

Joel Rubin, Biology – WID Teaching Portfolio

101-921-DW Human Biology Research Project

Your Goal

To effectively communicate your knowledge of a biological topic to your peers.

Project Overview

In a team of 3-4, research a topic in human biology, ask a specific question related to that topic, and discuss your answer to that question in a presentation to your peers.

Project Evaluation Overview

The project is worth 10% of your final grade and will be marked out of 40.

The breakdown of the marks are as follows:

Team Grade: 20 Marks.

Individual Grade: 20 Marks.

Project Tasks and Timeline

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| 1. Complete Team Members Form | Week 3 |
| 2. Complete research topics form and team meeting 1
Tasks to accomplish:
A. Preliminary research.
B. Choose 3 potential research topics. | Week 5 |
| 3. Complete project proposal form and team meeting 2
Tasks to accomplish:
A. Research your topic.
B. Compile sources and build a bibliography.
C. Write a one-page introduction to your topic.
D. Propose 3 questions to pursue for your presentation. | Week 10 |
| 4. Present your project to your peers.
Tasks to accomplish:
A. Discuss your answers to your question with your team.
B. Decide on the format for your presentation.
C. Prepare your presentation. | Weeks 13-14 |

Project Description

Form a Team.

You must form a team of 3 to 4 students. Your team must consist of peers registered in your lab section, as team presentation will be conducted during your lab period.

Choose a Research Topic.

Use your textbook for a general overview of specific topics in human biology. Particularly interesting topics can be found in chapters on *Special Topics* and in *Essays* highlighting environmental, ethical, and health issues in human biology.

Once you have done some preliminary research, use the appropriate form to propose three topics of interest to your team. Your instructor will review your choices and help you decide on one during a team meeting. Team meetings will be held during week 5. Bring your completed form and be ready to discuss your ideas.

The goal is to choose relatively specific topics to help you focus your project so that you are not overwhelmed with information and so that you can eventually come up with a very directed question related to that topic. For example, *cancer* is too general. I expect you to focus on a specific type of cancer such as *skin cancer* or a particular aspect of cancer such as *new cancer therapies*.

In addition, your goal should be to find topics that you are interested in exploring. Think of topics that have an impact on your life. If you are genuinely interested in a topic, your project will much more fun and rewarding.

Research Your Topic.

Find additional sources that discuss your specific topic in human biology. Use literature search engines such as *Google Scholar* (<http://scholar.google.ca>) to find articles related to your topic. In addition, you can search for discussions about your topic in podcast archives from radio talk shows such as *Science Fridays* (<http://www.sciencefriday.com>).

Build a Bibliography.

Build a bibliography of 5 relevant and trustworthy sources of information that were most useful in building the foundation of your project. Your textbook will be a good preliminary source but should not be included in this list. Your bibliography will be included in your official research project proposal form.

Ask a Specific Question Related to Your Topic.

What questions has your research sparked? Discuss these questions with your group. Use the appropriate form to list three questions that your team would like to explore. Your instructor will review your questions and help you decide on one during a team meeting. Team meeting will be held during week 10.

Please do not propose general question such as: *What is the immune system?* For example, you may have explored potential stem cell therapies. Your research may have led you to ask a specific question such as: *Are some sources of stem cells more ethical than other?*

Present your Project to your Peers.

Present your project to your peers in an interesting way. Build a slide presentation, debate your question, act out a play, make a movie. The goal is to introduce your topic, pose a specific question, and discuss your answer to that that question as a group.

Introduce your topic to give your peers enough background to understand the impact of your question. Remember, you are presenting your project to your peers. Make sure that you present the scientific content in a way that they will understand and find interesting.

Presentations are minimum 3 minutes per person to a maximum of 4 minutes per person. If you are a group of 3, that means minimum 9 minutes and maximum 12 minutes. If you are a group of 4, that means minimum 12 minutes and maximum 16 minutes. There will be a 4-minute question period at the end of the presentation.

Evaluate your Peers.

You will be evaluating your peers during the lab period in which you are not presenting. You will be given a *Peer Evaluation Form* to complete. You will also be expected to ask your peers questions at the end of their presentation. In addition, the *Peer Evaluation Form* will contain an area for you to comment on your peers' presentation. Your participation during presentations and peer evaluation will contribute to your participation mark.

Evaluation Description

Each criterion will be given a grade of 5-0. Where 5=Excellent, 4=Good, 3=Average, 2=Below Average, 1=Unacceptable, and 0=Not Completed.

A. Team Grade (20)

1. Quality of research and sources. (5)
2. Quality of project proposal. (5)
3. Quality of presentation. (5)
4. Team work. (5)

B. Individual Grade

1. Individual's participation in team meetings and peer evaluations. (5)
2. Individual's performance during presentation. (5)
3. Individual's ability to convey information to their peers during the presentation. (5)
4. Individual's understanding of topic and project. (5)

N.B. Marks will be deducted for late submissions and not respecting guidelines.

Human Biology Research Project Schedule

Week of:	Activity	Document to Submit
January 30	Form Team	Team Members Form
February 6	Preliminary Research	
February 13	Team Meeting 1	Topics Ideas Form
February 20	Research	
February 27	Research	
March 5	Research	
March 12	Research	
March 19	Team Meeting 2	Project Proposal Form
March 26	Presentation Preparation	
April 2	Presentation Preparation	
April 9	Presentation Preparation	
April 16	Presentation Preparation	
April 23	Presentations or Peer Evaluations	Presentation Document or Peer Evaluation Form
April 30	Presentations or Peer Evaluations	Presentation Document or Peer Evaluation Form