

Waterfall:

| Requirements | Design | Implementation | Integration | Operation/Maintenance |
|--|---|--|--|---|
| <p>The system must include: 100 Students, 10 Instructors, and 1 Administrator. In addition to this, courses must be created, each including the CRN, course name, times, and the instructor for the course. Students must be able to register, see available courses and their own schedule. Instructors can see available courses and their own course roster. The admin can see everything, can edit courses/users/schedules. This system must include multiple semesters.</p> | <p>The design of the system will begin with two databases, these being the users and the courses. From there, methods will be created for each of the types of users. The main code will create the 111 users (with their respective type) and call each method for the types of users.</p> | <p>Code will be implemented in the section, beginning by creating the users. Users will have a base class that is inherited by the three subclasses. Each subclass has its respective methods. This database will then be updated with the course database, which. The course database will be applied to the users so that the methods function as described in the requirements.</p> | <p>Testing the users' methods requires creating users, then calling each method. The first test will just ensure each function is called properly. After such, the database will be tested by printing out the available courses and their attributes. Lastly the courses will be integrated into the system user database. The final test will call each method of the three types of users with the courses applied.</p> | <p>Once integration and system testing are complete, the full database of 111 users will be created. The system may be updated with a UI.</p> |