**Chemistry 233 Choice Project Description**

If you choose to complete it, the choice project will be worth 5% of your course grade. Plan to spend approximately 4-6 hours to complete your choice project, and approximately 1 additional hour rating projects in ComPAIR. If you do not rate projects and provide feedback by the deadline in ComPAIR, you will not receive a grade for your choice project.

*The goals of the choice project are:*

* to give you a choice about what you learn in this class,
* for you to enhance your understanding about a course topic, and
* to provide helpful student-created resources to future CHEM 233 students.

With your explicit permission, outstanding projects may be used to help future CHEM 233 students and posted online (password protected). You will be asked to consent to this when you submit your project. There is absolutely NO penalty for not consenting to sharing your work.

It is essential that the project is your own work, but as long as you appropriately cite sources you can build on other’s work. Information about the appropriate use of digital sources is provided at the end of this document.

**Project Steps**

*Step 1: Choose the goal of your project:*

* address chemophobia in the public,
* link course content to your field of study or future career goal, or
* teach a concept from the course to a student who has completed first-year chemistry.

*Step 2: Choose the format of your product:*

* short video (3-5 min.) with script
* short podcast (3-5 min.) with script
* infographic with a short written summary (approximately 250 words)
* news article/science blog post (approximately 400-500 words)

*Step 3: Create and revise, submit by June 17th, 2018 at midnight*

No late submissions will be accepted as ComPAIR starts immediately after the deadline. Your assignment file must be a PDF, MP3, MP4, JPG, or PNG).

*Step 4: Rate projects and provide feedback on ComPAIR, before June 21st at midnight.*

**Additional Information & Tips**

**Step 1:**

* address chemophobia in the public,

Chemophobia definition and information:

<https://aeon.co/ideas/chemophobia-is-irrational-harmful-and-hard-to-break>

* link course content to your field of study or future career goal, or

Examples: discuss an aspect of organic chemistry that is relevant to nutrition, medicine, pharmacology, environmental sciences (e.g. polycyclic hydrocarbons)

* teach a concept from the course to a student who has completed first-year chemistry.

Can you make a better video about 233 topics? How about explaining how to determine the dominant structure of an amino acid at a particular pH? Here is a list of chemistry misconceptions: <http://www.rsc.org/learn-chemistry/resource/res00001141/chemical-reactions?cmpid=CMP00002173>. You could select one relevant to CHEM 233 and help your audience overcome it.

**Step 2:**

Choose the format of your product. Select the appropriate format for your goals and content. You don’t need to use fancy equipment for the video and podcast, smartphones these days can do the job just fine!

* short video (3-5 min.) with script – submitted as an mp4 file, script submitted as a .doc or .docx. The script needs to be a word-for-word written account of what is said in the video. It will probably help you to write the script before you make the video. Also, a tripod or other way to keep your camera steady is a really good idea. If the video is shaky it is hard to watch. You can record yourself drawing on a board, or piece of paper. Your face doesn’t have to appear, although it can! If you want to get fancy, you could animate the video.

Examples (but I am sure you can do better!)

<https://www.youtube.com/watch?v=PyuBeAHvqoA> (warning: this video includes profanity).

<https://www.youtube.com/watch?v=8izryaOv4Jc> (note, we don’t use H+ on its own in 233, and we cover the condensation a little differently)

<https://www.youtube.com/watch?v=Fk50QMFkR5M>

Derek Mueller makes incredible science education videos – here is a great video he made about why Khan academy-style videos may not help students overcome their misconceptions: <https://www.youtube.com/watch?v=eVtCO84MDj8>

* short podcast (3-5 min.) with script – submitted as an mp3 file, script submitted as a .doc or .docx. The script needs to be a word-for-word written account of what is said in the video. It will probably help you to write the script before you make the podcast. You can structure the podcast as one person speaking, or you could do an interview with a student or other person.

Podcast examples (you do not have to have a guest expert!):

<http://www.cbc.ca/player/play/2241549617>

<http://www.cbc.ca/player/play/2170845328>

* infographic with a short written summary (250 words) – submitted as an image file (jpg, png, tif, etc.), summary in .doc or .docx format. In some ways, the infographic appears to be easier than the video or podcast, but your content must be appropriate for the infographic format. The summary should contain a brief explanation of how you constructed the infographic and why you decided to include the information you did.

What is an infographic? <http://www.dictionary.com/browse/infographic>

Examples of excellent infographics can be found on www.compoundchem.com. In particular:

<http://www.compoundchem.com/2015/08/27/org-comp-names/>

<http://www.compoundchem.com/2014/05/22/typesofisomerism/>

<http://www.compoundchem.com/2014/02/17/organic-chemistry-reaction-map/>

You could try using <https://piktochart.com/> or another free graphic design program to construct your infographic. PowerPoint works fine too!

* news article/science blog post (400-500 words) – journalistic style is highly encouraged but you may use any style you think is appropriate. Information about journalistic style can be found here: <http://scwrl.ubc.ca/student-resources/communicating-science/different-formats/>. Submitted as a .doc or .docx.

**Step 3:** Create and revise, submit to ComPAIR by June 17th at midnight.

**Step 4:** Rate projects and provide feedback on ComPAIR, before June 21st at midnight.

***Attribution and Copyright.***

The following information has been adapted from the SCIE 300/CHEM 300 course blog.

Regardless of your personal opinions about copyright laws in Canada and the fair use of digital media, only media that is clearly licensed for reuse is permitted for use in your project. What does that mean? It means that you must not use any copyrighted music, sound effects, images, or film clips in your assignments unless you have written permission. This may sound harsh, but you still have a lot of options for incorporating images, music, and video into your work without dealing with obtaining copyright permissions.

Many people give their work a Creative Commons license: <https://creativecommons.org/>. Works with a Creative Commons license are often OK to use in your work, as long as attribution is given. There are a few different types of Creative Commons licenses so make sure you read the details. For instance, sometimes it’s OK to reuse an image only in its original form (i.e., no derivatives). That means using it as is. So, no cropping. In fact, no alterations of any kind. The safest thing to do is always provide the source of the content and a link back to the original if possible.

To help you navigate through this, there is a page on the UBC Wiki called Free Stuff (<http://wiki.ubc.ca/Free_Stuff>) that summarizes where you can find suitable materials. For example, it’s possible to do flickr (<https://www.flickr.com/search/advanced/>) and Google (<http://www.google.ca/advanced_image_search?hl=en>) searches that only return images licensed for reuse. Just use the advanced search for both of these and select a Creative Commons license in the licensing search options. In flickr, when you hover your mouse arrow over the license information, you get a definition of what each of the symbols mean. An equal sign means no derivatives. A dollar sign with a line through it means no commercial use.

In terms of audio content, the Free Music Archive (<http://freemusicarchive.org/>), as the name suggests, is filled with music that you are free to download and reuse as long as you give credit to the creator. There is also a collection of creative commons sound effects (<http://www.freesound.org/>), which doubles as a really hilarious way to waste time. Video is trickier. You will find some video on image sharing websites like flickr and Picasa, but not much. If you want to incorporate parts of a video that you find on YouTube into your own work, you must be certain that it’s OK to do so. For example, you cannot just take a clip from YouTube and use it if it has the Standard YouTube license.

Read the description and re-use information carefully. Many government or educational institutions allow their video content to be reused, but remember that you always have to give credit.

Keep in mind that linking and embedding are always OK. Embedding a video from YouTube into your news/journalistic style article, for example, is not creating a new copy of the video. It is essentially just a link to the original.

If you are ever unsure about whether you are allowed to reuse something, you can also send the creator a message (if a contact email is provided) asking them if it’s OK to use their stuff. Most of the time, especially for non-commercial uses, it will be OK and they will thank you for asking.

It might seem like this makes finding materials for your assignment more complicated. It doesn’t. The resources we have summarized here plus the wealth of information available online about Creative Commons, should help you. Remember that this information is relevant to this project and to any materials you may post online in the future. Finally, please remember that YOU are responsible for making sure you use only appropriate materials and are liable for any misuse of copyrighted materials.

***Plagiarism*** <http://www.calendar.ubc.ca/Vancouver/index.cfm?tree=3,54,111,959>

From the UBC calendar: “Plagiarism, which is intellectual theft, occurs where an individual submits or presents the oral or written work of another person as his or her own. Scholarship quite properly rests upon examining and referring to the thoughts and writings of others. However, when another person's words (i.e. phrases, sentences, or paragraphs), ideas, or entire works are used, the author must be acknowledged in the text, in footnotes, in endnotes, or in another accepted form of academic citation. Where direct quotations are made, they must be clearly delineated (for example, within quotation marks or separately indented). Failure to provide proper attribution is plagiarism because it represents someone else's work as one's own. Plagiarism should not occur in submitted drafts or final works. A student who seeks assistance from a tutor or other scholastic aids must ensure that the work submitted is the student's own. Students are responsible for ensuring that any work submitted does not constitute plagiarism. Students who are in any doubt as to what constitutes plagiarism should consult their instructor before handing in any assignments.”

**ComPAIR Evaluation**

You will be asked to compare three pairs of project submissions via the ComPAIR software. The software pairs projects to achieve a ranking of all submissions. I will then examine some of the submissions to assign grades for 4/5 of the points. The other 1/5 is for your participation in the peer ratings, which is required.

ComPAIR will ask you to choose the submission that you think is the better of the two. You should consider the following questions when making your comparison:

* How **compelling** is the submission in achieving its goal of addressing chemophobia, linking course content to an area of study, or helping learners better understand a course concept?
* How **effective** is the content communicated in visual, audio, and/or written form?
* Is the chemistry content communicated at a **level** appropriate for the intended audience? Does the language used **communicate meaning** to the audience with clarity and fluency?
* How well **organized** is the content?
* Did the submission use effective **comparisons or analogies** to enhance understanding?
* Is the content **cited appropriately**, and are copyright licensing requirements met?