# Progress Report 8

Date: 2020-12-21
Members: Edwin Aldrich, Logan Drescher, Bettina King-Smith

# Overview

With the completion of finals week for all members of the team, we are starting back up in terms of productivity.

# Accomplished

- **Bettina has started development of a comparison feature to compare algorithms.** This is an important step in being able to justify our algorithm.
- **Edwin is in the middle of code review and fixing our broken TimeAlgorithm class.** Since we need to compare our new algorithm against the “old” algorithm, fixing TimeAlgorithm is also a necessary step.
- **We all talked with Prof. Armen about algorithm design (again).** He gave us a new thread to follow regarding how to adapt Simplex to our needs (or find a cousin algorithm to use)
- **Logan has started working on finding an alternative to Simplex.** This isn’t to say we’re starting from square one, but rather looking to see how other similar algorithms might be a better fit for our project.

# Next Tasks

Our top priorities over winter break will include:

- **Logan will figure out how to convert our course registration requirements and limitations into standard LP form, and implement it**. He is currently thinking that Integer Linear Programming might be applicable in this case, and is working out how to actually implement this.
- **Edwin will get TimeAlgorithm working and usable.** This is mostly identifying where the broken code currently lies and then patching the semantic error.
- **Bettina will continue working on the Course-First Algorithm.** This is similar to TimeAlgorithm in the sense that we need it to work in order to prove our new algorithm is better, but this will be an extension rather than an edit of code.

- **Bettina will figure out how to convert our course registration problem into a proof of concept Dynamic Programming (aka recursive) problem, and implement it.** Bettina would like to explore alternatives to the LP solution and thinks that a recursive solution might be applicable without being too space-heavy.
- **We (likely Bettina) will email Professor Syta by the 2020-12-31 deadline.** We will include details about progress regarding our algorithm and a statement about whether or not we are in a good place to proceed with the project at the current scope.