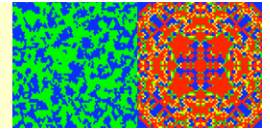# Term Project Guidelines

Project objectives:

1. Research scientific work that has explored biological cooperation:

   ☐ This term project is designed to allow you to become more knowledgeable about a subject that you are interested in. It is recommended that you carefully choose the subject matter that will become the focus of your term project. While your subject must relate to biological cooperation, a great diversity of topics could satisfy the requirements of this project.

   ☐ Using library and internet research, you will obtain at least FIFTEEN (15) related sources of scientific information on how cooperation evolves (your "source list").

   ☐ You will present your list of sources in annotated form, providing a brief summary of each source and its relevance to your interests. Later, you will produce a concept map that depicts the major ideas and concepts found in your source list.

2. Develop, complete, and present a proposal for using a creative medium to incorporate important ideas about how cooperation evolves:

   ☐ Through the development and presentation of a formal proposal, you will identify particular ideas and concepts related to your chosen topic that will be incorporated into your creative work. While it is fine to have a particular medium (or even ideas for how to use that medium) in mind, the major focus of the proposal is to decide what ideas, concepts, and information will inspire your creative work.

   ☐ You will produce a draft proposal for review by your instructor and classmates. You will provide feedback on the draft proposals of your classmates, and they will in turn provide you with feedback.

   ☐ Presenting your proposal to the class will give you the chance to "pitch your idea", and allow for a final round of feedback from classmates.

3. Design and complete a creative work that incorporates important ideas about how cooperation evolves:

   ☐ This assignment is intended to compliment your major studies, so any media that you might employ for other classes is fair game: digital art, websites, flash, animation, jewelry, an advertisement, sculpture, film, short stories, poems, critical analysis, graphic design, photography, painting, fashion design, architectural blueprints, prints, 'zines, interior design, illustrations, or industrial design.

   ☐ Before committing to hours of implementing your creative ideas, you will make a "sketch" of your planned work to present to your instructor and classmates.

   ☐ The best possible outcome for this project would be its incorporation into your portfolio.

   ☐ While you will need to submit your work to your instructor, it will be returned to you within two weeks of submission.

4. Present your *Term Project* in oral and written form:

   ☐ A *Project Summary* provides you with the opportunity to explain how you incorporated scientific information into your term project.

   ☐ All students will present their work during the last two weeks of the class.

Summary of assignments and due dates:

Assignment to be completed	Date Due (at 11:59 pm EST unless otherwise noted)	Points	% of Total
Initial Source List	September 25th	5	2.5%
Source List Concept Map	October 2nd	5	2.5%
Draft Term Project Proposal	October 9th	5	2.5%
Peer Review of Draft Term Project Proposal	October 12th	5	2.5%
Term Project Proposal	October 16th	15	7.5%
Term Project Proposal Presentation	October 23rd (*in class*)	20	10.0%
Peer Review of Term Project Proposal Presentation	October 26th	5	2.5%
Term Project Sketch	October 30th	5	2.5%
Peer Review of Term Project Sketch	November 9th	5	2.5%
Draft Project Summary	November 13th	5	2.5%
Peer Review on Draft Project Summary	November 20th	5	2.5%
Final Term Project & Project Summary	November 27th	100	50.0%
Final Term Project Presentation	December 4th & 11th (*in class*, sign up on *LMS*)	20	10.0%
TOTAL		**200**	**100.0%**

Component Steps for Completing the Project:

Initial Source List:
The first step in completing your project is to identify sources you can use to inform your *Term Project.* Using search resources in the library and on the web, identify at least fifteen (15) sources that provide relevant information about your chosen subject. This page may help you find valuable sources: http://www.christopherxjjensen.com/teaching/for-students/#Research-res. You are required to use at least three (3) books found in the Pratt library in your source list, and primary scientific literature will be valued over secondary or tertiary sources (especially when your source is a website). After you have identified the sources you will use, create a source list that:
- briefly describes the subject matter that will be the focus of your research
- makes a complete citation (see *Citations* below) for each source
- provides for each source a short paragraph summarizing the important information and ideas provided by that source

Source List Concept Map:

You will receive feedback from your instructor on the quality of your *Initial Source List.* Add to or modify your source list as necessary in response to this feedback. Once you have solidified your *Source List*, consider how the different sources you have selected present related information. Construct a concept map using VUE (http://vue.tufts.edu/). This concept map should:

- contain "nodes" for all of your sources;
- contain "nodes" for all of the important information, ideas, and concepts provided by your sources;
- depict and describe the relationship between each of your source nodes and the "information/ideas/concepts" nodes; and
- depict and describe the relationship between your different "information/ideas/concepts" nodes.

Term Project Proposal:

The purpose of submitting the *Term Project Proposal* is to distill the research you have performed into specific, clear subject matter that will be incorporated into the project. The proposal should cover:

- what subject matter your project will focus on;
- what you have learned through research about this subject matter;
- what important information/ideas/concepts you would like to incorporate into your creative project; and
- how you imagine you might incorporate scientific material into your creative work, and perhaps what form the creative work might take.

All material taken from one or more of your sources should be properly cited (see *Citations* below).

Term Project Proposal Presentation:

During Week 09, each student will be given ten (10) minutes to present her *Term Project Proposal* to the class. How you use that ten minutes is in part up to you, but your presentation should cover all of the major components (listed above) of your *Term Project Proposal*. Students who wish to make use of the multimedia capabilities of our classroom will be given the opportunity to upload a presentation before they come to class to present. If you upload presentation materials directly to the *LMS* prior to Week 09's class, your instructor will assure that these presentation materials are loaded and ready to use when it is your turn to present. Although you are not required to do so, you may wish to show the concept map that inspired your proposal.

Term Project Sketch:

Chances are that you will spend a fair amount of time executing the creative work that will make up your *Term Project*. To make sure that this time is well spent, you will submit a "sketch" of the work you plan to execute. What constitutes a "sketch" will vary based on the kind of work you plan to do, but all sketches should include:

- a description of what medium or media you plan to use to create your work;
- a clear and specific plan for what you are going to be creating; and
- an explanation of how the work will incorporate the scientific content identified in your *Term Project Proposal*.

Feel free to discuss with your instructor what form your "sketch" should take.

Final Term Project:

The overall goal of the *Term Project* is to incorporate important information about how cooperation evolves. There are many subjects that can successfully serve as the focus of the project, and there are many ways of incorporating science into creative work. Remember that while the work must express scientific concepts, it need not do so on its own: the *Project Summary* can serve to explain

subtle or abstract ideas that are present in the creative work. Because the final *Term Project* may take a great variety of creative forms, different students will deliver their *Final Projects* in different ways:

- If your project is purely digital, it can be directly uploaded to the *LMS*. Some movie projects may exceed the *LMS'* upload limit of 50 mB, and should be uploaded to a film-streaming site such as YouTube or Vimeo (please provide the URL video in the "notes" section of the *Final Term Project* submission page on the *LMS*).
- If your project is analog, you should upload a set of at least six (6) portfolio-quality images of your work to the *LMS* as a single PDF file. In addition, you must deliver the project to your instructor. If your project is an installation and cannot be delivered, you must arrange a time for your instructor to visit your project.

Project Summary:

All students will submit a *Project Summary* that includes an *Annotated Bibliography*. The *Project Summary* should:

- provide general scientific background required to understand the project;
- describe and explain the scientific information, ideas, and concepts that were incorporated into the project, using citations to indicate which sources provided particular content;
- discuss how particular creative methods were used to incorporate the information/ideas/ concepts into the work; and
- identify the intended audience for the work and explain the impact that the work is designed to have on that audience.

Each *Project Summary* will be accompanied by an *Annotated Bibliography* that provides for each source not only a complete citation but also a short paragraph summarizing what information/ideas/ concepts this source contributed to your project. See below for exact formatting guidelines.

Final Term Project Presentation:

During the final two weeks of the course, each student will be given fifteen (15) minutes to present her *Term Project* to the class. How you use that fifteen minutes is in part up to you, but you are encouraged to leave some time for questions and/or comments from your classmates. While presentations will cover a variety of project elements, successful presentations will focus on:

- how the final creative work produced reflects the student's research and conceptualization process;
- what ideas the student wanted to incorporate into the final creative work; and
- how these ideas were incorporated.

Students will be given the opportunity to sign up for presentation slots several weeks before presentations take place. Students who wish to make use of the multimedia capabilities of our classroom will be given the opportunity to upload a presentation before they come to class to present. If you upload presentation materials directly to the *LMS* prior to Week 14's class, your instructor will assure that these presentation materials are loaded and ready to use when it is your turn to present. Students whose work is purely digital or cannot be delivered to the classroom are required to create a presentation to project their work for the class.

General Guidelines for Completing the Project:

Draft Work:

Throughout the semester you will be asked to submit "draft" work for review by your instructor and your *Peer Review Group* (see below). Although it is expected that "revised" work will be superior to "draft" work, the term "draft" should not be construed to mean hastily-conceived, incomplete, or

poorly-composed. Those students who present the best possible "draft" work will get the most out of the review and revision process.

Peer Review Groups:
During Week 06 of class you will be assigned to a "Peer Review Group" of 3-4 students. Groups will be formed based on the concept maps submitted during Week 05, and will meet periodically during class to discuss their progress on the *Term Project*. Throughout the remainder of the semester, you will be asked to provide formal peer review to your fellow group members based on their *Term Project* work. In turn, your fellow group members will reciprocate by providing you with formal peer review. Pay heed to your review group: your revised work is expected to address and/or incorporate the comments and suggestions made by your peer reviewers. You will be graded on both the quality of peer review you provide and how well you respond to valuable feedback from your reviewers.

Format of the *Project Summary*:
1. Please present your *Project Summary* in type-written, **single-spaced** format. The font should be 12 point, margins should be 1" on all sides.
2. Produce at least one (1) and no more than two (2) pages of **single-spaced** text.
3. Along with the main *Project Summary,* also provide a numbered *Annotated Bibliography* (does not count towards page minimum or maximum) that: a) lists each of the sources you used to inform your project in a standard citation format (see below); and b) provides a short paragraph summarizing what information/ideas/concepts this source contributed to your project.
4. Reference all ideas that are not your own using your numbered *Annotated Bibliography*. Both superscripts[1] and bracketed [2] citations are acceptable, but use a consistent format.

Citations:
1. In referencing your citations, use the correct number from your numbered *Annotated Bibliography*. *For example:* "Bees that live in more complex environments have a more diversified caste system [6]."
2. Please use a standard bibliographical format and use it consistently.
3. Please be careful about web citations. Much of what is published on the web is unreliable. It is up to you to assess the validity of all your sources.
4. Internet references should be cited with a page title, a full URL address, and the date accessed. *For example:* Jensen, Christopher X J., "The Quest for the Perfect Hive", http://www.christopherxjjensen.com/2010/06/07/the-quest-for-the-perfect-hive/, Accessed 9-Sept-2012.

Submission of *Term Project* work:
Unless otherwise specified, all submission of work should be done via the *Learning Management System* (*LMS*) in *Adobe PDF* format. Formats other than PDF will not be accepted. Analog creative work (whether it be two- or three-dimensional) must be photodocumented as described above and submitted to your instructor. There is a 10% penalty per day of lateness for all assignments.

How you will be graded:
Your grade will be primarily based on how well you meet the objectives stated above. In addition, your instructor will assess how well you expressed an understanding of evolutionary concepts. All written work is expected to use proper spelling and grammar, except where obvious and necessary creative liberties are being taken with the language. Please see the *LMS* for sample grading sheets that provide you with a precise idea of how you will be graded.

On academic honesty:
Plagiarism of any kind will not be tolerated. All cases of suspected plagiarism will be turned over to the Registrar's office for potential referral to the academic judiciary. Please be careful to indicate the source of all ideas other than your own; this includes both direct quotes ("evolution is the science of...") and paraphrasing of books, scientific papers, and websites. Careful citation makes you seem more authoritative in whatever you write.