# Comments from Mark K on first draft:

# Goals should include proposing /recommending improvements to current practice. I think that differences in what is taught / professionals use will be difficult because of breadth of teaching / use-- you won't have enough data to objectively analysis. Instead, focus on the application of best practices (individual / team) based on your research / exploration of current situation and your knowledge. Describe further about your career goals in addition to being an "expert" -- such as do you want to consult, manage, use in recruiting, hr, etc.

CSS 496 Capstone Plan/Contract

**Name: Gabriel Smith-Dalrymple**

# Title

Personal and Sustainable Strategies to Improve the Practice of Software Development

# Description

This project will be an original piece of research that will involve informational interviews and literature research. My project will look to address one of the most common issues in software development and that is employee burnout. I am going to interview professionals and find out what techniques they use to combat burnout, and I am going to look at what is taught that works vs. what actually works.

# Purpose

This work is relevant because burnout is common problem in the software development industry. As the industry has evolved to better suit the user’s/client’s needs it hasn’t moved at the same speed for the people making the software.

* This is important to me because I have experienced extreme burnout before and if it wasn’t for an exceptionally great mentor, I wouldn’t have come back to software development.
* This is important to customers because burnout is one of the largest problems in the software development industry. It exists in all forms of software development, and is especially bad in the video game industry.
* This is worthy of a capstone to my degree since it focuses on how to improve the practice of software development by not making monolithic proclamations to the industry, but by looking at a grassroots movement of small incremental changes people can do.

# Goals

* Identify methods software professionals use to prevent burnout
* Interview at least five software development professionals
* ~~Find a minimum of three differences between what is taught and what professionals use~~
* Recommend improvements to current software development practices that individuals can do
* Recommend practices to current software development practices that teams can use

# Stakeholders

This should be a general interest to anyone who is interested in being or already is a professional software developer. The key stakeholders however will be those people who are in the software development industry and are feeling like they might be experiencing a bit of burnout and want to prevent that or a student who is leaving college and wants to find ways to keep from burning out.

# End Result

The result of this project will be a list of practical and small techniques that professionals use to combat burnout, and a list of differences between what is taught and what is useful. With each of the previously mentioned lists I will also include additional information about why the technique is useful, and how it’s used, or where the difference is and how it should be corrected.

I am going to demonstrate my research by writing a paper about it, and utilizing the techniques I learn through my time as a team leader in one of the classes I am taking concurrently with this class.

# Contributions

This will be a wholly new research project which is bound to create some new knowledge or insights. I will also be contributing to my minor field of Consciousness & Creativity by looking for new ways or techniques that people have come up with to deal with stress and burnout in a field that doesn’t look too much into the mental welfare of its own employees.

# By Student: Minor & Career

For Gabriel Smith-Dalrymple, as a Consciousness & Creativity minor, this capstone will help me find my 1st job in multiple ways. This capstone will allow me to network with and connect to multiple industry professionals, it will also let me become an expert about how to help prevent a massive problem in the software development industry. This project will help me find a job as an aspiring Project Manager by having a better understanding of individuals and teams’ work. I will also be able to better talk to recruiters and interviewers about how I would run a team since I will have a better understanding of the practical experience of being in a professional software development team.

# Schedule

| **Wk** | **WHO** | **ACTIVITY** | **DELIVERABLE** |
| --- | --- | --- | --- |
| 1 | Gabriel S-D | Figure out project | N/A |
| 2 | Gabriel S-D | Contact professionals | Meet Prof |
| 3 | Gabriel S-D | Begin interviews | Create paper outline |
| 4 | Gabriel S-D | Interviews and research | Interview questionnaire |
| 5 | Gabriel S-D | Interviews and research | First draft of paper |
| 6 | Gabriel S-D | Interviews and research | Iterate on paper |
| 7 | Gabriel S-D | Conclude all interviews | Second draft of paper |
| 8 | Gabriel S-D | Share results with interviewees | Iterate on paper |
| 9 | Gabriel S-D | Focus on paper | Third draft of paper |
| 10 | Gabriel S-D | Finalize paper | Final paper finished |
| 11 | Gabriel S-D | Finish poster and prep for presentation | Demos |
| Final's wk | Gabriel S-D | Prep for presentation | Colloquium |

For Research Papers only

# Outline

My basic outline for this project will look something like this:

* Introduction
* Pre-Work Techniques
  + List of techniques
* During Work Techniques
  + List of techniques
* Post-Work Techniques
  + List of techniques
* ~~Practical v. Taught~~
  + ~~List of differences~~
* Conclusion