

Milestone 3

A. User Experience Requirements

1. User Stories

1. As a student I want to access lecture videos so that I can review topics I may have missed.
2. As a student, I want to discuss lecture material with my peers so that I can better understand the class content.
3. As a student, I want to access lecture notes so that I can see what material was covered in class.
4. As a professor, I want to access and view my students' discussions and questions so that I can provide good feedback and assistance.
5. As a professor, I want to upload videos and other class content so that it is accessible to all students enrolled in the course.

2. Relevant user stories

All of the user stories identified in part 1 are relevant to our proposed solution. Since we are looking to combine the functionalities of 3 products (Piazza, GroupMe, Zoom) that already exist into one element of eLC, the provided justification for the user stories is drawn from these successful platforms.

Zoom:

User stories one and five show the need for a student to access recorded lecture videos. This feature was popular with the successful video platform Zoom, which was used in over 90,000 schools at the height of the COVID-19 pandemic (Iqbal). By allowing the professor to upload videos onto elc in the new dashboard, students will easily be able to access it, along with the knowledge that the video was posted in a secure and controlled environment. This functionality is important because there is concern in the area of student security. According to Sonja Eiseman of Barnard College, students should be informed of what is being recorded, that the recordings will not be shared outside of the class, and that the recordings will be posted in a secure environment (Eiseman). As of now, Zoom lectures can be downloaded from zoom and accessed by a link secure access key provided from the video session admin. This presents hurdles and may hinder usage. By including recorded lectures directly into elc, there is more accessibility to watching videos.

Eiseman, Sonja. "A Student's Perspective: A Guide to Best Practices for Zoom Recordings." *A Student's Perspective: A Guide to Best Practices for Zoom Recordings* | Barnard College, Barnard College, <https://barnard.edu/students-perspective-guide-best-practices-zoom-recordings>.

Iqbal, Mansoor. "Zoom Revenue and Usage Statistics (2022)." *Business of Apps*, 3 Mar. 2022, <https://www.businessofapps.com/data/zoom-statistics/>.

Piazza

User stories 2, 3, 4 are all related to Piazza because they contain a discussion board format. The following quotes demonstrate the importance of the Piazza platform and online discussions in learning.

“Piazza course enrollments increased by more than four times in 2020 than that of the previous year, and time a student spends on the platform jumped to an average of 4.5 hours a day. Post views on the Piazza platform exceeded 1.2 billion in 2020. Thirty thousand new classes have been added to the platform since the pandemic hit in March of 2020...Piazza has been used by more than 5 million students and over 100,000 professors from 2,000 schools in 90 countries worldwide, and instruction has expanded from STEM to all disciplines.” (“Leading Colleges and Universities across the U.S. Select the Piazza Q&a Platform for Enhanced Virtual Learning Experiences”).

“Many of the students who ask questions on Piazza just wouldn't get the opportunity to ask them otherwise...I post homework assignments, lecture slides, demonstration code, all that stuff on Piazza, and answer students' questions. It really has been a big change in terms of organization...The great thing about Piazza is it's very light, very text-based. And the students found it very easy to understand and to use”(“Professor Success Stories”).

The Business Wire article justifies the immense reach that Piazza has in a classroom setting. During the pandemic, its importance soared with thirty thousand new classes added with an average of 1.2 billion posts throughout 2020. What is especially interesting is that non-STEM classes realized the capabilities of and started using the platform as well during the pandemic. This highlights that discussion capabilities are important in all fields. The platform now has five million students and over one hundred thousand professors from ninety different countries worldwide that are using this platform. It is clear to see that with this many users, the ability to discuss classroom topics in one central place is extremely valuable.

We can see the effectiveness of this platform from teachers' reviews as well. There are numerous reviews ranging from Computer Science to History teachers, on their experiences using Piazza on the Piazza website. They all seem to have similar experiences in which the ease of discussion capabilities as well as the organizational tools have positively affected their classroom.

“Leading Colleges and Universities across the U.S. Select the Piazza Q&A Platform for Enhanced Virtual Learning Experiences.” Business Wire, 26 Jan. 2021, <https://www.businesswire.com/news/home/20210126005439/en/Leading-Colleges-and-Universities-Across-the-U.S.-Select-the-Piazza-QA-Platform-for-Enhanced-Virtual-Learning-Experiences#:~:text=Piazza%20has%20been%20used%20by.license%2C%20visit%20our%20license%20page>.

Piazza • Ask. Answer. Explore. Whenever. <https://piazza.com/professors>.

GroupMe

User stories 2 and 4 are both related to discussions and questions between students and professors. Our proposed solution provides a similar functionality to GroupMe, allowing students to ask questions and discuss the lecture material with their peers as well as their professors. What our solution provides that GroupMe does not is a professor-moderated discussion atmosphere.

GroupMe is used frequently by college students and is highly popular. In the U.S, it is one of the more popular free instant messengers available, having over 10 million active users (Ivanova). However, a major drawback is that it does not provide moderated discussions. It is a breeding ground for cheating and academic dishonesty due to the lack of professor moderation. One instance is given below.

"This fall, University of Texas at Austin student Caleb Cox joined a group for his anthropology class on the messaging app GroupMe. He asked his peers if he should study the introduction slides for the exam. A few weeks later, he was called into the dean's office for violating academic dishonesty policies. Now Cox, along with 70 other students who participated in the GroupMe chat, have been given failing grades in the course and academic probation until next spring." (Cohen).

Our proposed solution would avoid situations like this happening, as professors are involved in student discussions through eLC. Questions and discussions could be moderated by the professor and ensure that students don't accidentally, or purposefully, violate the university's academic dishonesty policies.

Ivanova, Loren. "GroupMe Review: A Team Chat Made for Friends - BROSIX." Brosix, 10 Feb. 2021, www.brosix.com/blog/groupme-review/. Accessed 24 Mar. 2022.

Cohen, Libby. "Is It Cheating to Use GroupMe for College Classes?" The Daily Dot, 26 Nov. 2019, www.dailydot.com/irl/groupme-cheating-college/. Accessed 24 Mar. 2022.

B. Ideation and Preliminary Designs

1. Mural Canvas of design solution ideas

User Story 1	User Story 2	User Story 3	User Story 4	User Story 5
As a student I want to access lecture videos so that I can review topics I may have missed.	As a student, I want to discuss lecture material with my peers so that I can better understand the class content.	As a student, I want to access lecture notes so that I can see what material was covered in class.	As a professor, I want to access and view my students' discussions and questions so that I can provide good feedback and assistance.	As a professor, I want to upload videos and other class content so that it is accessible to all students enrolled in the course.
Add a new tab specifically for lecture videos/ recordings.	Have a discussion board underneath each topic section	Add lecture notes alongside corresponding slides	create a professor's view which compiles student's questions by priority and time constraints	Let professors add a new tab specifically for lecture videos, where the videos can be sorted by content
Have a Video section nested in the Contents folder for each chapter	Allow instructors to view slides underneath the video	add a separate tab for lecture notes within the portal	Allow students to indicate a priority to their question, to maximize professor's time	Create a tab in the page titled "other" for any extra content not directly covered in class
Combine the lecture videos and corresponding lecture slides in the same section	Have a separate discussion board tab that allows students/ instructors to discuss each content section, add notes, etc.	Have lecture notes embedded into the discussion board	Allow teachers to create subcategories within the chapter discussed in a specific discussion board	Allow teachers to add videos alongside the class notes already posted for a specific topic through some type of button
Have a discussion board embedded into the lecture videos	give students the option to make their discussion question high priority/urgent	students have the option to add notes as a response to a peer's question	Allow the teacher to highlight questions/ comments as important so all students see them	Let the professor make the videos mandatory for students to watch through a toggle button
Have a "new video" section that displays the videos a student has not watched yet	Allow private discussions between peers/ instructors, only visible to participants.	Students have the option to hide notes they no longer wish to share or see	Professors can mass-post responses to discussions	Professors can write their own closed captions and alt text for videos and images

Top Picks for each relevant user story

User Story 1:

- Have a discussion board embedded into the lecture videos
- Have a “new video” section that displays the videos a student has not watched yet

User Story 2:

- Have a discussion board underneath each topic section
- Allow private discussions between peers/instructors, only visible to participants
- Give students the option to indicate a high priority/urgent question

User Story 3:

- Lecture notes embedded into the discussion board
- Students can post notes as a response to a question

User Story 4:

- Highlight questions to signify they are important to the students
- Professor’s view which compiles the student’s questions by priority and time constraint

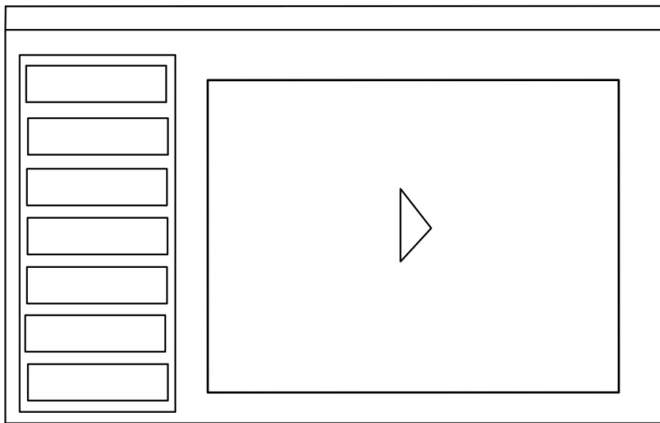
User Story 5:

- Add a new tab specifically for lecture videos organized by topic
- Mandatory watch video toggle

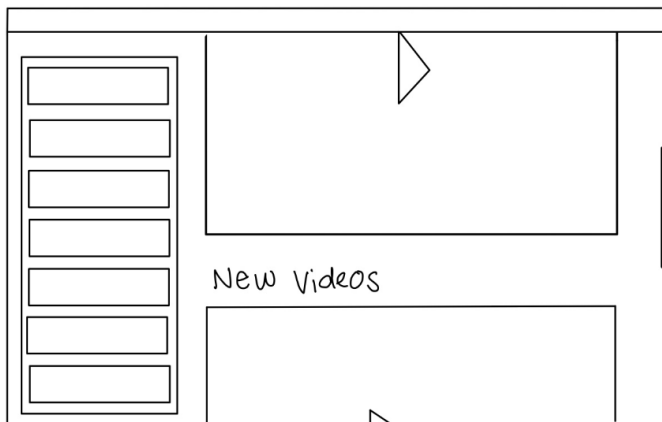
2. Wireframes for the user stories:

User Story 1

- A. Have a discussion board embedded into the lecture videos. This is helpful because it increases communication and collaboration for students outside of class. Students can also ask questions and leave tips and comments for their peers.
- B. Have a “new video” section that displays the videos a student has not watched yet. This would allow for easy access to these videos.



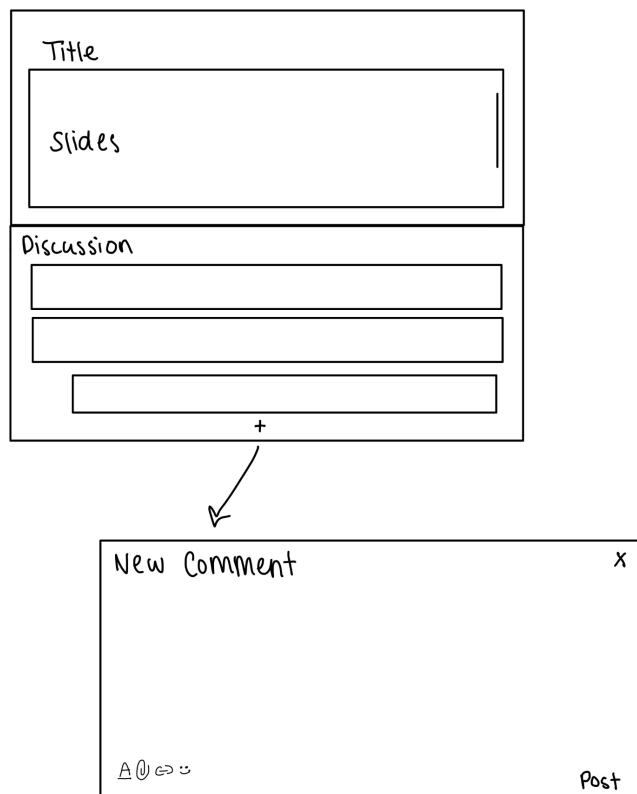
A.



B.

User Story 2:

- A. Have a discussion board underneath each topic section. This would give students and teachers the opportunity to ask and answer questions.
- B. Allow private discussions between peers/instructors, only visible to participants. This would enable for quick response on behalf of students in need of answers on a specific topic they do not want to ask in front of their peers.
- C. Give students the option to indicate a high priority/urgent question. This would bring the post to the top of the stack, allowing teachers and students to answer important questions in a timely manner.



A.

Title

Slides

Discussion

Private

you / other user		
you	discuss.	reply ↵
other user	discuss.	reply ↵

+



New private message to (name) x

1

A @ ↵ ☺

Post

B.

Title

Slides

Discussion

+



New Comment

urgent? ☐ ☒ x

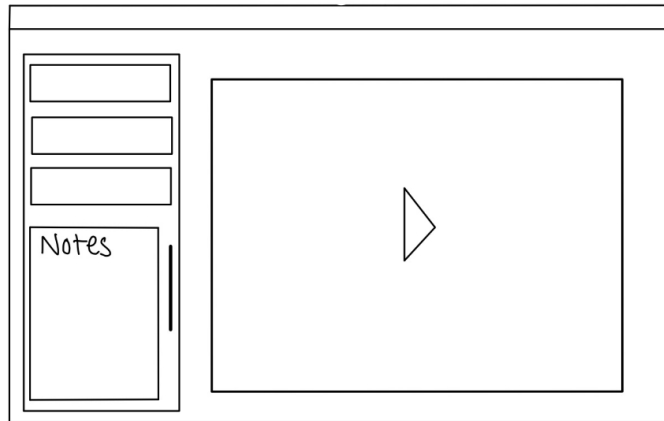
A @ ↵ 😊

Post

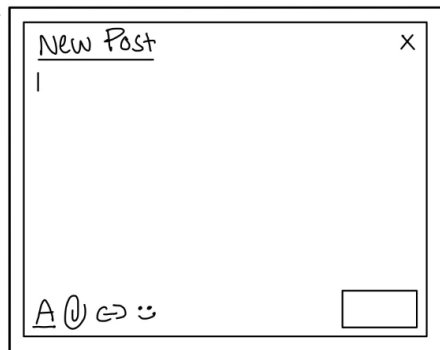
C.

User Story 3

- A. Lecture notes embedded into the discussion board. With this, class notes would be readily available alongside a recorded lecture. This way a student can view more information in one place.
- B. Students can post notes as a response to a question. This will help students answer questions for each other, and also allow a student who missed class to still access the notes.



A.



B.

User Story 4

- A. Highlight questions to signify they are important to the students. Teachers would be able to amplify a good or important question, so other students could see the answer easily.
- B. Professor's view which compiles the student's questions by priority and time constraint. This would save the instructor time when answering questions by allowing them to know which questions are most important.

🏠 course title	
home content classlist toolsv videos	
Post 1	v ★
Post 2	v ☆
Post 3	v ★
Post 4	v ☆

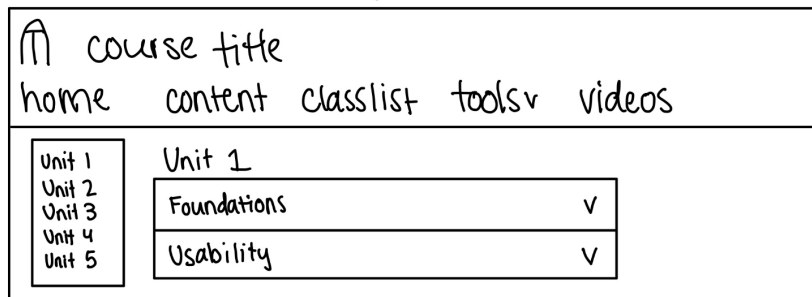
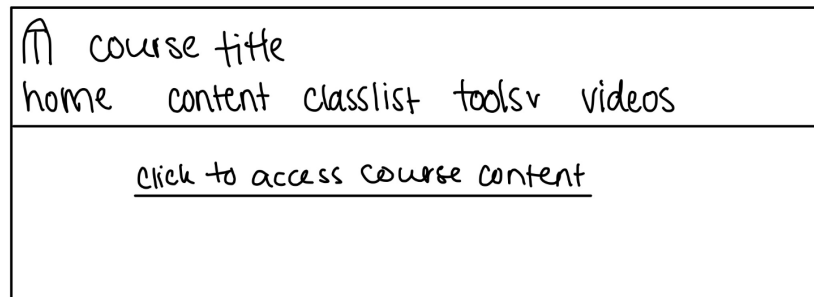
A.

🏠 course title	
home content classlist toolsv videos	
March 20	Important ★
March 18	
March 19	
March 19	

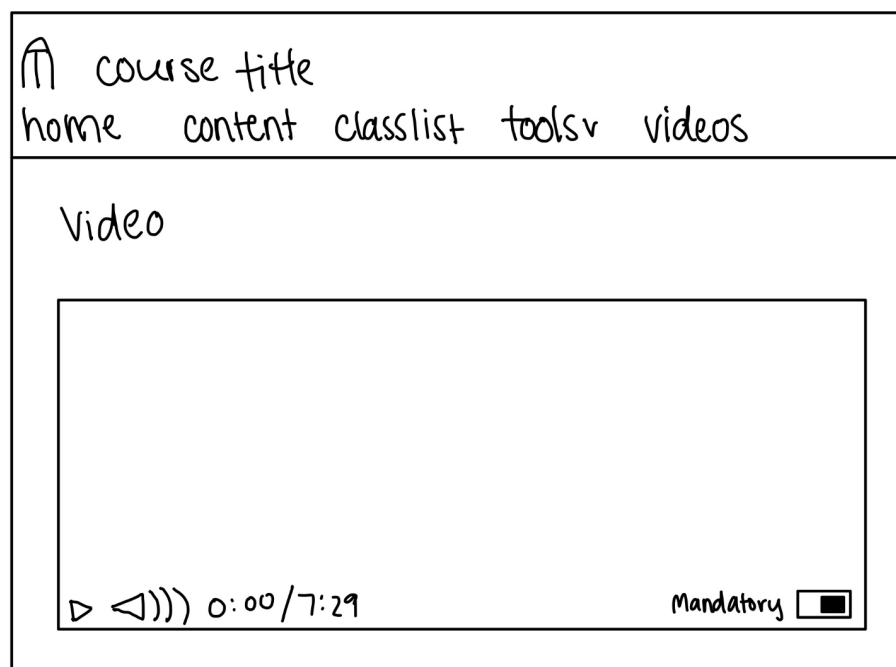
B.

User Story 5

- A. Add a new tab specifically for lecture videos organized by topic. This would increase findability and discoverability for the students.
- B. Mandatory watch video toggle. This marks important videos, and forces the students to watch a video which could cover a topic not covered in class.



A.



B.

C. Detailed Designs

These are the designs that we chose from our wireframes:

User Story 1:

- A. Have a discussion board embedded into the lecture videos

User Story 2:

- A. Have a discussion board underneath each topic section

User Story 3:

- B. Students can post notes as a response to a question

User Story 4:

- A. Highlight questions to signify they are important to the students

User Story 5:


- A. Add a new tab specifically for lecture videos organized by topic

The link to our milestone 3 Figma project:






<https://www.figma.com/file/6qkzNEKO9JEWzaucKufcnQ/Milestone-3?node-id=0%3A1>

User Story 1

We chose to implement this design for this user story, because the signifier of the discussion board affords collaboration between the students and instructors. Having a discussion board is helpful because this allows students to ask questions they did not ask in class. This also lets students who may have missed class re-watch the lecture and see what other students were asking. This is also good for reviewing the materials before a test; the student can use questions that were asked as study topics to review. We chose to design all of our discussion boards the same, which are modeled after eLc. This design is better than a “new video” section because, while helpful, improving communication is the main goal of this project.


 eLearning Commons
UNIVERSITY OF GEORGIA


Course Name


 User Name


[Course Home](#) [Content](#) [Assignments](#) [Grades](#) [Classlist](#) [Videos](#)


Lecture 1: Vocabulary

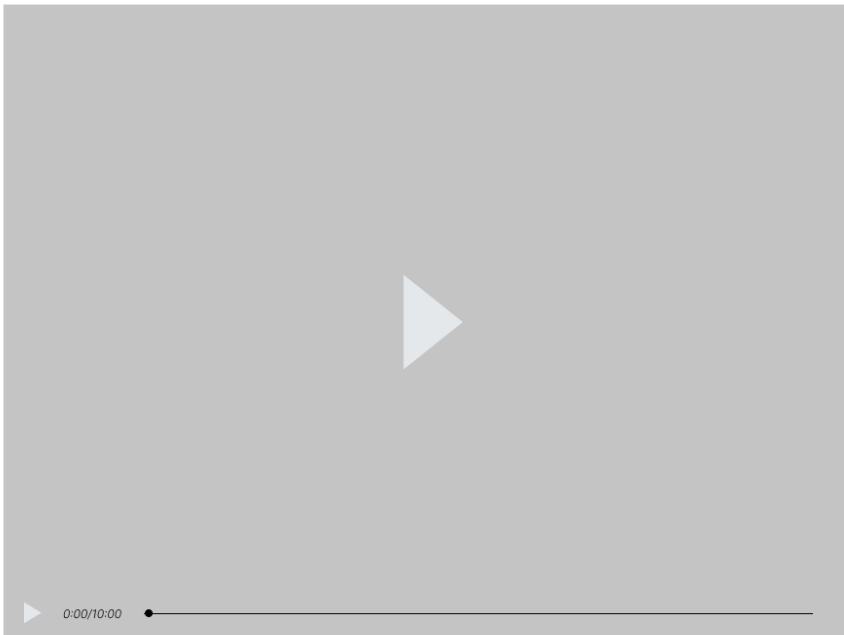
 Username
A comment goes here [reply](#)

 Username
A comment goes here [reply](#)

 Username
A comment goes here [reply](#)

 Username
A comment goes here [reply](#)

 New



0:00/10:00

User Story 2


We chose to implement this design because it provides a discussion board that is close at hand whenever students are viewing slides, affording students and professors the ability to easily communicate with each other regarding a specific topic. Students can ask questions or comment on the topic and be answered by both their peers and the professor without ever having to leave the page that their slides are on. Design wise, it has a similar look and feel to what eLc already has, which was our intention for all designs.

We chose this design over our other two options as it fits what we are wanting to achieve best, which is simple and easy communication between students and professors. The option with the private discussion board ended up being a bit bloated. Having both private and public communication in one place didn't seem to provide the most simple user experience, so we decided to not use that design. We also decided against the third design for similar reasons; it just provided too many options/features.


Slides Title




Discussion:

 Username
A comment goes here


reply

 Username
A comment goes here

reply

 Username
A reply goes here

reply

 Username
A comment goes here

reply

+

 Add a new comment

Clicking “Add a new comment”
will produce this comment box

New Comment

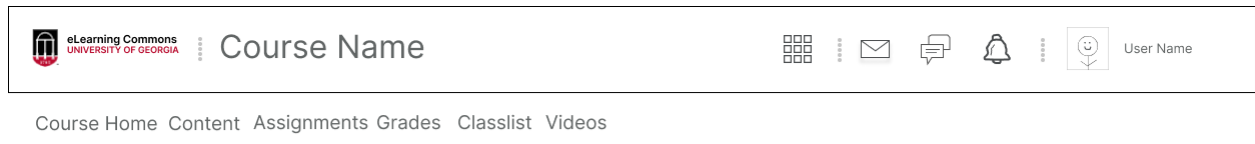
write your comment here...

[U](#) [B](#) [/](#) [@](#) [≡](#) [≡](#)

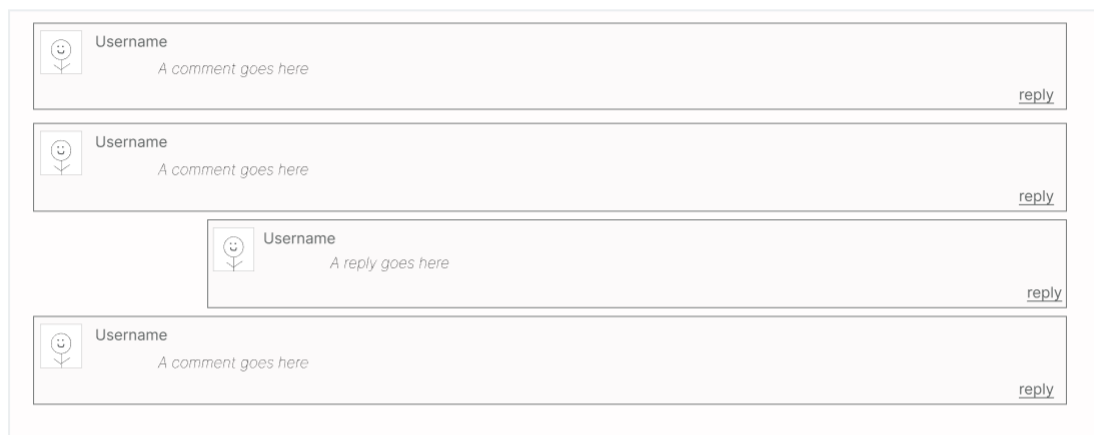
post comment

User Story 3

We chose to implement this design because it allows students to attach their notes to a comment. This would allow them to share knowledge and answer questions only if they wanted to. We chose to use a paperclip as the design of the attachment signifier. If a student is feeling helpful, they can click the paperclip and choose what files they want to attach. We also made the post box look similar to other popular text boxes, like the Gmail web app. This is better than embedding notes straight into the discussion because it is more straightforward and there is less feature bloat.



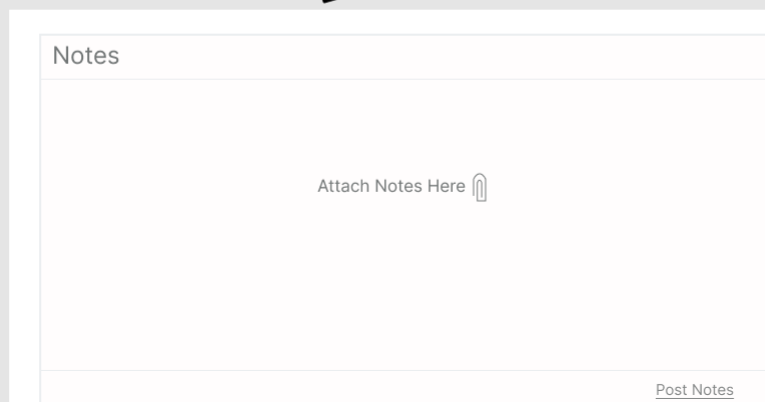
Discussion:



The discussion interface shows a list of comments. Each comment box includes a user icon, a 'Username' label, a text area with the placeholder 'A comment goes here', and a 'reply' link at the bottom right. The third comment is a reply to the second, indicated by its indentation.



Clicking the plus button will produce a box to attach notes

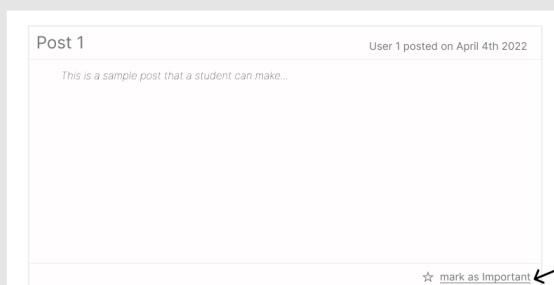
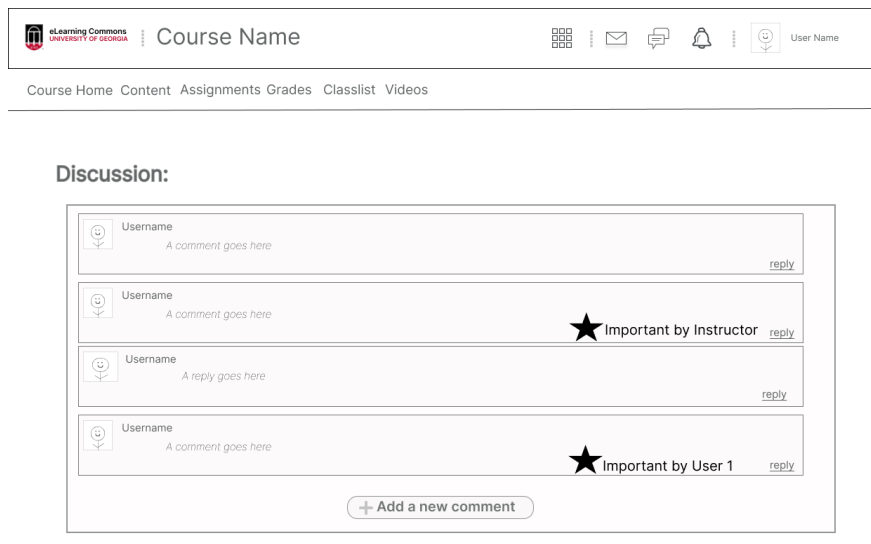


The expanded 'Notes' box has a title bar 'Notes'. Inside, it says 'Attach Notes Here' with a paperclip icon. At the bottom right, there is a 'Post Notes' link.

User Story 4

We chose to implement this design because it would benefit both students and teachers. The other wireframe design is more focused on the teachers' experience.

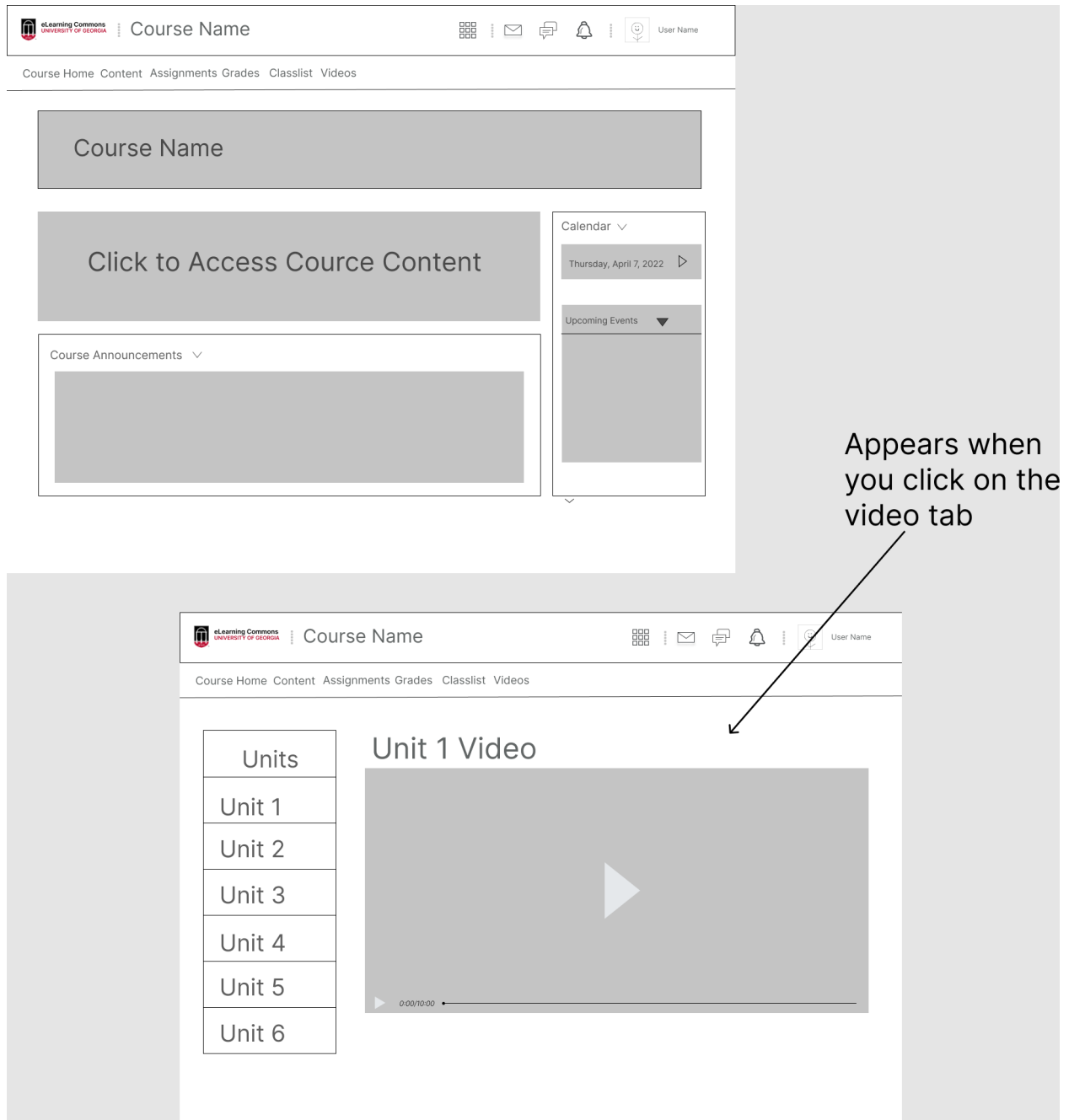
With the highlighted star icon, students and teachers can mark a comment as "Important" when needed. We envision that students can use this icon to gain the teacher's attention if there is a question, or if they think a post is particularly helpful. Teachers can use the icon to draw attention to a post if other students will benefit from viewing it. Since the star icon displays which user marked the comment as important, other users can act accordingly. For example, a student will more likely view another student's post if the teacher has marked it as important.



Click to mark as Important

User Story 5

We chose to implement this design because having a tab for videos increases the video findability. We thought this would be more valuable of a tool than the mandatory-watch toggle because it would be used by students more frequently. The toggle would only be used once for every video by the teacher, whereas, the students will click on the video tab frequently for review. The significance of the tab is it provides an easier way for students to find a video they want to watch since the videos are all under their own specific tab. This alleviates the work of a student having to search for the video under the “Content” tab.



D. Summary Video

https://youtu.be/PMwCXw8_fGM

Credits

Writers: Lindsey, Jessica, Lizy

We worked on all parts together.

We met multiple times to work on this and it was all equally contributed.