**Requirements Specification (1 Day)**

* Requirements have been thoroughly described in Assignment 1:
  + The system will have user accounts for students, instructors, and an administrator account
  + All accounts should be derived from a base user account that holds the person’s first and last name as well as the ID value associated with them
  + Students will have the ability to search for courses, add/drop courses from their schedule, and print the final schedule
  + Instructors will have the ability to print their schedule, print their class list and search for courses.
  + The admin account will be able to add courses to the system, remove courses from the system, add and remove users, add and remove students from courses, and search and print rosters and courses.
  + The database for users must be able to hold 100 students, 10 instructors and 1 admin.
  + The database of courses must contain information such as the CRN, course name, times, and instructor.
  + The system should include multiple semesters, print-out of schedule, and scheduling preferences for courses.

**Component Analysis (3 Days)**

* Since the purpose of the project is to create a system like Leopardweb, it would be effective to use the same programs that Wentworth does: Ellucian Banner and Microsoft Azure
  + Ellucian Banner will provide the interface for users to interact with their courses, information, class lists etc.
  + Microsoft Azure will be used to manage the user databases, adding and removing users from the network, altering their permissions for certain aspects of the Banner program etc.

**Requirements Modification (2 Days)**

* User accounts will be given specific permissions instead of creating a class with attributes and methods
* Database for users will be controlled by Azure, course database will be handled by Banner
* All other requirements remain the same

**System Design with Reuse (4 Days)**

* Azure can hold up to 300,000 user accounts, so base requirements will not be an issue
* Functionality for users will be assigned based on the type of account they have in Banner
* User’s will be able to access the course database through a student portal, instructors and administrators will be able to access course data and class lists through Banner directly
* Administrator will be able to grant access to Banner to users
* Administrator will add users through Azure Active Directory and then update the database in Banner to allow new users to access their respective Banner portal
* Banner will handle searching, adding and dropping courses for users as well as printing out the schedules for users.

**Development and Integration (3 Weeks)**

* Modify and edit the two programs to function as required
* Ellucian has consultation lines for assistance with editing the program

**System Validation (2 Weeks)**

* Input the user accounts into Azure to ensure they are interfacing with Banner properly
* Create dummy accounts for instructors and students to ensure the proper permissions are offered to each type of account, the proper information is being printed in a readable format, and all methods function correctly

**Sources**

* <https://azure.microsoft.com/en-us/>
* <https://www.ellucian.com/>