

Final Project

Value: 15%, Due: April 14th @ 11:59 PM

IMPORTANT NOTE: ABSOLUTELY NO LATE PROJECT SUBMISSION IS ACCEPTED.

This final project should be completed **individually or in groups of two**. We take academic integrity seriously. Any student found to be involved in plagiarism or cheating will be penalized in accordance with the Ontario Tech University Calendar, Section 5.15.

To assert that you have not given or received, or used unauthorized assistance, write the following pledge in the comment textbox when you submit your files through Canvas system.

"I/We have not given, received, or used any unauthorized assistance."

Introduction (United Nation's Sustainable Development Agenda)

In 2015, the United Nations General Assembly adopted 17 Sustainable Development Goals (SDGs) designed to be a blueprint to achieve a better and more sustainable future for all nations over the next fifteen years. These goals and targets are meant for all nations to mobilize efforts to end all forms of poverty, fight inequalities and tackle climate change, while ensuring that no one is left behind.



The 2030 Agenda for Sustainable Development

Below is the overview of the 17 Sustainable Development Goals (SDGs).

1.  **No Poverty:** End poverty in all its forms, everywhere.
2.  **Zero Hunger:** End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.
3.  **Good Health and Wellbeing:** Ensure healthy lives and promote well-being for all, at all ages.
4.  **Quality Education:** Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
5.  **Gender Equality:** Achieve gender equality and empower all women and girls.
6.  **Clean Water and Sanitation:** Ensure availability and sustainable management of water and sanitation for all.
7.  **Affordable and Clean Energy:** Ensure access to affordable, reliable, sustainable, and modern energy for all.
8.  **Decent Work and Economic Growth:** Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all.
9.  **Industry, Innovation and Infrastructure:** Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.
10.  **Reduced Inequalities:** Reduce inequality within and among countries.
11.  **Sustainable Cities and Communities:** Make cities and human settlements inclusive, safe, resilient, and sustainable.
12.  **Responsible Consumption and Production:** Ensure sustainable consumption and production patterns.
13.  **Climate Action:** Take urgent action to combat climate change and its impacts.
14.  **Life Below Water:** Conserve and sustainably use the oceans, seas, and marine resources for sustainable development.
15.  **Life on Land:** Protect, restore, and promote sustainable use of terrestrial ecosystems, manage forests, combat desertification and biodiversity loss, and halt and reverse land degradation.
16.  **Peace, Justice and Strong Institutions:** Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions.
17.  **Partnerships:** Strengthen the means of implementation and revitalize the global partnership for sustainable development.

While the SDGs are not legally binding, governments are expected to take ownership and establish national frameworks for the achievement of the 17 Goals. Since Canada is one of the 193 UN Member States, Canadians across the country and around the globe are already using the SDGs to frame, monitor and report on their social, economic, and environmental impacts while exploring ways to contribute further to the SDGs.

Project Description

You will use the data hub hosted by Statistics Canada on Sustainable Development Goals (<https://www144.statcan.gc.ca/sdg-odd/index-eng.htm>) to tell a story related to one of the 17 Canada's SDGs through **infographic** and a **one-page summary** document. The data hub contains information on

Canada's progress against the SDG global indicators. Please also note that you are welcome to use any publicly available Canadian statistical data sets that fits at least one of the 17 SDGs.

1) Team Formation

In this project, you are permitted to work **independently** or in **groups of two**. If you work in groups of two, then your submission must include a worksheet detailing each member's contribution of the project.

2) Project Allocation

Project topics (17 SDGs) are assigned to each group/student (if you are working independently) based on the **last three digits of your student number** (if you are working in groups of two, then you can use any of your group member's student number) and Excel's MOD function. For example, if your student number is 100222**343**, then you can determine your project's topic by applying the MOD function using Excel as follows:

$$=MOD(343,17)+1 = 4$$

Since the result is 4, your project topic is the 4th SGD -  Quality Education.

3) Deliverables

- (a) **Excel Workbook:** Teams will use Statistic Canada data hub and/or publicly available data sets on their topic to communicate Canada's level of progression in the 2030 Agenda for Sustainable Development through infographics (for your reference, three sample infographics are provided in the final project folder). The infographic must be done using Excel and it must contain the following items.
 - i) **Documentation worksheet:** this worksheet should contain a title, names and student numbers of the group, and a sentence describing the purpose of your project.
 - ii) **Contribution worksheet:** if you are working in groups of two, you should include a Contribution worksheet to list each member's contribution to the project.
 - iii) **Infographic worksheet:** this worksheet should contain an infographic to communicate your topic through graphic elements, such as graphs, diagrams, or illustrations (see sample infographics provided in the final project folder). Your infographic must contain at least **five charts created using Excel** and it should condense the information into key messages and lessons, making it easier for readers to scan interesting facts/info regarding your topic.
 - iv) **Dataset Worksheet/s:** all data sets used in your project must be included in one or more worksheets and their sources must be cited.
- (b) **Summary Document:** Each team must prepare a **one-page summary document** providing a clear and compelling take-home message from their visualization. All external information used in the document must be cited in order to give the original authors/creators proper credit for their work.

4) Project Criteria

The following criteria is used to evaluate your project:

- The team has prepared a one-page document providing a clear and compelling take-home message from their visualization. All external information used in the document are cited in order to give the original authors/creators proper credit for their work.

- The team has included all project related data sets in the Excel file and cited their sources.
- The infographic is pleasing to view and it has 5 to 10 charts created using Excel.
- The team has used multiple data sets to effectively compare and contrast data on a specific topic.
- The infographic clearly communicates the central issue or topic. The information is condensed into key messages and lessons, making it easier for readers to scan interesting facts/info regarding the topic.
- The team has included a Contribution worksheet to indicate each member's contribution towards the project. Please note that this requirement is only for students working in groups of two.