

**CMPSC 580
Junior Seminar
Spring 2019**

**Assignment 5:
Thesis Proposal Assignment
GitHub Repository for Submission**

By the end of the class session today, you must commit and push a tentative title of your proposal to your GitHub repository and complete the first and second reader selection form.

Google Form Link

Use this link to vote for your first and second reader.

<https://goo.gl/forms/vImyM49KkcDx1LDF3>

GitHub Starter Link

<https://classroom.github.com/a/gsrRxAPL>

To use this link, please follow the steps below.

- Click on the link and accept the assignment
- Once the importing task has completed, click on the created assignment link which will take you to your newly created GitHub repository for this lab,
- Clone this repository (bearing your name) and work locally
- As you are working on your lab, you are to commit and push regularly. The commands are the following.
 - `git add -A`
 - `git commit -m ‘‘Your notes about commit here’’`
 - `git push`

1 Introduction

As we work our way through the rest semester, we will be working continuously on a proposal for a senior thesis idea. Each of your sections in your final proposal will build toward the final goal of the project but writing each part can be a deliverable in itself. To help create this concise, informative and illustrative proposal, we will be spending time to write each section, piece by piece.

Specifically, each week you will tackle a particular section of the proposal document, participate in peer editing exercises, and revise your written content, before proceeding to the next section of

the proposal. This will allow you to determine the best ways to describe your ideas as they build on each other for your senior proposal and to ensure you complete a carefully written document. Each portion of the assignment has a specific due date outlined in the course schedule.

You will use the same repository for each portion of the assignment. As you work on different components of your proposal, you may find it useful to utilize a proper GitHub Flow. Spend some time during the class today to explore GitHub flow and concepts such as branches, pull requests, and merges. You can begin your exploration by reading [Understanding GitHub Flow](#). Then, you can practice by following the steps outlined in the GitHub flow guide.

2 Summary of Deliverables

Your work in each section is to be seasoned with the spices of project motivation, causing the aromas of relevance in scholarship to materialize and drift freely to the reader; an effort to ensure a continued appetite for fascination and excitement.

You are to write a document containing a proposal for the completion of your research idea. The goal of the proposal is to relay your novel idea to your future committee and other readers by motivating it properly, placing it in the context of existing work, describing the specific details of how you plan to accomplish the goals of your proposed project, and carefully considering the feasibility of the project and the timeline of its completion.

The final proposal is to contain the following sections, although others may also be required for your particular projects.

- Document to contain the following sections:
 - **Title:** An informative and catchy title for your proposed project.
 - **Abstract:** An overview of your project where you include some of the highlights of your motivation, method, anticipated results, discoveries and conclusions. Since this section is only about 250 words, you will not have much space to include all these elements in a lengthy discussion. You will have to be very brief, yet meaningful in your discussion of the associated parts of your work. It is often easier to write the abstract once all of the other sections of the proposal have been completed.
 - **Introduction:** All written projects begin with an introduction section where the main ideas of the work are introduced and contemplated. The reason for why the reader is to care about this connection is addressed while enriching the reader's knowledge about the problem and why it should be solved. Here you will also spend time working to develop support for your novel idea and to motivate your approach in light of the existing field relevant to your proposed work.
 - **Related Work:** In this section, you are adding relevance to your work by situating it in relation to other studies, lines of thinking, research projects, methodologies, etc. In your introduction, you will briefly situate your work within the larger body of existing knowledge. In the Related Work section you will explain in more detail what is already known about your research area. To make this discussion, you will be citing peer-reviewed literature, existing software projects, and common knowledge in the field (from

the books) to allow the reader to understand the significance of your proposed work. Utilize your experience from the literature survey assignment to properly summarize existing research articles and projects and point out how they fit within your proposed project.

- **Methodology:** In this section you will inform the reader how (exactly) you intend to prepare some solution or to reach your goal of research. For instance, all steps that you take to complete some part of your work ought to be described so that one is able to re-create your steps and to produce your same conclusion. Write this section as if you are writing it for yourself – if you have these notes available to you, then you will not forget how to perform different types of research where the approach to the research is similar in the future. Specify any relevant algorithms, software tools, programming languages, etc. that you will utilize for the completion of your project.
 - **Timeline:** In this section, you will order each part of your work and describe when the part will be completed. You will provide a starting and ending time for each of these tasks, in addition to some type of indication about when the entire project should be completed. Be sure to not be too optimistic in how long you imagine each task will take to complete. For instance, some tasks may take time and be out of the researcher's control to complete. For these types of tasks, we aware of the potentially time blocks necessary to complete the task. Please keep in mind that your timeline should refer to Spring 2020 semester and your final project should be fully completed and your thesis document should be fully written by April of 2020.
 - **Conclusion:** In this section, your proposal document will draw to a close. Here you will remind the reader of the advantages of your proposed idea. You will discuss how the outcome will be a benefit and describe how your proposal is feasible at Allegheny and can actually be completed in the time frame that you specify.
- Length: 10-12 pages. If you have many graphics then you might have more pages than this.
 - Bibliography: You are to use a minimum of 10 references in your proposal.
 - At least one diagram or flow chart. Reading some of the detail that goes into one's proposal may be complicated and so the addition of a graphic to describe will be a great help to the reader. Remember, you *want* the reader to completely understand your work since they represent those who can offer you an incentives to complete the project on time.
 - At least one table or graph to enable the reader to understand existing work and/or your methodology.

Peer Editing

Each week you will participating in a peer-editing activity during the class session, where each individual is to read the work of another and to offer constructive feedback. To help you to be constructive and effective during this editing task, you will be following questions such as those below. The actual questions, which will differ from section to section, will given to you during the assignment of the peer editing deliverable. You must have each section of your proposal read and edited by at least one person in this class, and you must read and edit at least one peer's proposal

sections other than yours. To offer your feedback to your peer, you will submit your feedback (the answers to the leading questions) written in a proper Markdown language into the peer's *issue tracker* on GitHub. For this, you will have ensure that you have access privileges from your peer.

- The writing is free of typographical and grammatical errors.
- The writing in each section has a logical flow.
- The document includes some visuals such as diagrams, flowcharts, etc.
- The motivation and the arguments in the paper are well cited.
- There are sufficient recent citations present.
- The writing contains sufficient detail to allow an entry-level researcher to understand its premise.
- Each section contains a summary statement.

3 Evaluation and Due Dates

Although you will receive notice in class, you are to refer to the course schedule for the deadlines of each section's deliverable. The failure to complete and submit drafts of each section by the stated due date will result in a reduction of your proposal grade. Failure to participate in peer editing process will result in a failed participation grade for that activity. **The final proposal document that has gone through multiple iterations of peer review and revision is due on May 2nd 2019.**