

Blackboard Redesign and Case Study

Leanna Fowler

Let's be real.
Blackboard is not easy to use.

Motivation

Poor design of Blackboard

-- Students struggle to use it efficiently --

Some struggles

1. Clutters and inconveniences
2. Lack of Modern Design
3. Lack of Information Organization
4. Not Intuitive for Selected Pages

The diagram illustrates a user's journey through a course management system. It starts with a 'Course Home Page' on the left, which is heavily cluttered with various tools and links. A large red arrow points from this page to a 'Grades' page on the right, which is much more organized and focused.

Course Home Page (Left):

- Course Home Page
- Announcements
- Syllabus and Schedule
- Learning Modules
- Labs and Projects
- Workshops
- University Policy and Support
- Technology Support and Information
- Library Resources
- Email
- My Grades
- Access to Tools
- Student Support
- Help
- My Groups**
 - Workshop Groups 8

A red arrow labeled "click here" points to the "Access to Tools" link.

Grades Page (Right):

The grades page is titled "Grades" and shows a list of recent courses:

- BCSC170.1.FALL2023ASE**
Child Development (BCSC170.1.FALL2023ASE)
287.5 / 327
Your recently graded work will appear here
[View all work \(22\)](#)
- CSC172.1.SPRING2024ASE**
Data Structures and Algorithms (CSC172.1.SPRING2024)
-- / 100
Recent Grades
Total 2,105.9 / 2,125
[View all work \(29\)](#)
- MATH150.2.FALL2023ASE**
Discrete Mathematics (MATH150.2.FALL2023ASE)
-- / 0
Your recently graded work will appear here
[View all work \(2\)](#)
- FREN101.1.SPRING2024ASE**
Elementary French I (FREN101.1.SPRING2024ASE)
1,034.25 / 1,090
Recent Grades
Weighted Total 95.53%
[?](#)

Text overlays on the left side of the diagram highlight the issues with the course homepage:

- "too much information that is unorganized."
- "Can be difficult to find what you are trying to do."

Text at the bottom right of the diagram suggests a better approach:

This page (Grades) should be more organized
Potentially with folders, where each folder is specified for a term.

ALERT

Attention: IT Issue

Please note: Maintenance on the UR Wireless service on 4/3 requires that users trust the newly generated certificate.

Blackboard News

Blackboard News

Zoom News - With the change to UR Active Directory on Wednesday 1/10, if your Zoom Meeting Manager tool no longer works, please use the new ZOOM Meetings tool instead. How will you know the tool is not working? The message that your email is incorrect will appear as shown below.

Blackboard Help

Common Blackboard Support Issues

Blackboard Help for Faculty and Instructors

Blackboard Help for Students

Check your Browser for Compatibility

Supported Browsers and Versions



Blackboard

About the Blackboard Mobile Application



About the Mobile App

Download from Google Play

Download from the Apple Store

Student Support Services

CARE Network

Title IX Office

University Health Service

University Counseling Center

Health Promotion Office

Office of Residential Life and Housing Services

Campus Maps

Bus Schedules

Parking

Special Software for Installation

Microsoft Office Available Free of Charge to Select Departments

Faculty, staff, and students in select departments can now download the Microsoft Office suite free of charge on up to five devices, either University owned or personally owned. The package includes Microsoft Word, Excel, PowerPoint, Outlook, and OneNote for Windows or Mac. It is available to all faculty, staff, and students in AS&E, Eastman School, Simon School, and Warner School, as well as staff with River Campus Libraries, the Center for Integrated Research Computing, and University IT. For more information, visit the [University IT website](#).

Other Software

There is a wide variety of software available for course and research work. These tools are either licensed to the university via an active network connection or are freely available. Students and researchers can install this software on their own computers or local machines. Links to these tools and install instructions can be found at [ECM Student Software](#).

For software that requires one time license keys or special install packages specific to the University of Rochester, special installation instructions are found below. For ones that require special installation see below.

ASE Course Planning Links



Course Descriptions and Course Schedules

Cluster Planning

Review your Academic Progress in UR Student

Access UR Student

Register for Classes within UR Student (during Open Registration)

ASE Syllabus Repository

Arts, Sciences, and Engineering Syllabus Repository Helps with Course Planning: Syllabi from previously taught courses, starting with fall 2014, are available, helping you make informed decisions regarding course enrollment.

Please note that you will not find all courses represented, just ones that were available in Blackboard during the given semester. This repository will be updated about mid-way through each semester.

[Explore Available ASE Syllabi](#)

Search courses: To learn more about specific classes, you can also use the **Search Collection** box below. Here you can search classes by faculty last name or by course number. Be sure not to add spaces to course numbers. For instance, you would search for "BIO110" not "BIO 110".

Visually unappealing
and very cluttered

I wanted to see if others feel the same way!

SURVEYS

Surveying and Researching

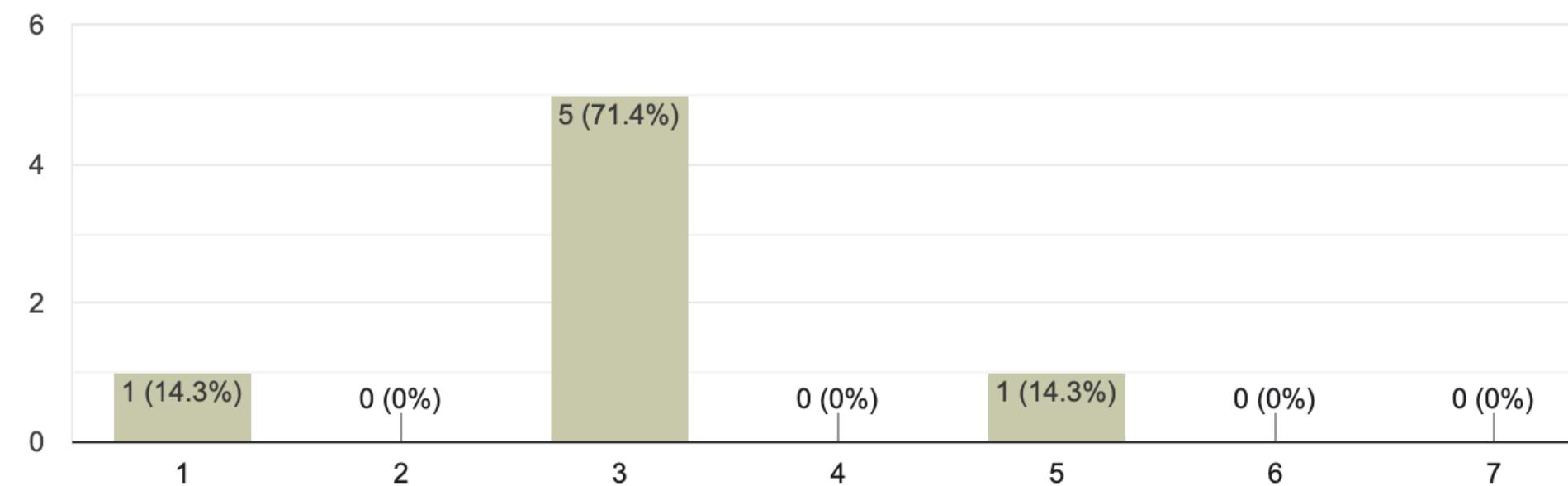
I released a survey, welcoming students to fill in their opinions regarding Blackboard.

I got a sample of 7 people.

SURVEY RESULTS

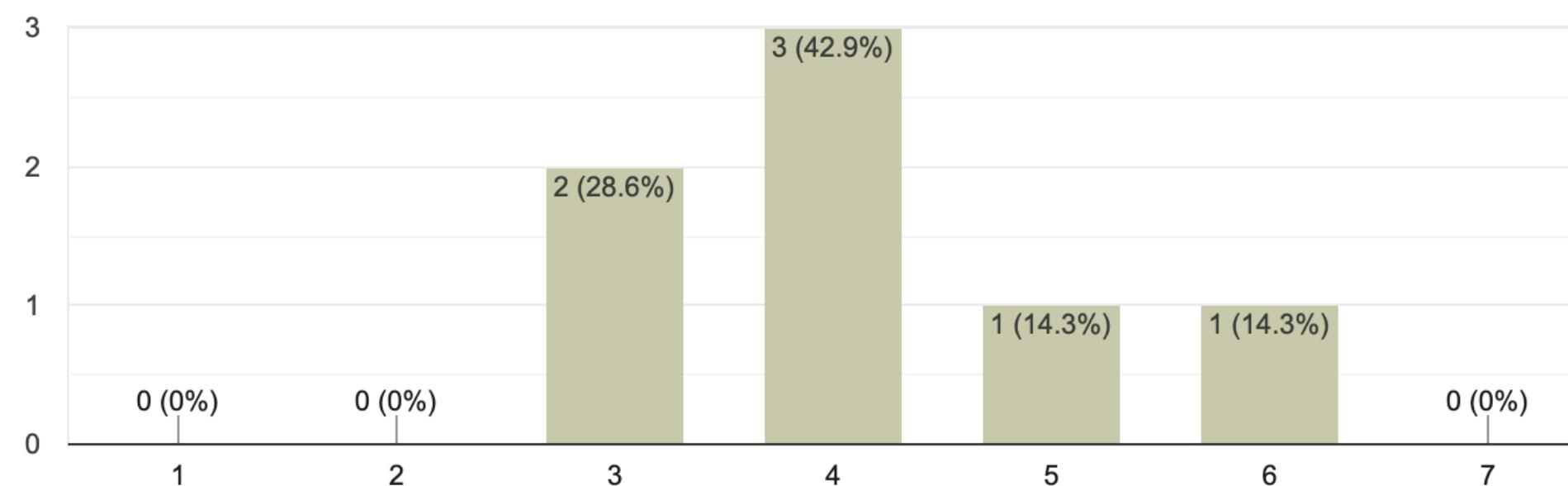
How would you rate your overall experience with Blackboard?

7 responses



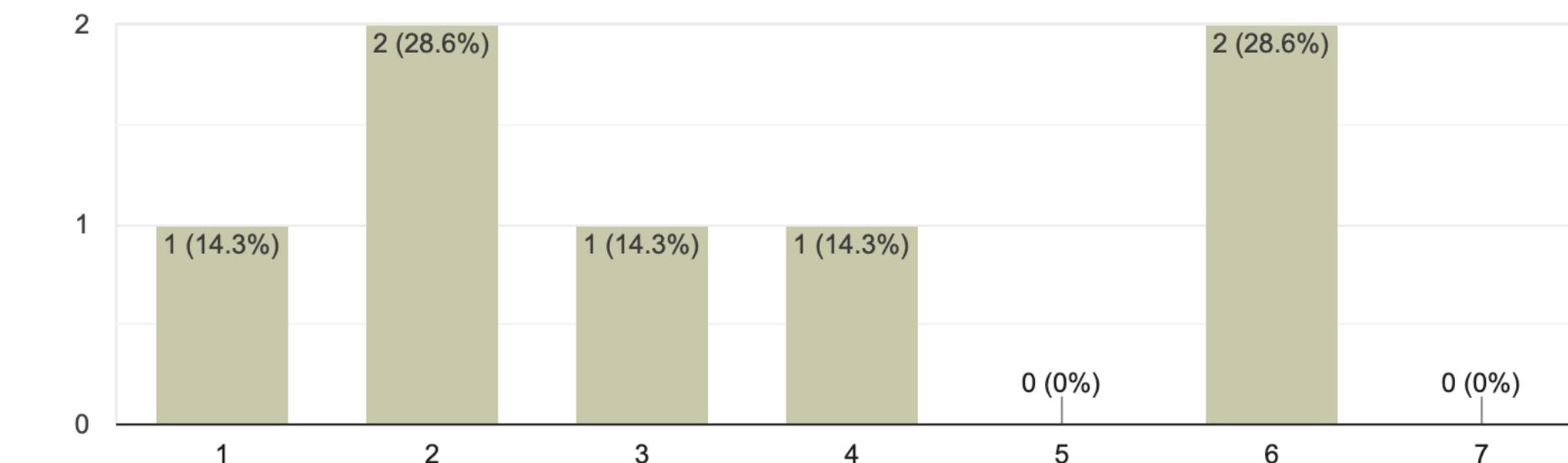
How easy is it to navigate through Blackboard?

7 responses



How intuitive do you find the user interface of Blackboard?

7 responses



SURVEY RESULTS

For any of the questions above, feel free to explain your answers and why you feel that way.

3 responses

About the personalized dashboard- sure it might be a useful tool for some people since everyone might want to prioritize separate things but to some it could be another mental block to have to customize. I think it would be a great feature but shouldn't be required

MY LOVE FOR YOU LEANNA EQUALS MY ABSOLUTE HATRED FOR BLACKBOARD (infinity)

I feel like it depends on the professor in many cases, but BB could be organized better - maybe less subjectively - so all profs intuitively put similar lecture materials in the same area. For example, some profs create a "lectures" section while others put the lectures in the "course materials"

What features or tools do you think are missing from Blackboard that would improve your experience?

4 responses

I'm not really sure, the organization is just a bit cluttered I feel

a to do section that shows upcoming due dates

They have everything, you just can't find half of it

I would LOVE if it could calculate my GPA. Also maybe a way to take notes on slides directly on BB

Yep, majority of students have opinions towards
Blackboard's website.

What about some public opinions?

https://www.reddit.com/r/Professors/comments/12fcjn0/why_is_blackboard_so_userunfriendly/



profmoxie • 1y ago

It's terrible. It takes 30 clicks to do anything. Nothing is in the same place-- all the details for one assignment or test are in 4 different places. None of the buttons or links are intuitive. It's bloated and a UX designer would have to scrap the entire thing and start from scratch.

I used Schoology for years and LOVE it. It did everything I needed and the grading was much more intuitive. Then COVID hit and suddenly we were required to use Blackboard so students had everything in one place. Now our alert system (Starfish) takes info and attendance from Blackboard so I'm even more forced to use it than before. And my school just renewed the contract with them-- never even considered anything else.

[https://www.reddit.com/r/Professors/
comments/sdjhu7/i_hate_blackboard/](https://www.reddit.com/r/Professors/comments/sdjhu7/i_hate_blackboard/)

 **SoundOfLaughter** • 2y ago

I feel like one of the lucky ones. CS Professor here. I've written multiple scripts to work around the worst aspects of Blackboard. I can't imagine having to suffer with Blackboard without being able to program around it.

(-)  11   Reply  Award  Share ...

 **meta-cognizant** • 2y ago

Does Blackboard have an API?

(-)  5   Reply  Award  Share ...

 **SoundOfLaughter** • 2y ago

Not that I'm aware of. My scripts are a sort of pre- or post-processing of a Blackboard activity. Examples:

- Assignment file download is atrocious. You get a zipfile of horribly mangled filenames. The script creates a directory for each student, and places each file in its appropriate place with the original student-submitted filenames.
- I like to post announcements summarizing what I covered for the day, including the files that I create during class. It's death by a thousand clicks to attach half a dozen files to an announcement, so I have a script that bundles up the day's files in a well-formatted zipfile that I upload/unzip in Blackboard's content area. The script also builds out the HTML for the attachments so a simple copy/paste operation properly links all of my file attachments in the announcement.
- Using Blackboard's interface for building assignment descriptions (and content generally) is tedious and nonportable, so I've been building weekly content using Markdown, rendering in html, and uploading the entirety into Blackboard's content area. Then having simple links to the material from Blackboard.
- Manipulating the "work offline" downloadable CSV grading columns to minimize my interaction with Blackboard while grading, etc.

(-)  5   Reply  Award  Share ...

Let's get into designing!!

LOW-FID

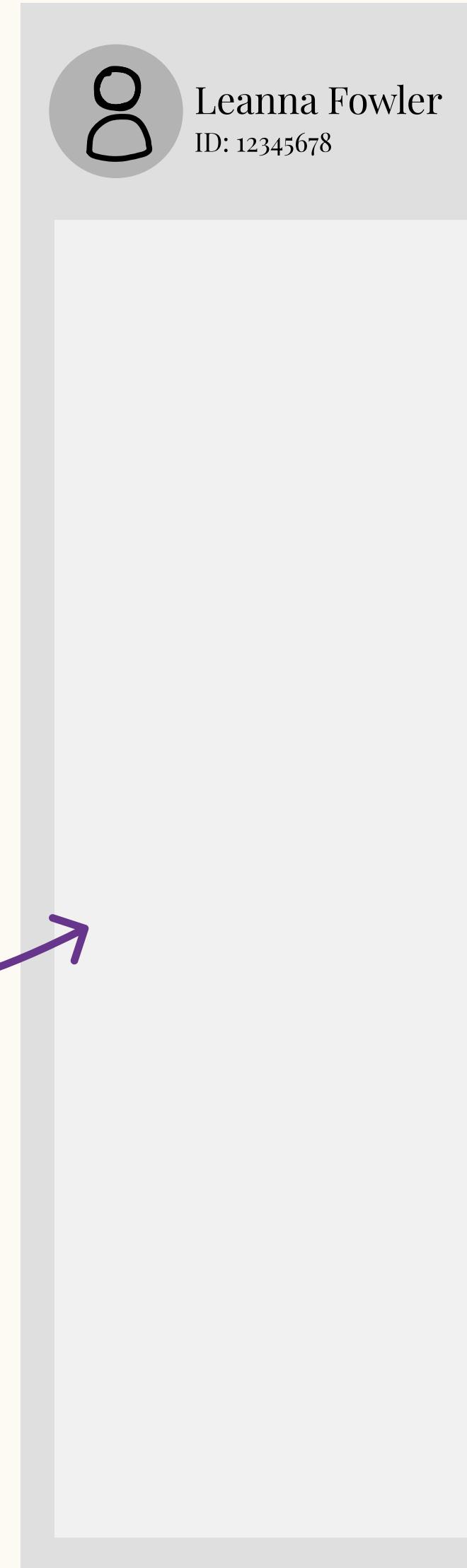
Low-Fidelity Sketches

LOW-FID

First Attempt

LOW-FID → FIRST ATTEMPT

LANDING PAGE



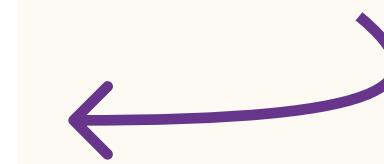
Side navigation



The "My Courses" section displays five course cards: PSYC 101, MATH 161, BIO 101, CHEM 131, and WRTG 105. A "See all" link is located in the top right corner. A purple arrow points from the text "Top section for all current classes" to the top row of course cards.

The "To Do List" section shows two columns of tasks: "Today" and "1/11/24". Each column contains several dark grey horizontal bars representing tasks. A red progress bar is visible at the bottom left of the "Today" section. A purple arrow points from the text "Horizontal scroll view for to do's" to the right edge of the "1/11/24" column.

Top section for all current classes



Horizontal scroll view for to do's



Didn't like it. Why?

A few reasons:

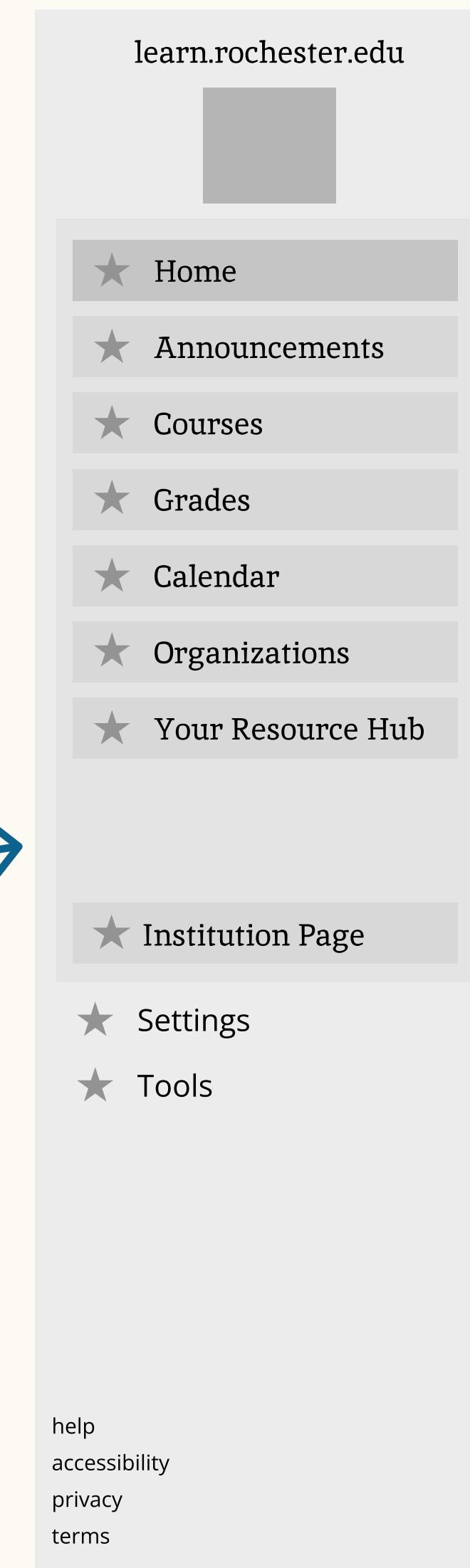
- Not easy to use -- inspired by mobile designs
- No top navigation bar
- If left like this, the page gets too long with overloading content
- Scroll bar for to do list is not easy to use on laptops

LOW-FID

Second Attempt

LOW-FID → SECOND ATTEMPT

LANDING PAGE



Side navigation



The main dashboard has a light gray background. At the top, it displays the date "Today is September 18, 2024" and a welcome message "Welcome, FirstN LastN !".

Courses (5)

Under the course section, there are four colored cards (purple, green, blue, yellow) representing different courses. A blue arrow points to the blue card, which is labeled "current courses". Below the cards is a "more (1) ▾" button.

Announcements

This section lists three announcements from "Course Name (CODE 123)". Each announcement includes a timestamp ("Today, 10:02 AM"), a "view details" button, and a small circular icon with a number (e.g., 2, 1, 1). The announcements are:

- Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit...
- ✓ Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit...
- ✓ Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit...

Below the announcements is a "Recent Activity" section, which shows a single item from "Course Name (CODE 123)" with a timestamp of "Today, 10:02 AM" and a "view details" button.

Upcoming

This section lists three upcoming assignments, each with a color-coded header (green, purple, blue) and a "view all" button. The assignments are:

- Assignment Name Due: 09/30/2024 CODE 123
- Assignment Name Due: 09/30/2024 CODE 123
- Assignment Name Due: 09/30/2024 CODE 123

To do

This section lists four tasks with checkboxes, edit buttons, and small circular icons. The tasks are:

- finish hw - CODE 123 (green)
- Take notes for ch 3 (purple)
- finish wrks 3.4 (purple)
- research 2 topics (yellow)

Top navigation for profile and more

Upcoming assignments

To do's

Why I think this works

A few reasons:

- It's like a central hub
- Easy on the eyes
- Organized
- Implemented to-do list for task management
- Colour coded courses

BEFORE

The screenshot shows the current state of the LMS interface. At the top left is a user profile for Leanna Fowler (ID: 12345678). Below it is a "My Courses" section for Fall 2024, listing PSYC 101, MATH 161, BIO 101, CHEM 131, and WRTG 105, with a "See all" link. The main area features a "To Do List" for Today and 1/11/24, each containing several dark grey rectangular items. A red button is at the bottom of the list.

AFTER

The proposed interface features a sidebar on the left with links to Home, Announcements, Courses, Grades, Calendar, Organizations, Your Resource Hub, Institution Page, Settings, and Tools. The main content area starts with a header showing the date (September 18, 2024) and a welcome message. It includes sections for "Courses (5)" (with colored bars), "Announcements" (with course names and due dates), "Recent Activity" (with course names and due dates), and "Upcoming" assignments. The "Upcoming" section lists three assignments with due dates of 09/30/2024 and codes CODE 123, CODE 123, and CODE 123 respectively. The "Recent Activity" section shows one activity from today.

LOW-FID OF OTHER PAGES

Implementation of other pages

learn.rochester.edu

Today is September 18, 2024

Announcements Fall 2024 All ▾

Today

- Course Name (CODE 123) Today, 10:02 AM view details
○ Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit...
- Course Name (CODE 123) Today, 10:02 AM view details
✓ Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit...
- Course Name (CODE 123) Today, 10:02 AM view details
○ Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit...
- Course Name (CODE 123) Today, 10:02 AM view details
✓ Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit...
- Course Name (CODE 123) Today, 10:02 AM view details
○ Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit...

Earlier

- Course Name (CODE 123) 09/17/24, 3:17 PM view details
○ Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit...
- Course Name (CODE 123) 09/17/24, 11:48 AM view details
✓ Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit...
- Course Name (CODE 123) 09/16/24, 9:22 AM

help
accessibility
privacy
terms

learn.rochester.edu

Today is September 18, 2024

Courses Fall 2024 All Today Only Current Term ▾

Fall 2024

- Course Name (CODE 123) >
Instructor: Professor Name
Meeting Pattern: TR 12:30PM - 1:15PM
- Course Name (CODE 123) >
Instructor: Professor Name
Meeting Pattern: TR 12:30PM - 1:15PM
- Course Name (CODE 123) >
Instructor: Professor Name
Meeting Pattern: TR 12:30PM - 1:15PM
- Course Name (CODE 123) >
Instructor: Professor Name
Meeting Pattern: TR 12:30PM - 1:15PM
- Course Name (CODE 123) >
Instructor: Professor Name
Meeting Pattern: TR 12:30PM - 1:15PM

help
accessibility
privacy
terms

learn.rochester.edu



Welcome to University of Rochester

Announcements

ATTENTION
Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit will be shut down momentarily for....

Message expires on 9/28/2024

view details

Institution Resources

Greene Center JobLink Financial Aid & Scholarships CDCS UR Student (Workday)

Greene Center JobLink Financial Aid & Scholarships CDCS UR Student (Workday)

Academic Resources

UR Student Libraries Academic Materials
Academic Calendars Academic Feedback Syllabus Repository

help accessibility privacy terms

learn.rochester.edu

Today is September 18, 2024

Announcements

Courses

Grades

Calendar

Organizations

Your Resource Hub

Institution Page

Settings Tools

help accessibility privacy terms

Today is September 18, 2024

< Courses

CODE 123 FALL 2024
Course Name

Content Announcements Modules Discussion Grades

Content has unseen content seen content

Syllabus and Calendar Frequently Asked Questions

Unit 1 Unit 2 Unit 3 Unit 4

Faculty and Team

Professor Name Instructor TA Name 1 Graduate TA TA Name 2 Undergraduate TA

more details

Course Details and More

Roster Attendance Groups

learn.rochester.edu

Today is September 18, 2024

Home Announcements Courses Grades Calendar Organizations Your Resource Hub

Institution Page Settings Tools

help accessibility privacy terms

< Back Notes Mode

CODE 123 FALL 2024
Course Name

Content Announcements Modules Discussion Grades

Lecture 1 Notes Mode

Notes

Slide 1

Arial 00+ B I U S A

Slide 1 of 5

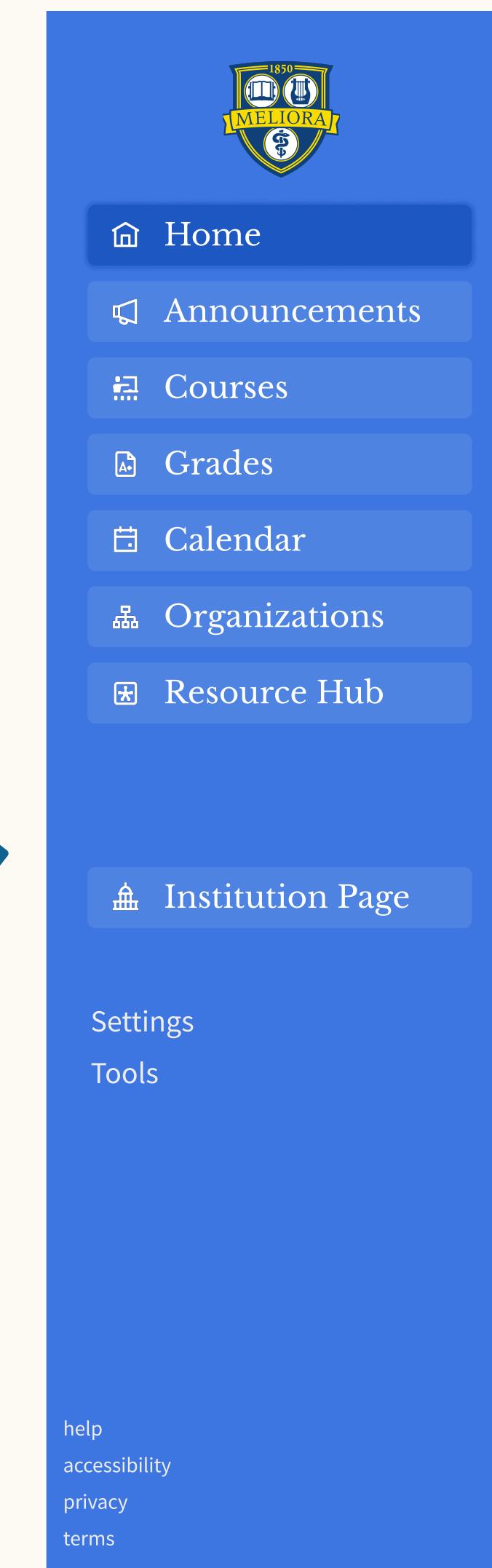
High-Fidelity Sketches

What I focused on:

- Stylizing the low-fid and consistent themes
- Final tweaks on certain components for better usability and legibility
- Improve organization - more concise components in Figma

HIGH-FID

LANDING PAGE



Side navigation

The main dashboard shows a top bar with the date 'September 18, 2024' and a greeting 'Hello, FirstN LastN!'. It includes icons for messaging, notifications, and profile. Below are sections for 'Courses' (with four cards and a 'View All (5)' button), 'Announcements' (with three items from 'Course Name (CODE 123)' and a 'details >' button), and 'Recent Activity' (with two items from 'Course Name (CODE 123)' and a 'details >' button). A '3 of 5' indicator is at the bottom right of the announcements section.

This panel contains two sections. The 'Upcoming' section lists three assignments due on '09/30/2024' with codes 'CODE 123' and a 'details >' button. The 'To do' section lists six tasks for 'Tomorrow' with a 'details >' button next to each.

Top navigation for profile and more

Upcoming assignments

To do's

BEFORE

The screenshot shows the original layout of the learn.rochester.edu homepage. At the top right, there's a user profile placeholder. Below it, a banner displays the date "Today is September 18, 2024" and a welcome message "Welcome, FirstN LastN!". The main content area is divided into several sections: "Courses (5)" with colored cards, "Upcoming" assignments with due dates and codes, "Announcements" with course names and descriptions, "To do" tasks with checkboxes, and "Recent Activity". A sidebar on the left contains links like Home, Announcements, Courses, Grades, Calendar, Organizations, and Your Resource Hub, along with "Institution Page" and "Settings" sections. At the bottom left, there are links for help, accessibility, privacy, and terms.

AFTER

The screenshot shows the updated layout of the learn.rochester.edu homepage. The header now includes a logo, the date "September 18, 2024", a welcome message "Hello, FirstN LastN!", and notification icons for email, messages, and user status. The main content is organized into large, rounded rectangular cards. The "Courses" section has four blue cards. The "Upcoming" section has three blue cards. The "Announcements" section has three blue cards. The "To do" section has four blue cards. The "Recent Activity" section has two blue cards. The sidebar on the left is simplified, featuring a "Home" button and a "Institution Page" button. At the bottom left, there are links for help, accessibility, privacy, and terms.

LOW-FID OF OTHER PAGES

Implementation of other pages

The Announcements page displays a list of announcements for the current term. At the top right, there are icons for messaging, notifications, and user profile. A dropdown menu labeled "All" is shown. The main content area is divided into "Today" and "Earlier" sections. Each announcement card includes the course name, a brief description, the date, and a "details" button.

September 18, 2024
Hello, FirstN LastN !
Announcements Fall 2024
All ▾

Today

Course Name (CODE 123)
Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit...
Today, 10:02 AM details ➤

Course Name (CODE 123)
Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit...
Today, 10:02 AM details ➤

Course Name (CODE 123)
Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit...
Today, 10:02 AM details ➤

Course Name (CODE 123)
Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit...
Today, 10:02 AM details ➤

Course Name (CODE 123)
Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit...
Today, 10:02 AM details ➤

Course Name (CODE 123)
Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit...
Today, 10:02 AM details ➤

Earlier

Course Name (CODE 123)
Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit...
Today, 10:02 AM details ➤

Course Name (CODE 123)
Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit...
Today, 10:02 AM details ➤

Course Name (CODE 123)
Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit...
Today, 10:02 AM details ➤

The Courses page lists courses for the Fall 2024 term. At the top right, there are buttons for "Today Only" and "Current Term". The main content area shows course cards with the course name, instructor, meeting pattern, and a "details" button.

September 18, 2024
Hello, FirstN LastN !
Courses Fall 2024
Today Only Current Term ▾

Fall 2024

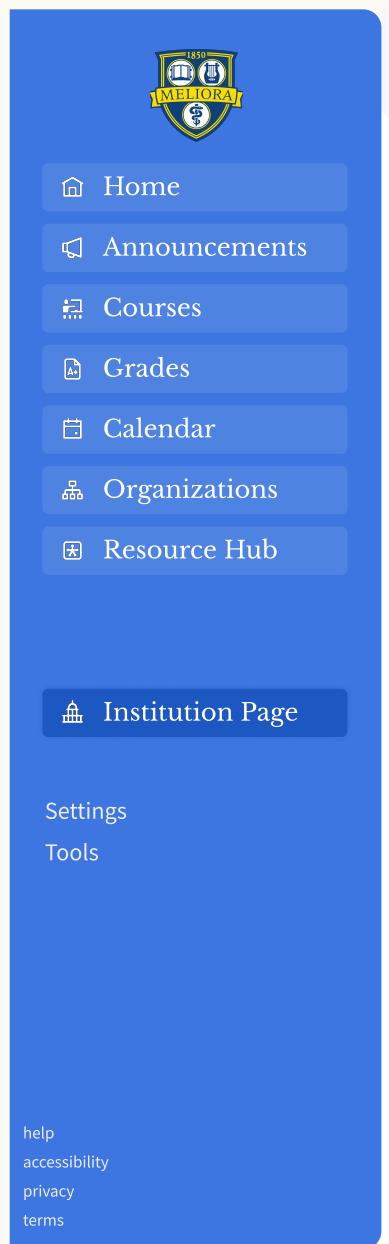
Course Name (CODE 123)
Instructor: Professor Name
Meeting Pattern: TR 12:30PM - 1:15PM
➤

Course Name (CODE 123)
Instructor: Professor Name
Meeting Pattern: TR 12:30PM - 1:15PM
➤

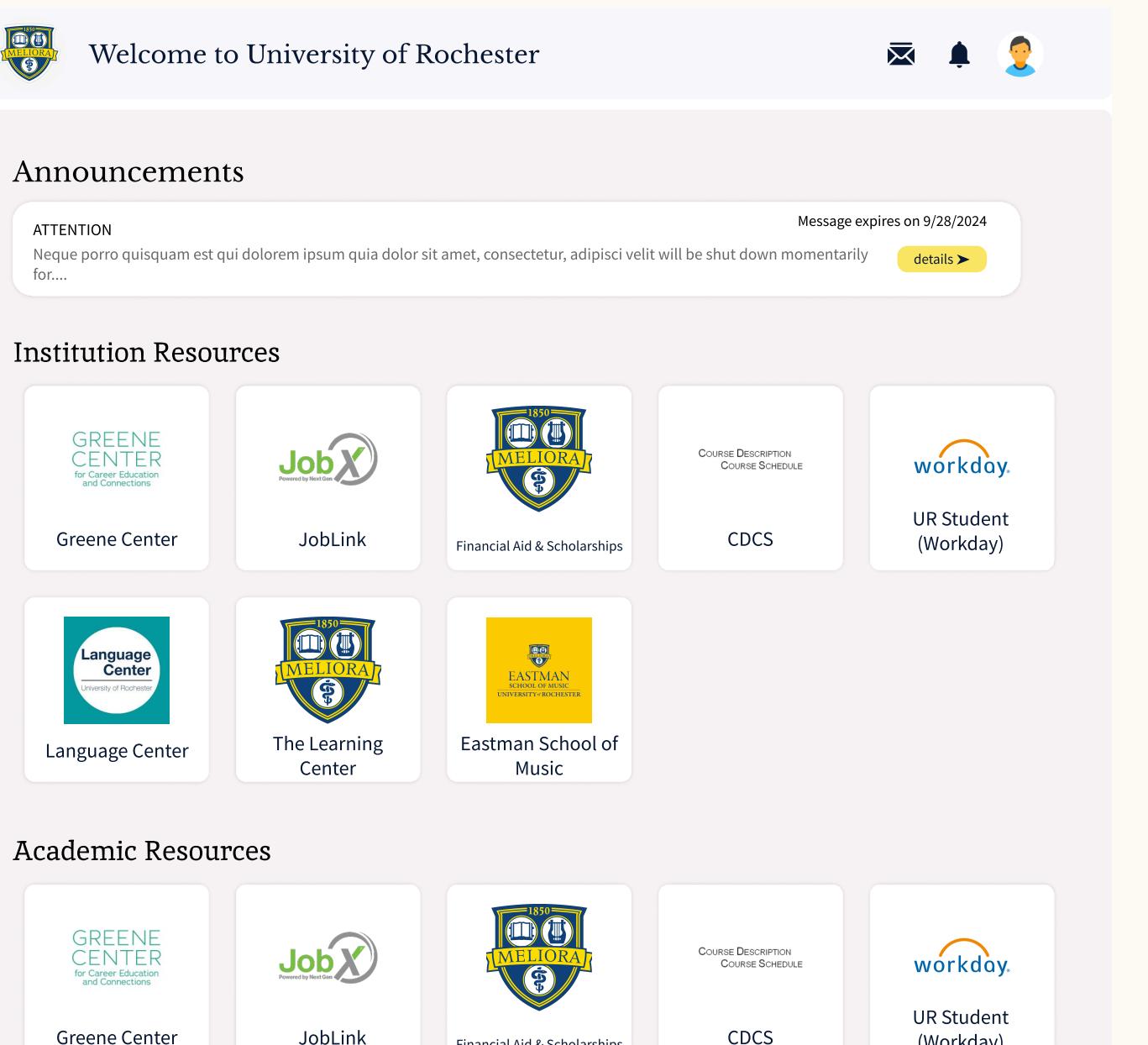
Course Name (CODE 123)
Instructor: Professor Name
Meeting Pattern: TR 12:30PM - 1:15PM
➤

Course Name (CODE 123)
Instructor: Professor Name
Meeting Pattern: TR 12:30PM - 1:15PM
➤

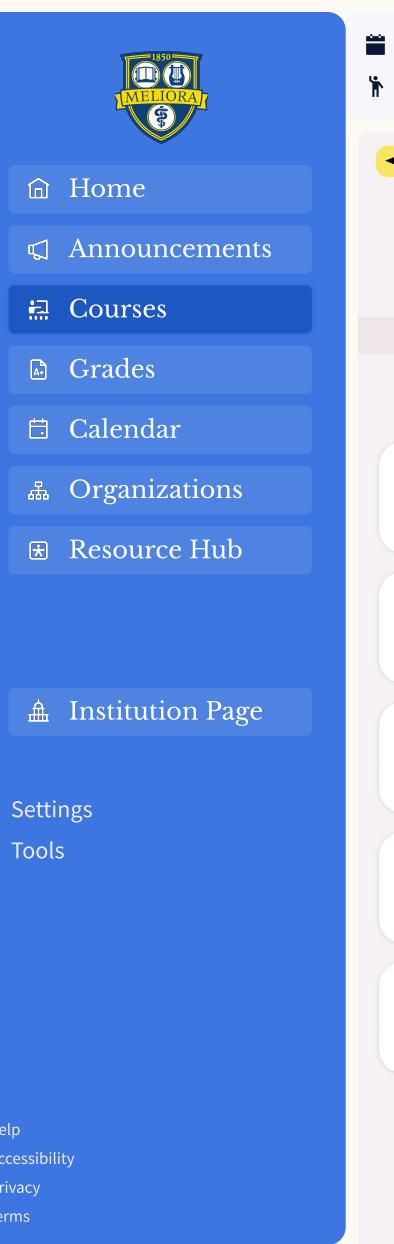
Course Name (CODE 123)
Instructor: Professor Name
Meeting Pattern: TR 12:30PM - 1:15PM
➤



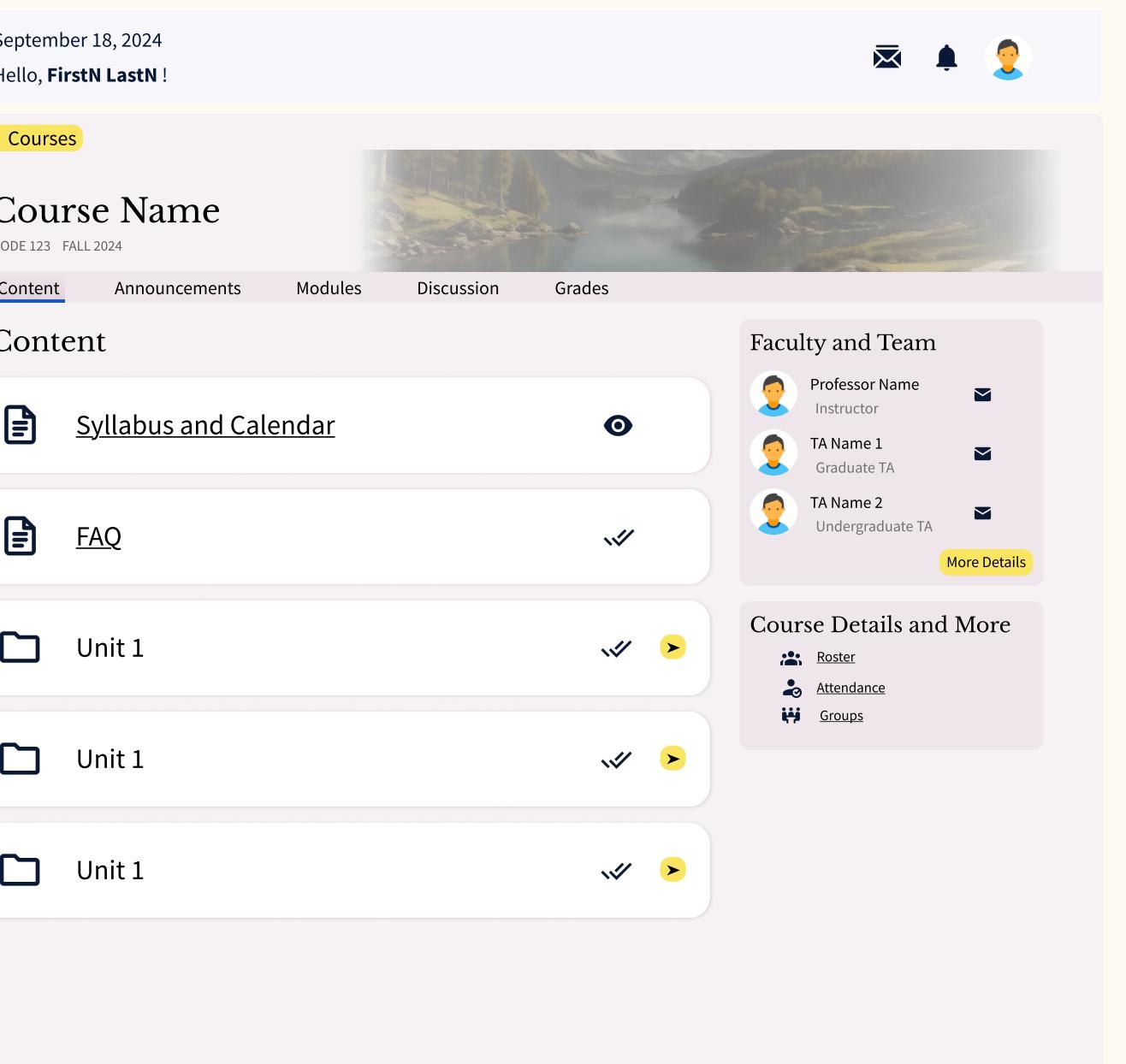
The University of Rochester Home page features a blue sidebar on the left with the school's crest and navigation links: Home, Announcements, Courses, Grades, Calendar, Organizations, Resource Hub, and Institution Page. Below the sidebar are links for help, accessibility, privacy, and terms. The main content area includes a banner for 'Welcome to University of Rochester' with a message about system shutdowns, followed by sections for 'Institution Resources' (Greene Center, JobLink, Financial Aid & Scholarships, CDCS, UR Student Workday) and 'Academic Resources' (Greene Center, JobLink, Financial Aid & Scholarships, CDCS, UR Student Workday).



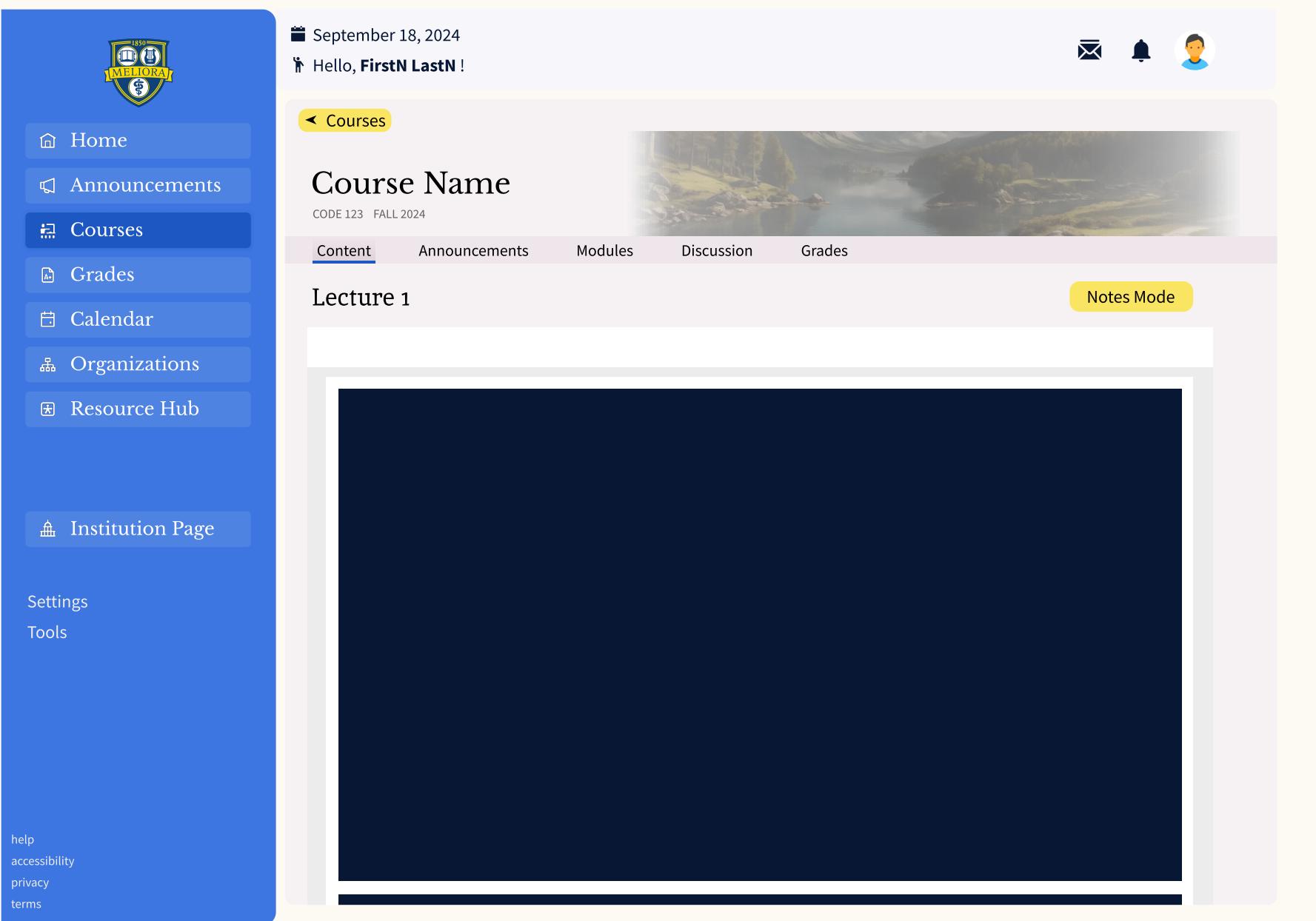
The Announcements page shows a banner for 'Welcome to University of Rochester' with a message about system shutdowns. It features a section titled 'Announcements' with an 'ATTENTION' message: 'Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit will be shut down momentarily' with a 'details >' button. Below this are sections for 'Institution Resources' (Greene Center, JobLink, Financial Aid & Scholarships, CDCS, UR Student Workday) and 'Academic Resources' (Greene Center, JobLink, Financial Aid & Scholarships, CDCS, UR Student Workday).



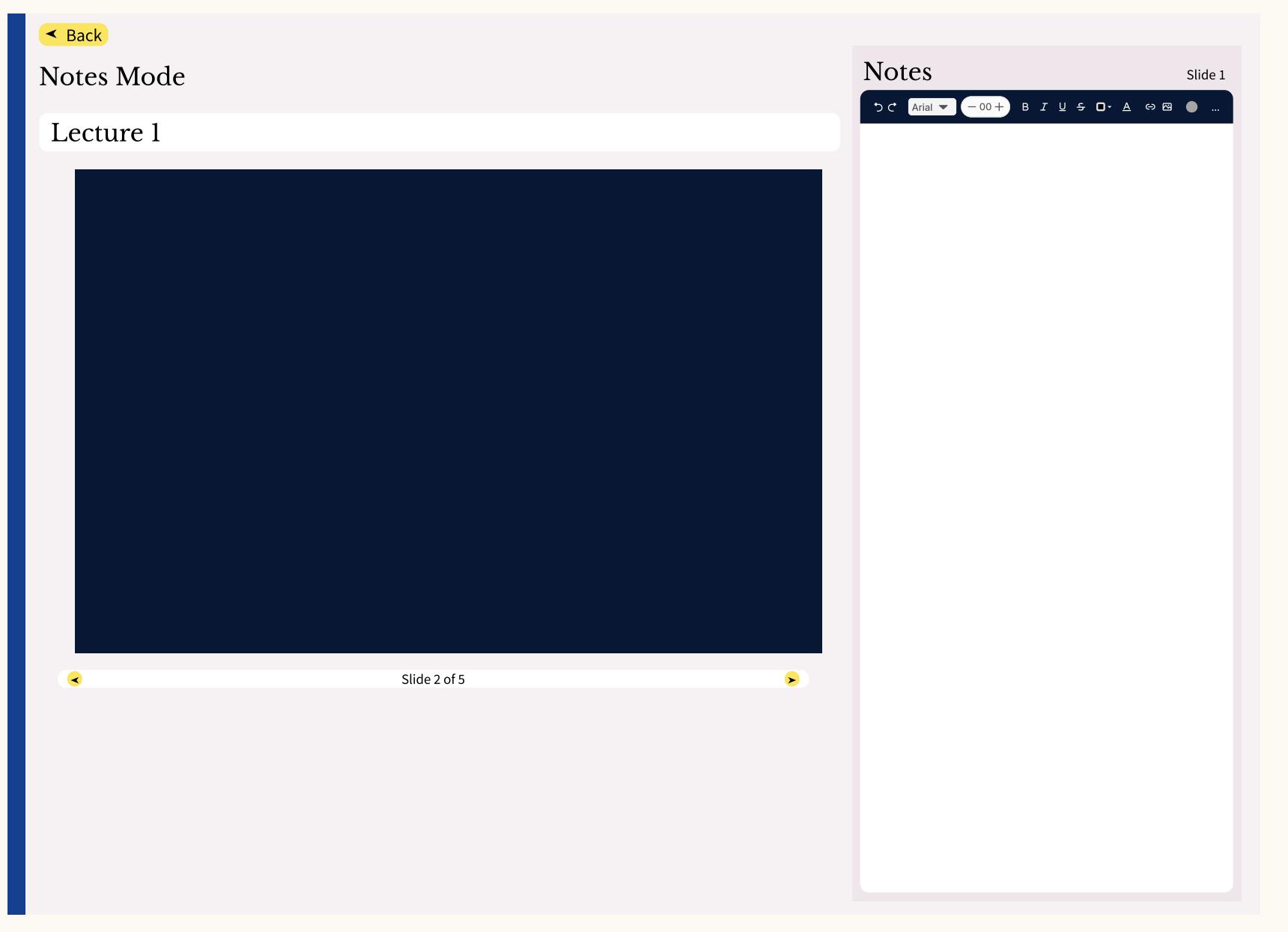
The Courses page shows a banner for 'September 18, 2024' and a greeting 'Hello, FirstN LastN!'. It features a 'Courses' section with a 'Content' tab selected, showing a list of course modules: Unit 1, Unit 1, Unit 1. To the right, there are sections for 'Faculty and Team' (Professor Name, Instructor, TA Name 1, Graduate TA, TA Name 2, Undergraduate TA), 'Course Details and More' (Roster, Attendance, Groups), and 'Content' (Syllabus and Calendar, FAQ).



The Notes Mode page shows a banner for 'September 18, 2024' and a greeting 'Hello, FirstN LastN!'. It features a 'Courses' section with a 'Content' tab selected, showing a list of course modules: Lecture 1, Notes Mode. To the right, there is a 'Notes' section with a slide viewer showing 'Slide 1' and 'Slide 2 of 5'.



The Course page shows a banner for 'September 18, 2024' and a greeting 'Hello, FirstN LastN!'. It features a 'Courses' section with a 'Content' tab selected, showing a list of course modules: Lecture 1, Notes Mode. The main content area displays a large dark rectangular placeholder for course content.



The Notes Mode page shows a banner for 'September 18, 2024' and a greeting 'Hello, FirstN LastN!'. It features a 'Courses' section with a 'Content' tab selected, showing a list of course modules: Lecture 1, Notes Mode. To the right, there is a 'Notes' section with a slide viewer showing 'Slide 1' and 'Slide 2 of 5'.

PROTOTYPE

Final Prototype ↵

What to take away from this project?

SUMMARY

Take away points from my redesign

- Focused on improving the usability and organization of Blackboard
- Extra features like sorting classes to all or day specific, todo list, and note taking directly from the slides
- Organized central hub for institution resources
- Organized central hub for student's classes and announcements
- Modern design approach

SUMMARY

Future steps

- Further implement other pages like Grades and Calendar
- Conduct user feedback surveys and demos for feedback