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## CCMN 432 (Sec 310): Major Project Assignment Planning Guide

Week #5 Participation Activity

Deadline: Wednesday, October 19 at 11:59 PM

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### Step #1: Group Member Contact Information (Aim to complete before Class #6)

Complete the information below for each group member.

Name: Ishan Lodwal Email: ilodwal@ryerson.ca Phone Number: 8851997174	Name: Nicholas Messere Email: nicholas.messere@ryerson.ca Phone Number: 647-994-1743
Name: Hamza Malik Email: hamza.ejaz.malik@ryerson.ca Phone Number:(647)963-2983	Name: Ahmed Negm Email: anegm@ryerson.ca Phone Number:647 825 0542
Name: Luke McCutcheon Email: lmccutcheon@ryerson.ca Phone Number: 705-994-4086	Name: Imani Nyambaka Email: inyambaka@ryerson.ca Phone Number: 647 545 3457

How would your group like to communicate (such as Whatsapp, Facebook chat, or Discord)?

Whatsapp <https://chat.whatsapp.com/CK2G7LdSJZi1by9Uaomgno>

How often would you like group members to respond?

Within a few hours

### STEP #2: Selecting an Concern/Issue (Aim to complete before Class #6)

Have each group member select a type of public concern/issue that interests them. Make the topics specific (for example, “education” is general, whereas “post-secondary fees in Ontario” is specific). Note that the concern/issue can be engineering or non-engineering related.

Ishan Suggestion:	A need for a new arm's law in response to public shootings/violence
Hamza Suggestion:	The Great Pacific Garbage patch and implementation of ways to clean out the garbage.
Luke Suggestion:	Mounting personal debt levels while inflation is running rampant making it difficult for households to keep up financially

Nicholas Suggestion:	Global computer chip shortages that affect the production of motor vehicles and computer systems.
Ahmed Suggestion:	Car thefts in Toronto
Imani Suggestion:	Lack of adequate housing for homeless people in Toronto. Not enough shelters

Narrow the six suggestions above to three.

Possible Topic #1:	The Great Pacific Garbage patch and implementation of ways to clean out the garbage.
Possible Topic #2:	Lack of adequate housing for homeless people in Toronto. Not enough shelters
Possible Topic #3:	Mounting personal debt levels while inflation is running rampant making it difficult for households to keep up financially

Narrow the three topics above to one. Note you can modify any of the suggestions to your group's liking (such as using characteristics of two or more of the possible topics to create a new one). Tip: At this point, email Prof. Nubla (at [dubla@ryerson.ca](mailto:dubla@ryerson.ca)) to "vet" your selected concern and assess if it'll work within the parameters of the Major Project.

Selected Issue/Concern:	The Great Pacific Garbage patch and implementation of ways to clean out the garbage.
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### STEP #3: Brainstorming the Problem Statement (Aim to complete before Class #6)

In the space below, provide more information about your selected public issue/concern.

<p>Issues/Challenge Brainstorming Space:</p> <ul style="list-style-type: none"> <li>- It is estimated that the Great Pacific Garbage Patch contains 1.8 trillion pieces of plastic, weighing almost 90,000 tons. It is located between Hawaii and California, covering 1.6 million square kilometers.</li> <li>- When garbage is dumped into the oceans, the oxygen levels in the water can be reduced, as a result of which marine life would be adversely affected. Sea creatures can also be choked or suffocated by plastics as it takes a very long time to decompose.</li> <li>- The amount of debris in the Great Pacific Garbage Patch accumulates because much of it is not biodegradable. Over time, larger pieces of plastic within the GPBP break down into smaller pieces, become suspended in the water column, or sink to the ocean floor.</li> </ul>
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Marine organisms or seabirds often ingest these plastics by mistaking them for food, not realizing that they are indigestible and have no nutritional value.

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What are sources that can be used to showcase that the issues/challenges above exist?

<https://news.climate.columbia.edu/2022/10/13/how-do-we-clean-up-all-that-ocean-plastic/>  
<https://floridapanhandle.com/blog/ocean-cleanup/>

[https://www.environment911.org/The Effects of Ocean Dumping#:~:text=If%20garbage%20is%20dumped%20into,and%20herring%20could%20all%20die.&text=Bottles%20and%20othe%20r%20plastics%20including%20bags%20can%20suffocate%20or%20choke%20sea%20creatu%20res.](https://www.environment911.org/The_Effects_of_Ocean_Dumping#:~:text=If%20garbage%20is%20dumped%20into,and%20herring%20could%20all%20die.&text=Bottles%20and%20othe%20r%20plastics%20including%20bags%20can%20suffocate%20or%20choke%20sea%20creatu%20res.)

<https://theoceancleanup.com/#:~:text=The%20Ocean%20Cleanup%20has%20developed,in%20five%20years%20from%20rollout.>

<https://oceanambassadorscanada.org/#:~:text=Ocean%20Ambassadors%20is%20a%20regis%20tered,people%20to%20make%20real%20change.>

<https://environment-review.yale.edu/garbage-island-great-pacific-garbage-patch#:~:text=Over%20time%2C%20larger%20pieces%20of,and%20have%20no%20nutritio%20nal%20value.>

<https://education.nationalgeographic.org/resource/great-pacific-garbage-patch>

In the space below, brainstorm key **opportunities** in finding a solution to the issues/challenges? Are there other countries/companies that have found a solution?

- As an individual: Organize beach, river bank, or land cleanups, reduce your use of disposable plastics, make sure you dispose of trash properly, reuse and recycle whenever possible
- Indonesia has one of the most polluted rivers on Earth, and they cleaned it up using a plastics capture system
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What are sources that can be used to showcase that the issues/challenges above exist?

<https://cleancurrentscoalition.org/coalition-projects/citarum-river-indonesia/>  
<https://www.cbf.org/join-us/more-things-you-can-do/12-things-you-can-do-to-clean.html>

#### Step #4: Selecting an Organization (Aim to complete before Class #6)

Identify three possible organizations/associations that are connected to your topic in Canada.

1.	Ocean Ambassadors Canada
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2.	Sea Clean Canada
3.	International Coastal Cleanup

Of the three, above, select one organization/association that best fits your selected focus.

1.	Ocean Ambassadors Canada
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<https://oceanlegacy.ca/>

### Step #5: Selecting Possible Solutions (Will complete during Class #6 -- can begin early)

Have each group member select a specific technology/process that can **potentially** solve the issue/challenge.

Group Member Name (First + Last)	Technology/Process that Can Serve as a Possible Solution	Links to at Least Three Credible Sources Connected to Your Possible Solution
Imani Nyambaka	<p>RiverRecycle</p> <ul style="list-style-type: none"> <li>- A plastics capture system will help clean up the garbage in our rivers.</li> <li>- RiverRecycle installs solar-powered river cleaning technology. It consists of a floating boom with active concentration modules placed along the river to guide the garbage to a collection point.</li> <li>- The garbage is then lifted by an automatic wheel and conveyer out of the water before it is transported to a nearby sorting station.</li> <li>- It can manage up to 1 ton of river waste per day</li> </ul>	<p><a href="https://www.weforum.org/agenda/2021/06/rivers-plastic-waste-clean-up-projects-trash/">https://www.weforum.org/agenda/2021/06/rivers-plastic-waste-clean-up-projects-trash/</a></p> <p><a href="https://boi.ucsb.edu/active_projects/river-plastics-pollution">https://boi.ucsb.edu/active_projects/river-plastics-pollution</a></p> <p><a href="https://cleancurrentscoalition.org/coalition-projects/citarum-river-indonesia/">https://cleancurrentscoalition.org/coalition-projects/citarum-river-indonesia/</a></p> <p><a href="https://www.riverrecycle.com/indonesia-citarum-river-cleanup/">https://www.riverrecycle.com/indonesia-citarum-river-cleanup/</a></p>
Ishan Lodwal	Implementing effective waste management to intercept plastic headed for the ocean in at-risk communities is an	<p><a href="https://pubs.rsc.org/en/content/article/landing/2021/RA/D1RA00353D">https://pubs.rsc.org/en/content/article/landing/2021/RA/D1RA00353D</a></p> <p><a href="https://www.ncbi.nlm.nih.gov/pmc/arti">https://www.ncbi.nlm.nih.gov/pmc/arti</a></p>

	<p>alternative to directly collecting plastic from ocean and river habitats. The most practical method of restoring the oceans is frequently stated to be the direct elimination of plastic garbage at the source through appropriate waste management. This necessitates an integrated system, with a focus on government programmes, consumer education, and infrastructural upgrades, as well as changes to the plastic life cycle.</p>	<p>cles/PMC7386615/</p> <p><a href="https://www.researchgate.net/profile/Wallace-Nichols/publication/268187066_Editorial_Plastic_Pollution_An_Ocean_Emergency/links/54c622550cf256ed5a9c8f3c/Editorial-Plastic-Pollution-An-Ocean-Emergency.pdf">https://www.researchgate.net/profile/Wallace-Nichols/publication/268187066_Editorial_Plastic_Pollution_An_Ocean_Emergency/links/54c622550cf256ed5a9c8f3c/Editorial-Plastic-Pollution-An-Ocean-Emergency.pdf</a></p>
Hamza Malik	<p>System 002</p> <p>- Is an artificial flotation U-shaped coastline that is stretched for 800 meters and dragged through areas of the ocean where plastic is found. After the system is full of garbage, it is gathered and unloaded in the collection area.</p>	<p><a href="https://news.climate.columbia.edu/2022/10/13/how-do-we-clean-up-all-that-ocean-plastic/">https://news.climate.columbia.edu/2022/10/13/how-do-we-clean-up-all-that-ocean-plastic/</a></p> <p><a href="https://floridapanhandle.com/blog/ocean-cleanup/">https://floridapanhandle.com/blog/ocean-cleanup/</a></p> <p><a href="https://theoceancleanup.com/#:~:text=The%20Ocean%20Cleanup%20has%20developed,in%20five%20years%20from%20rollout.">https://theoceancleanup.com/#:~:text=The%20Ocean%20Cleanup%20has%20developed,in%20five%20years%20from%20rollout.</a></p> <p><a href="https://oceanambassadorscanada.org/#:~:text=Ocean%20Ambassadors%20is%20a%20registered,people%20to%20make%20real%20change.">https://oceanambassadorscanada.org/#:~:text=Ocean%20Ambassadors%20is%20a%20registered,people%20to%20make%20real%20change.</a></p> <p><a href="https://www.thisiscolossal.com/2018/10/system-001/">https://www.thisiscolossal.com/2018/10/system-001/</a></p>
Luke McCutcheon	<p>Sending teams of volunteers to clean up garbage from the ocean to reduce the growth of the size of the Great Pacific Garbage Patch.</p>	<p><a href="https://www.youtube.com/watch?v=cV2gBU6hKfY">https://www.youtube.com/watch?v=cV2gBU6hKfY</a></p> <p><a href="https://teamseas.org/">https://teamseas.org/</a></p> <p><a href="https://www.mdpi.com/2071-1050/13/16/9221/htm">https://www.mdpi.com/2071-1050/13/16/9221/htm</a></p>
Ahmed Negm	<p>Teaching children about the consequences of ocean</p>	<p><a href="https://playgroundprofessionals.com/playground/recycled/how-teach-kids-">https://playgroundprofessionals.com/playground/recycled/how-teach-kids-</a></p>

	<p>pollution</p> <p>Making summer camps</p> <p>Implement school activities</p> <p>Teaching children in early hood developments</p>	<p><a href="#">about-pollution</a></p> <p><a href="https://kids.nationalgeographic.com/science/article/pollution">https://kids.nationalgeographic.com/science/article/pollution</a></p> <p><a href="https://mom.com/kids/4978-what-schools-role-influencing-child-development">https://mom.com/kids/4978-what-schools-role-influencing-child-development</a></p>
Nicholas Messere	<p>Interceptors</p> <p>-an innovative new technology that was created by the ocean cleanup in 2019 that removes plastics from a river. Also, when positioned at their mouths, prevents new harmful plastics from entering the ocean.</p> <p>- the interceptor is basically a barrier and conveyor belt system that concentrates and extracts plastic from rivers.</p> <p>-research that was conducted by the Ocean Cleanup shows that 1,000 rivers in the world contribute to 80% of ocean pollution.</p>	<p><a href="https://www.initiativesrivers.org/vos-solutions/interceptor-technologie-innovante-debarrasser-oceans-dechets-plastiques/">https://www.initiativesrivers.org/vos-solutions/interceptor-technologie-innovante-debarrasser-oceans-dechets-plastiques/</a></p> <p><a href="https://www.treehugger.com/what-is-the-great-pacific-ocean-garbage-patch-4864171">https://www.treehugger.com/what-is-the-great-pacific-ocean-garbage-patch-4864171</a></p> <p><a href="https://phys.org/news/2020-01-solar-powered-barge-key-interceptor-plastic.html">https://phys.org/news/2020-01-solar-powered-barge-key-interceptor-plastic.html</a></p> <p><a href="https://theoceancleanup.com/faq/how-does-the-interceptor-work/">https://theoceancleanup.com/faq/how-does-the-interceptor-work/</a></p> <p><a href="https://theoceancleanup.com/rivers/">https://theoceancleanup.com/rivers/</a></p>

### Step #6: Assigning A#2 Roles (Will complete during Class #6 -- can begin early)

#### Assignment #2 Role Breakdown

Roles	Member(s) Responsible
<b>1.0 Organizational Profile</b> Assign to 1-2 individuals.	Imani, Ishan, Luke
<b>2.0 Purpose and Problem Statement</b> Assign to 2-3 individuals.	<a href="#">Hamza Malik</a> , Ahmed Negm, Nicholas Messere
<b>Editor</b>	Imani Nyambaka

Assign one individual to do a final edit (especially for 1.0 and 2.0). Note that each group member is responsible for editing their individual section. You're welcome to make suggestions to your peers' 3.0 sections.	
<b>Project Manager for Assignment #2</b> Assign one individual to serve as the team organizer. This individual will monitor the progress of the team's proposal submission and message individuals as needed to ensure that the due date is met. They can also upload the final submission to D2L.	Imani Nyambaka

Note: If a group member does not contribute and does not write their individual 3.0 portion, only this individual will be penalized (and not the group).

Group Notes:
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**End of Handout**