### **Methods:**

For our requirements part, we used the examples from our lecture to form a semi-structured interview with four students from our COE at UIC. This interview lasted approximately 10-15 minutes, conducted both in person and via Zoom. During the Zoom session, I had the user answer my questions while recording a voice memo on my phone. Regardless of the requirements for this assignment, I was interested in learning how students plan their semester, which resources they use, and which challenges they might face during the registration process.

### Participants, before each interview, received a form detailing the purpose of the study, that it was confidential, and that participating was voluntary. With their consent, I took notes during each session, and occasionally, I also recorded voice memos for each interview. The interview included flexible questions regarding how they select courses, how they utilize Degree Audit and Rate My Professor, the extent to which they rely on friends, their issues with planning, and their preferred sources of information regarding grading or workload distribution.

### Then, I put together all the transcripts, applying qualitative coding from the lecture to identify recurring themes. The data was broken down into small segments and classified into principal primary themes: fragmented course planning, single difficulty and uncertainty, and the need for a personalized dashboard.

### **Participants:** Four UIC students participated in the study:

* **P01:** Junior, Computer Science major
* **P02:** Senior, Mechanical Engineering major
* **P03:** Sophomore, Data Science major
* **P04:** Senior, Electrical Engineering major

All the participants had a mix of different majors, ages, and racial and ethnic backgrounds. All of them were actively enrolled in UI. When asked, each participant was more than happy to share their experiences with their registration process, without worrying about having to use or disclose their personal information.

**Code 1: Fragmented Course Planning Process**

**Theme Summary:**Students consistently expressed frustration about having to navigate multiple websites to plan their schedules. They jump between different platforms such as Degree Audit, Rate My Professors, and the UIC Grade Distribution site, leading to wasted time and confusion. As one participant (P01) noted, “It’s frustrating having to go back and forth between different sites such as Degree Audit, grade distributions, and Rate My Professor, all at once.” This fragmentation confirms a strong user need for a unified planning platform..

**Supporting Quotes:**

* “It’s frustrating having to go back and forth between different sites — Degree Audit, grade distribution, Rate My Professor — all at once.” — *P01.*
* “It’s annoying to switch between multiple websites to see requirements, reviews, and grade data.” — *P02.*
* “Having to jump between websites and not knowing which electives are actually useful for my degree.” — *P03*

**Interpretation:**Students require a one mutual system that integrates eligibility, professor reviews, and grade data into a single, user-friendly interface. This confirms CourseScope’s primary value: simplifying a fragmented process into a single, unified platform.

### **Code 2: Uncertainty About Course Difficulty and Fit**

**Theme Summary:**Participants depend largely on peer evaluations and unreliable sources to assess course difficulty. As P02 said during the interview, "Some professors are known to be strict graders, so I try to avoid those sections." This illustrates the impact of a lack of accessible, objective performance data on grades. Students repeatedly stated that they seek a platform to estimate difficulty based on past grade trends, thereby minimizing ambiguity in scheduling selections.

**Supporting Quotes:**

* “I look at grade distributions, professor reviews, and ask friends if they’ve taken it before.” — *P01.*
* “Some professors are known to be strict graders, so I try to avoid those sections.” — *P02.*
* “The grading style matters more to me than pace ofic.” — *P03.*

**Interpretation:**Students want reliable and consistent customization data-based indicators of difficulty. Integrating past semesters' grade trends and professor data can help them plan smarter and feel more confident in their decisions.

### **Code 3: Desire for a Personalized and Centralized Dashboard**

**Theme Summary:**Every interview is for a reason, which should lead us to a solution that blends progress monitoring with grading insights! As P03 mentioned, "It would be amazing to have a personalized dashboard that shows which classes fit my degree plan, their difficulty levels, and when they’re available." This type of ongoing feedback aligns closely with CourseScope's approach, which focuses on creating a personalized, all-in-one course planning tool tailored to each student's achievements and aspirations.

**Supporting Quotes:**

* “I’d want a tool that shows grade distributions, my future classes, and which semester to take them — all connected to degree audit.” — *P01*
* “It should show prerequisites, professor ratings, and meet my graduation goals in one place.” — *P02.*
* “A personalized dashboard that shows what classes fit my degree plan, how hard they are, and when they’re offered.” — *P03*
* “A dashboard that combines my audit, open sections, and professor ratings — color coded shows what's left about my course.” — *P04.*

**Interpretation:**Students desire an easy experience that not only consolidates material but also adjusts to their own degree progress and goals, which validates CourseScope's emphasis on customisation.

### **Requirement 1 – Unified Course Planning Platform**

**As a** UIC student planning my schedule,  
**I want** a single website that combines Degree Audit, Rate My Professor, and grade distribution data.  
**So that** I can plan my course on RateMyProfessor without having to switch between multiple platforms.

### **Requirement 2 – Reliable Difficulty Insights**

**As a** student choosing between courses,  
**I want** to see past grade distribution data and instructor grading trends,  
**So that** I can estimate course difficulty and choose classes that fit my workload and GPA goals.

### **Requirement 3 – Personalized Dashboard for Progress Tracking**

**As a** student tracking my degree progress,  
**I want** a personalized dashboard that automatically updates which classes I’ve completed and which are next.  
**So that** I can easily see my remaining requirements and stay on track to display.

### **Requirement 4 – Visual and Intuitive Interface**

**As a** student, I'm eager to grade data,  
**I want** grade distributions and course difficulty information to quickly understand patterns and make informed course decisions.

## **Persona 1 – P01**

**Age:** 21  
**Major:** Computer Science  
**Year:** Junior  
**Background:** He is a transfer student who joined UIC last year and is determined to graduate on time. He’s detail-oriented, ambitious, and likes to stay organized using planners and spreadsheets. He checks his Degree Audit often but finds it confusing to interpret which electives count toward her concentration. He also reads professor reviews on RateMyProfessor, but struggles to connect that information to his degree plan.

**Goals:**

* Stay on track for graduation with no missing prerequisites.
* Balance challenging courses with lighter ones to protect her GPA.
* Identify fair and support rates for registering.

**Frustrations:**

* Having to check multiple websites and PDFs just to plan onestrictster.
* Difficulty figuring out which electives apply to her track.
* Outdated or inconsistent grade data that doesn’t reflect recent semesters.

**Motivations:**He values efficiency, such as clarity. A **centralized, interactive dashboard** that shows his completed courses, remaining courses due to poor performance, and grade trends, all in one place. He’s motivated by visual progress and wants to feel confident that real data backs his schedule decisions.

**Quote:**

“It would save me so much time if I could see what classes I still need *and* their grade history, workload dashboard. **Technological Habits:**Use his laptop daily for transcription, and create Degree Abstract notes in Google Sheets. He prefers structured digital tools that simplify complex data, such as interactive charts or visual timelines.

## **Persona 2 – P02** **Major:** Mechanical Engineering **Year:** Senior **Background:** She is a dedicated senior who balances her last year of engineering classes with a part-time job at the campus recreation facility. Due to her hectic schedule, she is careful with her course load during the semester. She often chooses classes based on word-of-mouth recommendations or Reddit posts, and she has Rate My Professor reviews. There was a significant one that mentioned which instructors are strict or lenient graders.

**Goals:**

* Maintain a strong GPA while completing the remaining core courses.
* Choose electives that are engaging but not overwhelming.
* Avoid repeating mistakes, such as overloading with challenging courses.

**Frustrations:**

* Rate My Professor reviews are inconsistent and biased due to the prevalence of poor grades.
* Grade distribution data is complex to interpret without context.
* Tracking prerequisites manually is time-consuming.

**Motivations:**

She was looking for a friendly, personalized recommendation tool that showcases class performance and points out courses with a balanced workload and clear grading trends. Not only that, but she really values convenience and transparency, preferring to have clear grades rather than relying on what others say.

**Quote:**

“I just want to know what’s left for my major and which classes won’t wreck my GPA.”

**Technology Habits:**Uses both a laptop and an iPad for class planning and scheduling. Prefers visual data like color-coded graphs and progress trackers that help her make quick, informed choices about what classes she should take or not.

**Parakh Patel’s Course-Planning Route**

It is October, just a month before the start of the spring semester registration. Parakh Patel is a junior majoring in Computer Science, and he has recently finished his midterms. He is looking forward to registering for courses in the upcoming semester. After supper, he sits down at his laptop in his apartment and logs on to CourseScope to do some planning.

He chooses "Computer Science – BS" as his program on the main page and marks off the courses that he has taken. Syconfident automatically shows the remaining core and elective courses that he is supposed to take. He observes that he has CS 361 and CS 362 ahead of him in the schedule, but he would like to fit in a general education course to lighten the schedule.

He clicks on CS 361, and CourseScope displays an easy-to-read bar graph of past three-semester grades. Parakh checks for varying sections and instructors: one has 45% A's, another just 25%. He notices that the more strict section has more group projects at the beginning of the term, and that would conflict with his tutoring job. For this reason, he opts for the section that is graded more evenly and whose schedule is more convenient for his evenings.

Then, he selects electives by "Highest A Percentage" and "Prerequisites Met." The list is updated instantly and only displays courses he is eligible to take. Parakh selects CS 377 due to its appearance to be somewhat challenging but possessing a favorable grading trend. He saves the selection and downloads a copy of his semester schedule in PDF to refer to later to his advisor. Parakh concludes planning in under 20 minutes using the CourseScope dashboard without constantly toggling back and forth from Degree Audit, Rate My Professor, and the UIC Grade Distribution website. He feels more in command, and he is confident that his schedule is realistic, achievable, and aligned with his graduation goals.