an average cost per unit of usage. For an example of how the cost of electricity can be calculated, click here.
  o If your energy source is a type of fuel, you can ask the relevant ski area staff how much fuel is used, and at what cost, and you should be able to calculate total cost based on usage from there.
• Determine the installation costs (including labor and equipment, equipment hire, etc.)
2. Identify the annual operating costs and maintenance costs associated with this project
• This may require talking to the building maintenance department (if you have access) or other relevant staff or individuals.
3. Utilizing all the above information, create a proposed budget for both the first year (initial capital investment + installation and labor costs) and annual operating costs for each year thereafter (annual energy costs, labor and maintenance costs).
4. Determine cost savings that will result from this proposed sustainability initiative.
• This will require you to work out the cost of what is currently in place (e.g. the existing 4 heaters) and compare it to your proposed sustainability initiative.
• Again, this may require you to talk to the relevant individuals to find out this information (or at least the basic specifications so you can calculate the costs yourself).
• Determine whether there are any rebates or discounts available for your proposed sustainability initiative that can help to bring down the costs (whether related to the initial investment or annual operating costs).
• Consider also whether the implementation of your proposed sustainability initiative may bring in new revenue (e.g. can you sell solar energy back to the grid?)
5. Calculate your return on investment.
• One way to do this is to identify your total costs for implementation, as well as your yearly operation and maintenance cost. Then, calculate your annual cost savings and any rebates that exist. Determine how many years it will take for the ski area to pay off this proposed initiative, based on the initial costs and savings, and the yearly costs and savings, and that will determine your return on investment.
• This calculation can also be done in other ways (simple payback calculations, etc.). It is up to you how you want to calculate this – what is provided here is just an example. You need to be able to demonstrate to senior level management why this proposed
sustainability initiative is a good economic investment. If it is not, then you will need to be able to identify how much extra it will cost the ski area and justify in the following sections, why it should still be implemented (or not).

6. Critically analyze the figures and calculations presented.
• Is this a good investment from a financial perspective? Why/why not?
• What are some key things to consider and keep in mind if you were to move forward with this proposed project?

*There is a video presentation in Module 3 that will walk you step by step on how to calculate the economic impact and ROI of sustainability initiatives

Criteria for success:

Step 2. should be no longer than 4 pages double spaced, size 12 font, not including the reference list and an appendix. Writing should be in third person and of a professional nature. Headings and sub-headings should be used. It is worth 80 marks. Points will be subtracted for late submissions (1 point per day) unless you have reached out to the instructor prior to the due date to ask for an extension, and it is approved. Please refer to the rubric below to see how marks will be allocated.

NRRT521 Marking rubric for Step 2. Triple Bottom Line Assessment: Economic Assessment

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Exemplary (10 points)</th>
<th>Proficient (5 points)</th>
<th>Below Expectations (0 points)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculation of initial costs</td>
<td>All initial costs are accurately identified and calculated</td>
<td>Most of the initial costs are accurately identified and calculated</td>
<td>The initial costs are not sufficiently identified and calculated</td>
</tr>
<tr>
<td>Calculation of operating and maintenance costs</td>
<td>All operating and maintenance costs are accurately identified and calculated</td>
<td>Most of the operating and maintenance costs are accurately identified and calculated</td>
<td>The operating and maintenance costs are not sufficiently identified and calculated</td>
</tr>
<tr>
<td>Calculation of cost savings</td>
<td>Cost savings are accurately identified and calculated</td>
<td>Some cost savings are accurately identified and calculated</td>
<td>The cost savings are not sufficiently identified and calculated</td>
</tr>
<tr>
<td><strong>Calculation of return on investment</strong></td>
<td>The return on investment is accurately calculated and discussed</td>
<td>The return on investment is somewhat accurately calculated and discussed</td>
<td>The return on investment is not sufficiently calculated and discussed</td>
</tr>
<tr>
<td><strong>Development of a budget</strong></td>
<td>The budget is clear, concise, and accurate.</td>
<td>The budget is somewhat clear, concise, and accurate</td>
<td>The budget is not clear, concise, and accurate</td>
</tr>
<tr>
<td><strong>Discussion and explanation of calculations and budget</strong></td>
<td>Detailed discussion and explanation is provided for all calculations and budget development</td>
<td>Some discussion and explanation is provided for all calculations and budget development</td>
<td>No discussion and explanation is provided for all calculations and budget development</td>
</tr>
<tr>
<td><strong>Critical analysis of financial potential of the proposed project</strong></td>
<td>Detailed critical analysis of the financial merits and costs of the proposed project is provided.</td>
<td>Some critical analysis of the financial merits and costs of the proposed project is provided.</td>
<td>No critical analysis of the financial merits and costs of the proposed project is provided.</td>
</tr>
<tr>
<td><strong>Presentation and organization of proposal</strong></td>
<td>Format is clear and logical. Good use of headings and subheadings. There are rare errors in format of font and content. Use of language is appropriate for the recommended audience.</td>
<td>Overall format is relatively clear and logical. Some headings and subheadings are used. Use of language is sometimes inappropriate for the recommended audience.</td>
<td>Format is illogical and difficult to read. Headings and subheadings are not used appropriately. Use of language inappropriate for the recommended audience.</td>
</tr>
</tbody>
</table>
Step 3. Triple bottom line assessment: Socio-cultural and Environmental assessment

Due date:
- Friday midnight (MST) Week 5.

Purpose:
The purpose of this assignment is to help you practice the skills needed to undertake the socio-cultural and environmental assessment that forms part of the triple-bottom line assessment for your chosen sustainability initiative.

Skills/knowledge:
Step 3. will help you develop and practice the following skills:
- Critical analysis of socio-cultural impacts associated with chosen sustainability initiative
- Greenhouse gas emissions calculations
- Critical analysis of environmental impacts associated with sustainability initiative

Task:
To complete Step 3. you need to do the following:

Socio-cultural assessment

1. Analyze the various socio-cultural impacts that would result from your proposed sustainability initiative. Consider the various different stakeholder groups and how this impact may or may not impact them and how. Remember, what may impact one group in a certain way, may impact another group differently.
2. Identify and discuss any labor efficiencies (or inefficiencies) that will result from your chosen sustainability initiative.
3. Identify and discuss who will be involved in bringing this sustainability initiative to fruition and who will be in charge. You do not need to name particular individuals here, but identify the relevant positions and departments that will be involved and why.
Environmental assessment

The environmental assessment will require you to calculate the CO$_2$e reduction that will result from your proposed sustainability initiative. This involves the following steps:

1. First, you will need to be able to identify the emission factors that result from your proposed initiative. Refer to the [EPA CO$_2$e emissions factors](#) document (Tables 1-5). If you are trying to determine the CO$_2$e emissions for electricity, refer to the [Egrid 2014 Summary Tables](#), rather than Table 6 in the previous document, as it converts the emissions for you.

2. To do the different conversions, you will likely need to convert measurement units. If you are unsure what the conversion rates are, a simple Google search should assist you (e.g. to convert British Thermal Unit (BTU) to kilowatt per hour (kWh), simply enter ‘convert BTUs to kWh’ in Google).

   • For an example that compares three different fuel/energy sources and demonstrates how the CO$_2$e can be calculated for a project, click [here](#).

3. Now, you will be able to determine how much CO$_2$e this sustainability proposal is diverting/avoiding.

4. The next step is to calculate the amount of CO$_2$e that is currently being generated by what is in place at the ski area to determine the difference in CO$_2$e emissions.

5. You should then be able to analyze and discuss the CO$_2$e savings that this proposed sustainability initiative can achieve.

6. Make sure to also identify and discuss any other environmental impacts that your proposed sustainability initiative may have.

*There is a video presentation in Module 4 that will explain and walk you step by step on how to do the necessary conversions to calculate GHG emissions.

**NOTE:** There are many calculators on the Internet that will automatically convert energy/fuel usage into a CO$_2$e value. While useful, they are not always accurate as many assumptions are included in these calculations. Furthermore, after extensive conversations with Sustainability Coordinators, it is important that you understand what each of the calculations mean and why they are undertaken so you get a more detailed understanding overall as to how GHG emissions are produced, converted, and calculated. As such, this project will require you to demonstrate your calculation/conversion processes.

Criteria for success:
NRRT521 Sustainable Ski Area Management

Step 3. should be no longer than 6 pages double spaced, size 12 font, not including the reference list and an appendices. Writing should be in the third person and professional in nature. Headings and sub-headings should be used. It is worth 80 marks. Points will be subtracted for late submissions (1 point per day) unless you have reached out to the instructor prior to the due date to ask for an extension, and it is approved. Please refer to the rubric below to see how marks will be allocated.

NRRT521 Marking rubric for Step 3. Triple Bottom Line Assessment: Socio-cultural and Environmental Assessment

<table>
<thead>
<tr>
<th>Levels of Achievement</th>
<th>Exemplary (10 points)</th>
<th>Proficient (5 points)</th>
<th>Below Expectations (0 points)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Socio-cultural assessment: Discussion and analysis of impacts</strong></td>
<td>All positive and negative socio-cultural impacts of the sustainability initiative are analysed and discussed in detail. Thought is given to how these impacts affect different stakeholder groups.</td>
<td>Some of the positive and negative socio-cultural impacts of the sustainability initiative are analysed and discussed in detail. Some thought is given to how these impacts affect different stakeholder groups.</td>
<td>None of the positive and negative socio-cultural impacts of the sustainability initiative are analysed and discussed in detail. No thought is given to how these impacts affect different stakeholder groups.</td>
</tr>
<tr>
<td><strong>Socio-cultural assessment: Labor efficiencies and organizational structure</strong></td>
<td>All labor efficiencies and organizational structure associated with the sustainability initiative are analysed and discussed in detail</td>
<td>Some of the labor efficiencies and organizational structure associated with the sustainability initiative are analysed and discussed in detail</td>
<td>None of the labor efficiencies and organizational structure associated with the sustainability initiative are analysed and discussed in detail</td>
</tr>
<tr>
<td><strong>Environmental assessment: Ability to identify relevant inputs for calculating CO₂e emissions or other waste reduction</strong></td>
<td>The relevant and necessary inputs for calculating CO₂e emissions or other waste reduction were used</td>
<td>Most of the relevant and necessary inputs for calculating CO₂e emissions or other waste reduction were used</td>
<td>The relevant and necessary inputs for calculating CO₂e emissions or other waste reduction were not used</td>
</tr>
</tbody>
</table>
### Environmental assessment: Ability to accurately calculate CO₂e emissions or other waste reduction

| CO₂e emissions or other waste reduction were accurately calculated for the proposed sustainability initiative | CO₂e emissions or other waste reduction were mostly accurately calculated for the proposed sustainability initiative | CO₂e emissions or other waste reduction were not accurately calculated for the proposed sustainability initiative |

### Environmental assessment: Ability to interpret and critically analyze results

| The student is able to succinctly explain and interpret the calculated CO₂e emissions or other waste reduction results. A critical analysis of the environmental merits of the proposed sustainability initiative is provided. | The student is somewhat able to succinctly explain and interpret the calculated CO₂e emissions or other waste reduction results. A somewhat critical analysis of the environmental merits of the proposed sustainability initiative is provided. | The student is not able to succinctly explain and interpret the calculated CO₂e emissions or other waste reduction results. No critical analysis of the environmental merits of the proposed sustainability initiative is provided. |

### Environmental assessment: Discussion and analysis of other impacts

| All other positive and negative environmental impacts of the sustainability initiative are analysed and discussed in detail. Thought is given to how these impacts affect different stakeholder groups. | Some of the other positive and negative environmental impacts of the sustainability initiative are analysed and discussed in detail. Thought is given to how these impacts affect different stakeholder groups. | None of the other positive and negative environmental impacts of the sustainability initiative are analysed and discussed in detail. Thought is given to how these impacts affect different stakeholder groups. |

### Presentation and organization proposal

| Format is clear and logical. Good use of headings and subheadings. There are rare errors in format of font and content. | Overall format is relatively clear and logical. Some headings and subheadings are used. | Format is illogical and difficult to read. Headings and subheadings are not used appropriately. |

### Mechanics of writing

<p>| Submissions are grammatically correct with rare misspellings. Use of language is sometimes | Few errors in spelling and grammar. Use of language is sometimes | Poor spelling and grammar in posts. Use of language inappropriate for the |</p>
<table>
<thead>
<tr>
<th>Language is appropriate for the recommended audience. All sources were correctly cited, both within the text and in the reference list.</th>
</tr>
</thead>
<tbody>
<tr>
<td>inappropriate for the recommended audience. Sources were cited with some errors, both within the text and in the reference list.</td>
</tr>
<tr>
<td>recommended audience. Sources were frequently incorrectly cited, both within the text and in the reference list.</td>
</tr>
</tbody>
</table>
Step 4. Communication plan for the sustainability initiative

Due date:

- Friday midnight (MST) Week 6.

Purpose:

The purpose of this assignment is to help you practice the skills needed to develop a communication plan. The communication of sustainability efforts, both internally and externally, is a very important component for any business. This is especially the case for ski areas as they are faced with questions of commitment to sustainability, climate change, and greenwashing. In addition, the successful communication of a sustainability initiative has a large impact on whether it will be validated and embraced by senior management and all employees, let alone external stakeholders, and whether goals will be met, and the initiative will successfully be brought to fruition.

Skills/knowledge:

Step 4. will help you develop and practice the following skills:

- Identify and assess various stakeholder groups (internal and external) and their relevance to your chosen ski area
- Written communication of a sustainability ethic and commitment of a ski area
- Critical analysis of various methods of internal and external communication
- Crafting specific sustainability messages to best resonate with certain stakeholder groups

Task:

To complete Step 4. you need to do the following:

1. State the sustainability commitment of your chosen ski area
   - Before any communication can be completed on an external basis (to guest and the general public), a ski area has to determine its internal voice and stance. This can take the form of a sustainability commitment statement (policy), philosophy/mission statement, brand, and/or vision.
• Some of your chosen ski areas may already have this and you need to include this here. For those that do not have one, take some time to create one that truthfully reflects what the ski area is about, and clearly communicates the level of commitment of the ski area to the environment, community, and its employees and shareholders (if relevant).
• A good place to start is with the NSAA. Check to see if your chosen ski area has signed the Environmental Charter or joined the NSAA Climate Challenge. This is the best source of relevant language to communicate a sustainability commitment.

2. Identify and communicate what campaigns/activities the ski area should undertake to successfully communicate it’s efforts in implementing this sustainability initiative
• It is important here that you do not simply list a range of communication campaigns/activities but actually explain the following:
  o Why is each campaign/activity important?
  o Who is the targeted audience for each campaign/activity, and why?
    • Consider both internal and external stakeholders here
  o What is the message that you are trying to get across?
  o When should the campaign/activity be implemented?
  o How will it be implemented?

*Be careful not treat social media as a single, homogenous platform. If you plan on incorporating social media activity, be specific in explaining what platform you will use, and what you plan on doing on that platform and why. You do not actually need to create the communication pieces, but you should be able to explain the overall vision for the piece.

**It is also important that you think about how the implementation of this sustainability initiative can be incorporated into existing communication pieces/activities (e.g. annual reports, employee newsletters, sustainability reports, as part of your NSAA Climate Challenge goals and efforts, department orientations, shared amongst your Green Team, included in future master development plans, etc.) This needs to be discussed and included in addition to the above creation of specific communication activities for this sustainability initiative.

Criteria for success:

Step 4. should be no longer than 4 pages double-spaced, size 12 font, not including the reference list. It is worth 70 marks. Writing should be in the third person and professional in nature. Headings and sub-headings should be used. Points will be subtracted for late submissions (1 point per day) unless you have reached out to the instructor prior to the due date to ask for an extension, and it is approved. Please refer to the rubric below to see how marks will be allocated.
### NRRT521 Marking rubric for Step 4. Sustainability Proposal - Communication Plan

#### Levels of Achievement

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Exemplary (10 points)</th>
<th>Proficient (5 points)</th>
<th>Below Expectations (0 points)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ability to articulate the sustainability commitment of the ski area</strong></td>
<td>Student has clearly articulated and communicated the sustainability commitment of the ski area</td>
<td>Student has somewhat communicated the sustainability commitment of the ski area</td>
<td>Student has not communicated the sustainability commitment of the ski area</td>
</tr>
<tr>
<td><strong>Ability to select appropriate communication campaigns/activities for chosen sustainability initiative</strong></td>
<td>Appropriate communication campaigns/activities for the chosen sustainability initiative are selected.</td>
<td>Appropriate communication campaigns/activities for the chosen sustainability initiative are somewhat selected.</td>
<td>Appropriate communication campaigns/activities for the chosen sustainability initiative are not selected.</td>
</tr>
<tr>
<td><strong>Explanation of chosen communication campaigns/activities</strong></td>
<td>Detailed explanation of chosen communication campaigns/activities is provided.</td>
<td>Detailed explanation of chosen communication campaigns/activities is somewhat provided.</td>
<td>Detailed explanation of chosen communication campaigns/activities is not provided.</td>
</tr>
<tr>
<td><strong>Justification of chosen communication campaigns/activities</strong></td>
<td>Justification of chosen communication campaigns/activities is provided relating to the target audience, messaging, and implementation, and relevance.</td>
<td>Justification of chosen communication campaigns/activities is somewhat provided relating to the target audience, messaging, and implementation, and relevance.</td>
<td>Justification of chosen communication campaigns/activities is not provided relating to the target audience, messaging, and implementation, and relevance.</td>
</tr>
<tr>
<td><strong>Integration of chosen communication campaigns/activities</strong></td>
<td>Chosen communication campaigns/activities integrate well with one another and existing communication</td>
<td>Chosen communication campaigns/activities somewhat integrate with one another and existing communication</td>
<td>Chosen communication campaigns/activities do not integrate with one another and existing communication</td>
</tr>
<tr>
<td><strong>NRRT521 Sustainable Ski Area Management</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------</td>
<td>-----------------</td>
<td></td>
</tr>
<tr>
<td><strong>Presentation and organization of communication plan</strong></td>
<td>Format is clear and logical. Good use of headings and sub-headings. There are rare errors in format of font and content.</td>
<td>Overall format is relatively clear and logical. Headings and sub-headings are used but do not always reflect content. There are some errors in formatting of font and content.</td>
<td>Format is illogical and difficult to read. Limited effectiveness of headings and sub-headings. There are many errors in formatting of font and content.</td>
</tr>
<tr>
<td><strong>Mechanics of writing</strong></td>
<td>Submissions are grammatically correct with rare misspellings. Use of language is appropriate for the recommended audience. All sources were correctly cited, both within the text and in the reference list</td>
<td>Few errors in spelling and grammar. Use of language is sometimes inappropriate for the recommended audience. Sources were cited with some errors, both within the text and in the reference list</td>
<td>Poor spelling and grammar in posts. Use of language inappropriate for the recommended audience. Sources were frequently incorrectly cited, both within the text and in the reference list</td>
</tr>
</tbody>
</table>
Step 5. Timeline for implementation of the sustainability initiative

Due date:

- Friday midnight (MST) Week 7.

Purpose:

The purpose of the timeline is to give you the opportunity to identify all relevant tasks that will need to be completed for successful implementation of the sustainability initiative, and then organize them in a relevant timeline sequence for implementation.

Skills/knowledge:

Step 5. will help you develop and practice the following skills:

- Identification of all relevant tasks to be completed to bring this sustainability initiative to fruition
- Determination of who (or what department) should be responsible for each of the various tasks
- Sequencing tasks in a logical and realistic manner
- Developing a Gantt chart to clearly communicate your timeline

Task:

To complete Step 5. you need to do the following:

1. Identify every task that is required from start to finish to bring this sustainability initiative to fruition. This includes the initial research, presentation to senior management, approval, planning, implementation, and any ongoing monitoring and evaluation if relevant.
   - This will include tasks that span over a duration of time (e.g. construction, installation, stakeholder engagement, etc.) as well as tasks that are ‘point in time’ (e.g. purchasing of materials, delivery, etc.).
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- It may be wise to build in some ‘buffer’ time where relevant to your project in case there are delays or hiccups along the way. This is especially the case if you are proposing a rather complex sustainability initiative.
- Don’t forget to include the tasks associated with your communication plan!

2. Assign each task to a relevant person/department so that there is accountability for getting the task done
3. Organize each task in a relevant timeline and assign start and end dates for each task
4. Present this timeline as a Gantt chart.

- For those of you who are unfamiliar with what a Gantt chart is, click on the link below to go to TeamGantt’s webpage which will provide you with a detailed breakdown of the information to be included in a Gantt chart, and a video as well. [https://www.teamgantt.com/blog/gantt-chart-example](https://www.teamgantt.com/blog/gantt-chart-example)
- How you format your Gantt chart is up to you, but it is recommended that you do some color coding of tasks and accompany this with a key so that it is clear which tasks belong to which individual/department.
- The Gantt chart can be provided using various free software that exists on the internet, or you can create your own Gantt chart in Microsoft Excel. Search the internet to see if there are any particular styles you prefer and go from there!

5. A one-page, double-spaced size 12 font explanation of your timeline should also be provided that highlights key milestones or ‘tension’ areas that senior manager’s attention should be drawn to.

Criteria for success:

Step 5. consists of a one-page, double-space, size 12 written explanation and your timeline. It is worth 70 marks in total. Points will be subtracted for late submissions (1 point per day) unless you have reached out to the instructor prior to the due date to ask for an extension, and it is approved. Please refer to the rubric below to see how marks will be allocated.

NRRT521 Marking rubric for Step 5. Timeline for the Sustainability Proposal

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Exemplary (10 points)</th>
<th>Proficient (5 points)</th>
<th>Below Expectations (0 points)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to identify all relevant and necessary tasks</td>
<td>Student has identified all relevant and necessary tasks</td>
<td>Student has identified most of the relevant and necessary tasks</td>
<td>Student has not identified relevant and necessary tasks</td>
</tr>
</tbody>
</table>
for inclusion in the timeline. These include both ‘point in time’ tasks and those that span a duration of time.

necessary tasks for inclusion in the timeline. These include both ‘point in time’ tasks and those that span a duration of time.

<table>
<thead>
<tr>
<th>Ability to represent all stages of the development process</th>
<th>Timeline includes all stages of the development process</th>
<th>Timeline includes most stages of the development process</th>
<th>Timeline does not include each of the different stages of the development process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to assign tasks to relevant people/departments</td>
<td>All tasks identified are assigned to relevant people/departments</td>
<td>Some tasks identified are assigned to relevant people/departments</td>
<td>No tasks identified are assigned to relevant people/departments</td>
</tr>
<tr>
<td>Clarity and accuracy of timeline</td>
<td>The timeline is a clear and accurate portrayal of the development process.</td>
<td>The timeline is somewhat a clear and accurate portrayal of the development process.</td>
<td>The timeline is not clear and does not accurately portray the development process.</td>
</tr>
<tr>
<td>Explanation of the timeline</td>
<td>The accompanying explanation of the timeline is clear, concise, and highlights key milestones and points of ‘tension’.</td>
<td>The accompanying explanation of the timeline is somewhat clear, concise, and somewhat highlights key milestones and points of ‘tension’.</td>
<td>The accompanying explanation of the timeline is not clear, concise, and does not highlight key milestones and points of ‘tension’.</td>
</tr>
<tr>
<td>Presentation and organization of timeline</td>
<td>The presentation, format, organization, font, and use of color and symbols is appropriate for the timeline</td>
<td>The presentation, format, organization, font, and use of color and symbols is somewhat appropriate for the timeline</td>
<td>The presentation, format, organization, font, and use of color and symbols is not appropriate for the timeline</td>
</tr>
<tr>
<td>Mechanics of writing</td>
<td>Submissions are grammatically correct with rare misspellings. Use of language is appropriate for the recommended audience.</td>
<td>Few errors in spelling and grammar. Use of language is sometimes inappropriate for the recommended audience.</td>
<td>Poor spelling and grammar in posts. Use of language inappropriate for the recommended audience.</td>
</tr>
</tbody>
</table>
recommended audience.
Step 6. Presentation of the complete sustainability initiative proposal

Due date:

- Friday midnight (MST) Week 8.

Purpose:

The purpose of Step 6 is to give you practice in developing your editing skills by bringing all of the previous elements of this proposal together into a clear, concise, and complete sustainability proposal.

Skills/knowledge:

Step 6. will help you develop and practice the following skills:

- Organize and assemble different elements into a complete proposal
- Present a consistent product in terms of writing style, tone, grammar, referencing, and also font size, type, margins, and layout
- Write an executive summary
- Proof read and edit a piece of written communication

Task:

To complete Step 6. You need to do the following:

1. Bring together Steps 1 to 5 into one complete proposal. It should include the following:
   - Title page
   - Executive summary
   - Table of contents
   - Step 1. (You should update your justification here and provide specific numbers and arguments, based on the findings from your triple bottom line assessment)
   - Step 2.
   - Step 3.
   - Step 4.
NRRT521 Sustainable Ski Area Management

- Step 5.
- Conclusion and Recommendations
- References
- Appendices (if relevant)

2. Write the executive summary.
- The executive summary is an extremely important part of this sustainability initiative proposal. It is often the first (and may be the last) thing that senior managers read.
- It needs to summarize all of the key points, findings, and recommendations made by this proposal. It should provide a very brief summary of relevant points from each section. It does not explain or justify, but summarizes. E.g. The proposed lighting retrofit will cost $x and have a return on investment of $x.
- It is NOT an introduction. While an introduction introduces what is to come (e.g. This report will introduce the proposed lighting retrofit and identify associated costs, benefits, and challenges from an economic, socio-cultural, and environmental perspective), the executive summary summarizes all key findings and points (e.g. The proposed lighting retrofit will save x CO2e emissions annually and will have the added environmental benefit of xxxxx. It will cost the resort $x in the first year, and $x every subsequent year in maintenance and operations).

3. Write a conclusion and recommendations based on your proposal
- Your conclusion should summarize the proposal.
- The recommendations should clearly state what management should do moving forward regarding this proposal. It may also be worth highlighting any limitations, if any, in this section.

4. Prepare your references and appendices
- References should be used throughout this proposal to justify the information provided. This reference list should incorporate all references used throughout the entire proposal.
- If you have additional figures, tables, and diagrams that are not central to the discussion, but provide useful information for management, these can be included in the appendices. This need to be clearly labelled and referred to in the body of the text (e.g. see Appendix A).

5. Go through your complete proposal and use appropriate headings and subheadings to help bring this proposal together as a complete document. For example, take out ‘step 1, 2, 3, etc.’ and replace with more relevant headings for each of these sections.

6. Go through the complete proposal and ensure that page numbers, font size, style, paragraphs, etc. are all consistent. Also proof-read and edit your work.

7. Include a table of contents
NRRT521 Sustainable Ski Area Management

- The table of contents should include all headings and sub-headings and the relevant page numbers. This allows managers to be able to find certain sections quickly, without having to sift through the entire proposal.

Criteria for success:

Step 6. is worth 50 marks in total. Points will be subtracted for late submissions (1 point per day) unless you have reached out to the instructor prior to the due date to ask for an extension, and it is approved. Please refer to the rubric below to see how marks will be allocated.

NRRT521 Marking rubric for Step 6. Presentation of the complete sustainability initiative proposal

<table>
<thead>
<tr>
<th>Levels of Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criteria</td>
</tr>
<tr>
<td>Consistency of the sustainability initiative proposal</td>
</tr>
<tr>
<td>Completeness of the sustainability initiative proposal</td>
</tr>
<tr>
<td>Executive summary</td>
</tr>
<tr>
<td>Presentation and organization of proposal</td>
</tr>
</tbody>
</table>
### Mechanics of writing

<table>
<thead>
<tr>
<th>Heading</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submission</td>
<td>Few errors in spelling and grammar. Use of language is inappropriate for the recommended audience. Sources were frequently incorrectly cited, both within the text and in the reference list.</td>
</tr>
<tr>
<td>few errors in format of font and content.</td>
<td>Poor spelling and grammar in posts. Use of language inappropriate for the recommended audience. Sources were frequently incorrectly cited, both within the text and in the reference list.</td>
</tr>
<tr>
<td>headings and subheadings are used.</td>
<td></td>
</tr>
<tr>
<td>headings are not used appropriately.</td>
<td></td>
</tr>
</tbody>
</table>

### Academic Integrity Policy

This course will adhere to the CSU Academic Integrity Policy as found in the General Catalog, the [Graduate and Professional Bulletin](#), and the [Student Conduct Code](#). Academic integrity is conceptualized as doing and taking credit for one’s own work. Violations of the university’s academic integrity standards include, but are not limited to:

- **Cheating**—includes using unauthorized sources of information and providing or receiving unauthorized assistance on any form of academic work or engaging in any behavior specifically prohibited by the faculty member.

- **Plagiarism**—includes the copying of language, structure, ideas, or thoughts of another, and representing them as one’s own without proper acknowledgment.

- **Unauthorized Possession or Disposition of Academic Materials**—includes the unauthorized selling or purchasing of examinations or other academic work; stealing another student’s work; unauthorized entry to or use of material in a computer file; and using information from or possessing exams that an instructor did not authorize for release to students.

- **Falsification**—includes any untruth, either verbal or written, in one’s academic work.

- **Facilitation**—includes knowingly assisting another to commit an act of academic misconduct.
NRRT521 Sustainable Ski Area Management

At a minimum, violations will result in a grading penalty in this course and a report to the Office of Conflict Resolution and Student Conduct Services.

COPYRIGHT

Please do not share material from this course in online, print, or other media. Course material is the property of the instructor who developed the course. Materials authored by third parties and used in the course are also subject to copyright protections. Posting course materials on external sites or sharing materials with those not registered in the class may violate both copyright law and the CSU Student Conduct Code. Students who share course content without the instructor’s express permission could face appropriate disciplinary or legal action.

UNIVERSAL DESIGN FOR LEARNING

I am committed to the principle of universal learning. This means that our classroom, our virtual spaces, our practices, and our interactions be as inclusive as possible. Mutual respect, civility, and the ability to listen and observe others carefully are crucial to universal learning. Please consider the following:

- Freedom of speech doesn’t mean freedom from consequences of that speech. You are responsible for the impact of how you decide to express yourself.
- Hateful speech can cause real harm to others, to relationships, to your reputation, and to your future career plans – even if it’s protected by the First Amendment.
- CSU’s Principles of Community challenge us to treat each other with respect and integrity, even when we disagree.
- CSU welcomes spirited dialogue and the opportunity to exchange challenging ideas without personal attack.

CSU PRINCIPLES OF COMMUNITY:

**Inclusion:** We create and nurture inclusive environments and welcome, value and affirm all members of our community, including their various identities, skills, ideas, talents and contributions.

**Integrity:** We are accountable for our actions and will act ethically and honestly in all our interactions.

**Respect:** We honor the inherent dignity of all people within an environment where we are committed to freedom of expression, critical discourse, and the advancement of knowledge.

**Service:** We are responsible, individually and collectively, to give of our time, talents, and resources to promote the well-being of each other and the development of our local, regional, and global communities.
Social Justice: We have the right to be treated and the responsibility to treat others with fairness and equity, the duty to challenge prejudice, and to uphold the laws, policies and procedures that promote justice in all respects.

ACCOMMODATION OF NEEDS

If you are a student who will need accommodations in this class, please contact me to discuss your individual needs. Any accommodation must be discussed in a timely manner prior to implementation. A verifying memo from Student Disability Center may be required before any accommodation is provided.

The Student Disability Center (formerly Resources for Disabled Students) http://rds.colostate.edu/ (SDC) has the authority to verify and confirm the eligibility of students with disabilities for the majority of accommodations. While some accommodations may be provided by other departments, a student is not automatically eligible for those accommodations unless their disability can be verified and the need for the accommodation confirmed, either through SDC or through acceptable means defined by the particular department. Faculty and staff may consult with the Student Disability Center staff whenever there is doubt as to the appropriateness of an accommodative request by a student with a disability.

The goal of SDC is to normalize disability as part of the culture of diversity at Colorado State University. The characteristic of having a disability simply provides the basis of the support that is available to students. The goal is to ensure students with disabilities have the opportunity to be as successful as they have the capability to be.

Support and services are offered to student with functional limitations due to visual, hearing, learning, or mobility disabilities as well as to students who have specific physical or mental health conditions due to epilepsy, diabetes, asthma, AIDS, psychiatric diagnoses, etc. Students who are temporarily disabled are also eligible for support and assistance.

Any student who is enrolled at CSU, and who self-identifies with SDC as having a disability, is eligible for support from SDC. Specific accommodations are determined individually for each student and must be supported by appropriate documentation and/or evaluation of needs consistent with a particular type of disability. SDC reserves the right to ask for any appropriate documentation of disability in order to determine a student's eligibility for accommodations as well as in support for specific accommodative requests. The accommodative process begins once a student meets with an accommodations specialist in the Student Disability Center.

RELIGIOUS OBSERVANCES:

CSU does not discriminate on the basis of religion. Reasonable accommodation should be made to allow individuals to observe their established religious holidays. Students seeking an exemption from attending class or completing assigned course work for a religious holiday will need to fill out the Religious Accommodation Request form and turn it in to the Division of Student Affairs, located on the second level of the Administration building.

Students can obtain a form online: http://www.studentaffairs.colostate.edu/religious-holidays or from the Division of Student Affairs.
Once turned in, the Division of Student Affairs will review the request and contact the student accordingly. If approved, the student will receive a memo from the Dean of Students to give to their professor or course instructor.

Students are asked to turn in the request forms as soon as the conflict is noticed. Similarly, unanticipated conflicts requiring a religious observance, such as a death in the family, can also be reviewed.

**Undocumented Student Support:**

Any CSU student who faces challenges or hardships due to their legal status in the United States and believes that it may impact their academic performance in this course is encouraged to visit https://undocumented.colostate.edu for resources and support.

**Student Financial and Food Resources**

Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and believes this may affect their performance in the course, is urged to contact your academic advisor or the Dean of Students for support. Furthermore, please notify the professor if you are comfortable in doing so.

CSU is committed to supporting students who are experiencing undue hardship and providing emergency funds when possible and food relief for our CSU community. If you find yourself in need of emergency funds, please reach out to the Office of Financial Aid, and if you are seeking food relief, please go to the Rams Against Hunger webpage to see which sources of support you are eligible to access: https://lsc.colostate.edu/slice/slice-engagement/rams-against-hunger/

**Title IX/Interpersonal Violence**

For the full statement regarding role and responsibilities about reporting Harassment, Sexual Harassment, Sexual Misconduct, Domestic Violence, Dating Violence, Stalking, and the retaliation policy please go to: http://oeo.colostate.edu/title-ix-sexual-assault. If you feel that your rights have been compromised at CSU, several resources are available to assist:

- **Student Resolution Center**, 200 Lory Student Center, 491-7165
- **Office of Equal Opportunity**, 101 Student Services, 491-5836

A note about Interpersonal Violence: If you or someone you know has experienced sexual assault, relationship violence and/or stalking, know that you are not alone. As an instructors we are required by law to notify university officials about disclosures related to interpersonal violence. Confidential victim advocates are available 24 hours a day, 365 days a year to provide support related to the emotional, physical, physiological and legal aftermath of interpersonal violence. Contact the Victim Assistance Team at: 970-492-4242.
SYSTEM, MULTIMEDIA, AND SOFTWARE REQUIREMENTS

Having trouble with the multimedia in this course? See the solutions below. Also, it is highly recommended that you access your course via a high-speed Internet connection.

- Problems with opening PDFs?
  - Download Adobe Reader.

- Canvas acting funny?
  - Download the correct version of Java for Canvas.

- YouTube videos not playing?
  - Download Flash Player.

- Videos not opening or playing on your Mac?
  - Download Windows Media Components for QuickTime.

- Can’t open content created with Microsoft Office Products? Download the following viewers:
  - Word Viewer
  - PowerPoint Viewer
  - Excel Viewer
  - Microsoft Office Compatibility Pack for Word, Excel, and PowerPoint File Formats

- Still having issues:
  - Call the CSU Help Desk at 970-491-7276 or Email Help Desk Support

You must have speakers installed and working properly on your computer before beginning the course.

You may need access to Microsoft Word, PowerPoint, and/or Excel to complete assignments. If you do not have access to the Microsoft Office applications, you may use one of the following free resources that allow you to save your files with Microsoft Office file extensions (.doc, .docs, .ppt, .xls):

- Google Apps for CSU—a free, outsourced communications suite endorsed by The University Technology Fee Advisory Board (UTFAB)
- Open Office—an open source productivity suite

LIBRARY AND RESEARCH ASSISTANCE

The CSU Libraries Help Desk provides research and technical assistance either in person at Morgan Library or by phone at 970-491-1841. Monica Latham is the librarian supporting this course. Contact her by phone at (970) 491-2622 or via email at Monica.Latham@colostate.edu to ask questions or set up an appointment for in-depth research help.
SUGGESTED STUDY METHODS

Online education requires skills and habits that may be less essential in traditional courses. In order to be successful in your online course you will need:

- **Space**—Establish a comfortable and well-organized physical workplace.
- **Time management skills**—Set personal study and "classroom" time as you would do for a traditional course.
- **Organization skills**—Print out all class material (modules, PowerPoints, assignments, additional resources, and any work you generate) and keep everything in a single location. Maintain electronic backups of all class materials.
- **Communication skills**—Demonstrate a willingness to interact with your instructor and classmates through email, phone calls, discussion boards, and active participation in all class activities.
- **Initiative**—Seek help from your instructor and classmates, ask questions as they arise.
- **Discipline**—Pace yourself, complete all activities and assignments before the due date, follow through on all class requirements to completion.

The more closely you adhere to the recommendations above the greater your chances of having a successful semester and a rewarding online experience.

**Note:** The instructor reserves the right to make changes to this syllabus throughout the semester.