

YACS Fall 2025 Project Proposal

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Grand Vision:

At RPI, students currently use two main course scheduling platforms: QUACS and YACS. While QUACS is more widely used due to its intuitive user interface and higher visibility, YACS has the potential to grow into a much more powerful and central tool for academic planning.

Right now, YACS offers basic features like semester scheduling, pathway and professor exploration, and account creation (though accounts lack any real purpose). The platform has some important limitations in that it's only accessible on RPI WiFi, the interface isn't especially intuitive, and it doesn't offer much to distinguish itself from QUACS.

This project proposes a complete reimagining of YACS through a modernized front-end and several new features designed to make it both more useful and more community-oriented for all RPI students.

One major addition would be pivoting YACS to include a social networking feature for RPI students, professors, TAs, and staff. With RPI email-based account registration, users could share their schedules, collaborate on four-year plans, form study groups, and exchange insights about classes. Professors could also use the platform to advertise new or recommended classes in a more specialized way than info dumping in a student's inbox.

Another feature (which is being currently worked on as of Spring 2025) is a four-year academic planner. This would allow students to map out their entire RPI experience, incorporating major requirements, electives, minors, dual majors, and pathways, which would work seamlessly with the current semester-by-semester scheduling to make class registration season a stress-free time.

More details and wireframes can be found in the sections below.

Team:

The project can support a team of around ten students, with flexibility depending on interest. If the group grows larger, members would be split into smaller subgroups, each with a representative who joins a weekly stand-up meeting with the project lead to discuss progress and any blockers. The project lead would also hold weekly stand-ups with every member of the team to ensure that everyone is satisfied and busy with the work they are doing. The team would likely be divided based on project needs—such as back-end development, front-end redesign, and maintenance of the current front-end—but exact roles would depend on who joins and what they're interested in working on. The structure is meant to be flexible and focused on

collaboration, giving students the chance to contribute meaningfully while improving a tool used across the RPI community.

Goals:

Implement new front-end:

This includes a new color palette, and implementing the new logo which has already been designed. The goal should be to make it more intuitive for first time users.

Organize databases:

A new organizational structure is necessary for much of the feature descriptions below. This is currently being worked on this semester, but will likely need maintenance as we implement new features.

Advertisement:

Many students don't know about YACS. Once we have created enough of a rebrand, I would like to be putting posters up and maybe posting on Instagram to get users. I would focus on getting incoming freshmen to use YACS as it is hard to get upperclassmen to change from something they've been doing for years.

Four-year plans minimum viable products:

*a student's major, minor, and COHORT should be saved in their account, and auto populate, but they should be able to change these to see what it would be like to change their majors. It should also be functional if you are not logged in, so prospective students, parents, etc can use it.

- 1) Set up with basic eight semesters, including an option to choose which semester in junior/senior year you plan on doing Arch away. There is an option in the corner to add major, minor, pathway, etc, and then all your requirements show up underneath.
- 2) Credit bar/tracking: essentially a bar that is more filled up with how many credits you currently have on your page. Also, if you have less than 12 credits or more than 21 or 24, it lets you know.
- 3) Suggested semesters: When you add a major, it will autopopulate with what semester the catalog suggests you take them. This will require going back into the JSON to add that information.

- 4) Prerequisites: When you add a class to your semester plan before its prereq, it will have a red dot or something next to it letting you know. It should also allow you to click on the dot and select 'Transfer credits' or 'override' so people can manually get rid of the red dot.
- 5) Integrate what quatalog does: based on previous years, you can only move a class into spring, fall, or summer based on whether that class is normally offered there.
- 6) Allows students to save a worksheet in their account, and make an entirely new one for funsies.
- 7) Allows for greater flexibility in semesters by allowing you to add, delete, and change the year of each for the following situations: getting an Arch exemption, graduating early, Architecture majors needing 5 years, taking extra semesters for a planned four-year degree.

Student account minimum viable products:

* Currently, students can make an account but they can't do anything with it. Hopefully, we will eventually be able to make the site accessible when you are not on RPI wifi. In that scenario, we should make it that you need an RPI email to make an account.

- 1) Profile page where students can see and change their basic information: name, cohort, major and such, etc.
- 2) Students should be able to save planned courses for a semester or their saved four-year plans.
- 3) Students can enter the classes they have already taken and their transfer credits so that when making a four year plan, it will solidify in there and can't be changed.
- 4) Students can add friends within their profile. They can then view other student's profiles and see a semester schedule that that student has posted. Students can choose whether or not to post a schedule for an upcoming semester. If a friend has posted their schedule, maybe when I am planning my schedule for the upcoming semester, there can be a little note next to a class I added that notifies me my friend plans on taking it. In no particular order:
 - ability to plan study groups and the like based on students taking mutual classes
 - the ability for professors to write notes about their classes

- this could lead to a new page: a feed, which you could scroll through and see requests for study groups, posts by professors advocating for students to take specific classes
- this feature could be called inter-yac-tions

Schedule:

By first week of September: finishing on-boarding, make sure every team member is running a local version of YACS, split team members into subgroups if necessary.

September:

- Make YACS accessible off RPI wifi.
- Ensure the database can hold the base amount of account information and students can create and save accounts.

October:

- Make profile pages usable. Students can view and edit their profile, as well as access saved schedules.

November:

- Make a four year plan feature usable.

December

- Work on goals for next semester, prep for RCOS EXPO

Links:

Link to wireframe for profile page and 4 year plan feature:

<https://www.figma.com/design/T7hXkWf55u5TdKBNMbKQtI/yacs-rebrand?node-id=0-1&t=brKszS6mDOFjPrhq-1>