

ATHENA



UNIVERSITY OF GEORGIA

Athena Usability Report

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Executive Summary

Athena is a website in which students can do a wide variety of tasks such as registering for their classes, viewing their financial aid awards, and updating their contact information.

Usability testing was conducted on the Athena website by five University of Georgia Students from the User Experience Strategy course led by instructor Leah Moss. The goal of the usability testing is to identify issues related to website navigation and organization.

The study was conducted by use of a uniform process which included a pre-test questionnaire on a Google Forms page, assignment of specific tasks given a scenario, and a post-test questionnaire also on a Google Forms page. Team members supervised and conducted user testing on five participants. The profile of these participants is described in the Participants section of this usability report.

This report details the findings of the usability study and provides guidelines for improving usability for the Athena website. The study confirmed a few positive components attributed to the current build of the website, including its navigation and content organization.

Several minor and major issues were also discovered during the usability study and are detailed in this usability report. The developers of Athena can use these findings as a guideline for improvement when updating the website.

Methodology

Objective

In an effort to better understand users' experience with the Athena website, the "Athena Usability Study" was administered by five students from the User Experience Strategy Class with five participants, who were given a set of tasks related to Athena. As we conduct the usability study, we hoped to gain more insights through the following research questions:

- Is it easy for students to navigate on the homepage and access Athena features and Student Account?
- Are certain actions safe for the user like accepting/rejecting financial aid and dropping classes?
- Are students satisfied by the class search and registration interface? What makes it hard or easy for them to plan and register their classes? Is it easy for incoming freshmen and new students to learn the class registration process?
- Is it easy for users to clear holds like contact information holds?
- Is the financial aid page easy to understand and is everything organized?

In answering these research questions, we hope to identify any major and/or minor issues that users experience as they move through the Athena website, including navigation and user interface design, and provide recommendations that may help guide future development and improvements of Athena.

Method

A group of 5 students from User Experience Strategy Class conducted the "Athena Usability Study" (attached to this report in the Appendix), in order to test how 5 volunteer participants would interact with the Athena website. The study occurred during the week of July 19, 2020. Usability testing results are intended to guide the improvement of Athena for future updates. This study was done as a part of the User Experience Strategy Class (NMIX 4200) led by instructor Leah Moss.

All testings were administered through the use of Zoom, in which the user screen movements and audio were recorded. Each test lasted approximately 10 – 20 minutes. The observer reviewed all recordings, timed all tasks, and made both quantitative and qualitative observations.

A link to the complete Athena Usability Protocol is provided in the Appendix and the user script is provided in the Testing Instruments section.

Testing Components

The study consisted of a pre-test questionnaire, 4 main assigned tasks, and a post-test questionnaire. Both questionnaires were administered through Google Forms.

- **Consent Form:** Prior to participating in the usability study, each participant was asked to read and sign a consent form that includes the purpose of the study, information that will be collected, and the privacy policy.
- **Pre-test Questionnaire:** A pre-test questionnaire was conducted through Google Forms to collect demographic information about each participant's year in college, major, and credit hours. The participants were also asked about their familiarity with technology as well as Athena.
- **Assigned Tasks:** The guided task section included 4 main tasks to be completed by each participant with a total of 11 tasks. Throughout the tasks, the participants were to simulate a scenario in which they had to register for classes for the new semester, which also involved a series of associated tasks such as clearing holds or checking financial aid status. The tasks were designed to allow the participants to perform a set of tasks to test the site's ease of use, navigability, intuitiveness of design, information architecture, and relevance of content for the intended user group. Participants were asked to verbally state when they begin each task as well as when they believe they have completed each task.
- **Post-test Questionnaire:** A post-test questionnaire was conducted after the usability study through Google Forms. Participants were asked to rate their experience with Athena, which included navigation, user interface organization, and aesthetics. The ratings were done through a series of statements accompanied by five-point Likert scales. Using open-ended questions, the post-test questionnaire also asked participants to describe their likes and dislikes about Athena as well as to further elaborate about their experience in using Athena.

Testing Instruments

- **Testing Instruments:** The study was conducted using Zoom video software with screen sharing and Google Forms for the [pre-test questionnaire](#) and [post-test questionnaire](#). The interviewers used a written [user script](#) during the study. The length of each study is approximately 15 minutes. The participants were asked to go to the Athena website for the study.
- **Links:** Some text above contain links. If they do not work, full links are located here:
 - User Script:
<https://docs.google.com/document/d/15ndffQ2Us2MR9ZWxXkln-qVLo6i18lUlhGfXlzMusQ/edit?usp=sharing>
 - Public Pre-test Questionnaire on Google Forms:
https://docs.google.com/forms/d/e/1FAIpQLSfnszmzuuCWAWpRnvQ07LwB6SPnRmBlzF_o50KEs_gw5xuY8w/viewform
 - Public Post-test Questionnaire on Google Forms:
https://docs.google.com/forms/d/e/1FAIpQLSfv_707ALfir7zNUfhYfCCbGIRq7yUqQG6S_kCx2yrGl_e55Q/viewform

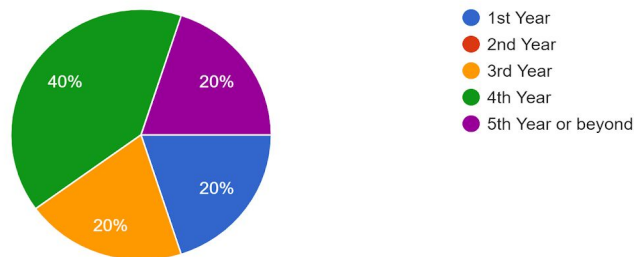
Participants

Five volunteers participated in the usability study. Five is the minimum sample size number required to effectively find usability issues. Participants range from first-year to fifth-year and beyond, however, there are no second-year participants. Each participant varies in terms of college major, but as the participants were from the University of Georgia and had access to Athena, all participants fell within the target audience for usability testing.

Of the 5 participants, 1 (20%) is a first-year student, 1 (20%) is a third-year student, 2 (40%) are fourth-year students, and 1 (20%) is fifth-year or beyond.

2 of the participants are Computer Science majors, 1 is a Food Science major, 1 is an English major, and 1 is an Exercise and Sport Science major.

Year in College:
5 responses



Testing Limitations

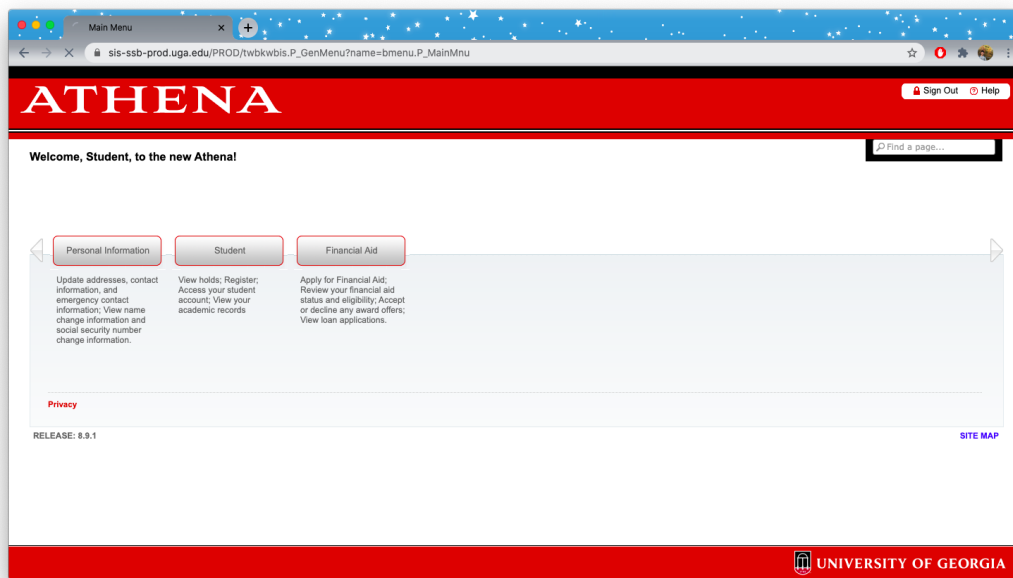
- **Sample size:** While the minimum sample size of 5 allows for a moderate amount of usability issues to be discovered, a larger sample size would have led to more findings. The sample may be biased due to the fact that some of the participants knew their specific interviewer prior to the usability study.
- **Inconsistencies in test administration:** Although all interviewers used the same [user script](#), differences from each interviewer's testing styles and the participants' different usage of computers, operating system, and browser choice along with conditions like different internet speeds may have skewed some results.
- **Timing:** Participants were asked to verbally indicate when they were starting and finishing tasks. All participants failed to do this at least once during the course of the study, which led to potentially inaccurate time measurements.
- **Task Obstacle:** One major task during the study required participants to register for a specific class, COMM1110. While we planned work-arounds for the participants if they could not register for the class, it was not anticipated that the class chosen in particular for this study would close and become unavailable for registration.
- **Participant Limitations:** One of our participants is an incoming freshman. Since they had not had their advisor meeting at the time of the study, they were unable to fully access the parts of Athena needed for the registration task.

Findings and Recommendations

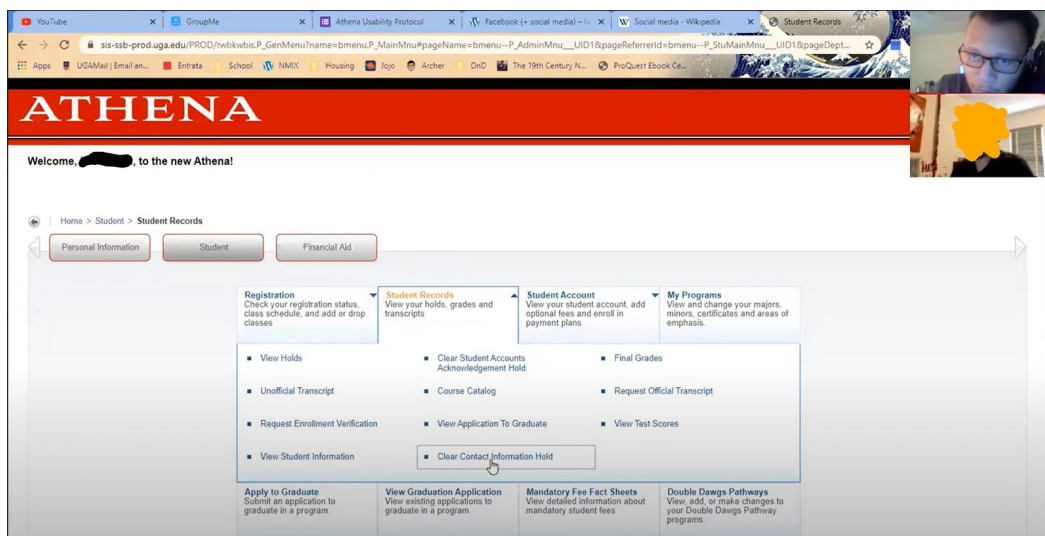
Positive Findings

Navigation, Menu, and Content Organization

Most participants were able to navigate the Athena website and complete the tasks presented in all the scenarios. Only one participant was not able to complete a task due to restrictions on the account beyond the participant's control. The majority of participants gave Athena a relatively high rating for its navigation and content organization in the post-test questionnaire.



↑ Athena homepage after login



↑ A participant navigating through Athena in the Student tab
[Note: Participant's information is removed in accordance with our privacy policy.]

Some of the comments we received regarding the navigation and content organization include:

"I like the Student tab of Athena to remain unchanged because it is easy to navigate."

"It works well."

"[I like] the little paragraphs at the bottom of each button summarizes what lies under each button."

Student Account
View your student account, add optional fees and enroll in payment plans

Because of the overall positive feedback we received, we recommend the navigation to remain unchanged, to keep the button description and the organization of the website the same. However, we recommend updating the look of the buttons as later described in the section Minor Problems.

Viewing Financial Aid

Personal Information | Student | **Financial Aid**

Financial Aid Status for 2020-2021

Home > Financial Aid > Overall Financial Aid Status

The following information for enrollment in the Fall/Spring is based on your status of:

- Undergrad, Resident, On Camp in Fall 2020
- Undergrad, Resident, On Camp in Spring 2021

For additional information, please review the [Cost of Attendance \(COA\)](#) information on the Office of Student Financial Aid (OSFA) website.

This is a summary of your financial aid information for the specified aid year. To obtain greater detail about any of the following summary statements, select the corresponding link.

Your estimated [cost of attendance](#) is

You have been [awarded](#) financial aid which totals

Based on your [academic transcript](#), the status of your [academic progress](#) is Satisfactory as of Summer 2020.

[View your financial aid history.](#)

[Select Another Aid Year](#)

↑ Athena's Financial Aid Interface

The participants gave high ratings for Athena for its ability to keep users informed of their financial aid status. Moreover, participants provided positive comments about their experience with checking their financial aid status on Athena, describing their experience as "easy," "amazing," and "satisfactory."

Major Problem

Major Problem 1: Look up & Plan for Classes

Participants were asked if they use any other websites to plan their schedule, 4 out of 5 participants used another website to assist in their planning. Out of the 4 participants who use other websites, 3 out of 4 said they use a website called Courseoff. Courseoff is a

website that allows its users to quickly plan their classes with a weekly calendar style interface. While Athena also has a weekly calendar style interface in Week at a glance button, classes will only show up if the user actually registered for the class. Moreover, the class length is not shown on the interface and only the building code is shown, making it difficult for users to figure out their class location. This is a major problem as this forces users to use other websites to complete their task. Participants in the study provided comments regarding why they had to use Courseoff.

"You can see the time blocks that the classes are at and simply makes it easier to view when choosing classes."

"Courseoff--has a clean UI and is really easy to search up classes."

"I use the site Courseoff because it allows me to see how my weekly schedule will look like if I register for specific classes. It also allows me to see which schedule works for me."

	Monday	Tuesday		monday	tuesday
9am	ENGL 1102-0 16561 Class 9:05 am-9:55 am 0056 0079	CSCI 1302-0 25528 Class 9:30 am-10:45 am 1061 2401	8 am		
10am	CSCI 1302-0 25528 Class 10:10 am-11:00 am 1002 0200B		9 am	ENGL 1102 Park Hall 0079	CSCI 1302 Miller Plant Sci 2401
11am		PSYC 1101-0 16990 Class 11:00 am-12:15 pm 0066 S306	10 am	CSCI 1302 Geography Geology 0200B	
12pm			11 am		PSYC 1101 Inst Plaza S306
			12 pm		

↑ Athena's Week at a Glance Interface

↑ Courseoff Interface

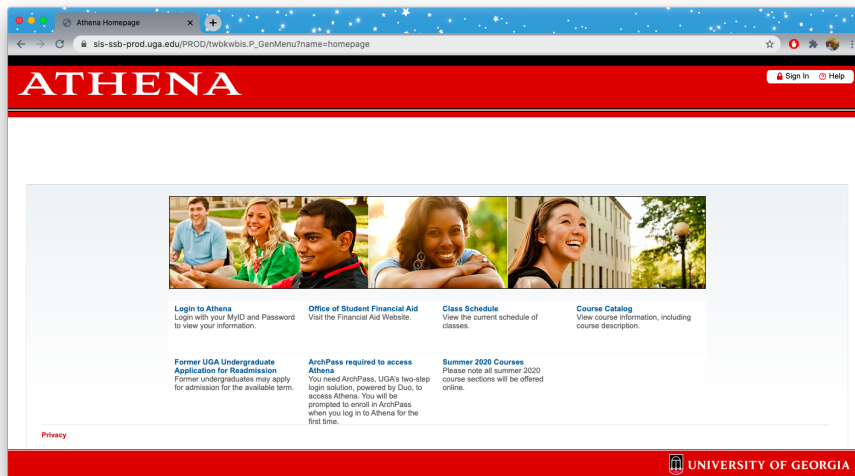
Recommendations

- Redesign the week at a glance page so that the class blocks are actually the length of the class time instead of word length of the class title. As shown above in the Athena interface, the PSYC class, despite it ending at 12:15, the Athena interface makes it appear that it is ending at 11:30.
- Introduce a new feature on the week at a glance page so users can pre-register for their classes and drop classes easily without actually registering for the classes. With this new feature, it should also have a "Register all" button to allow users to instantly register all the classes that they planned.
- Make class blocks color coded for easy viewing.
- Replace building codes with actual building names.

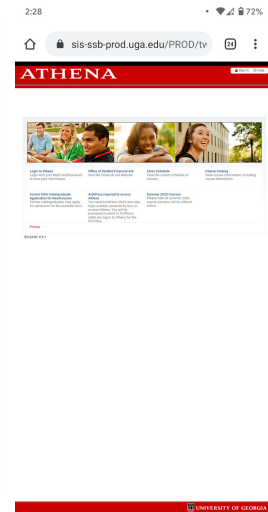
Minor Problems

Minor Problem 1: Athena does not work on all the devices that the user owns

Participants were asked if Athena works well on all the devices that they own in the post-test questionnaire, and the response is overwhelmingly neutral. While Athena works great on computers and works on smaller screens, the same interface looks squeezed onto devices with smaller screens, making it harder to read text.



↑ Athena on a computer



↑ Athena on a phone

Recommendations

- Introduce a smartphone app or update Athena to use responsive web design so that on devices with smaller screens, the buttons and text can be automatically resized larger, making it easier to read and touch.

Minor Problem 2: Outdated look/outdated underlying technology

During the usability study, at least one participant experienced a bug with the website. While it did not result in failure of the participant in completing the task, the participants voiced their frustrations during the study as well as in their comments in the post-test questionnaire. Some of their comments were:

"The website looks a bit outdated."

"It keeps refreshing every so frequently when clicking on a button on the main homepage."

"It crashes."

While the refreshing bug described in the comments cannot be duplicated by the interviewer, the participant did experience this annoying bug, as shown below.



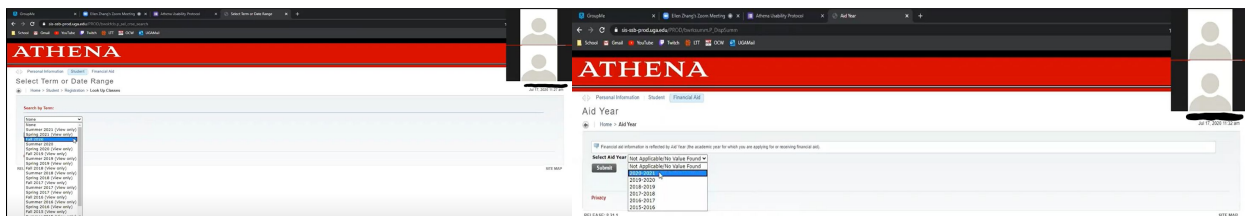
↑ The participant runs into a bug when a link is clicked, it takes some time to load and refresh the entire page. Another participant was taken aback when they encountered the “logout successful” screen when attempting to access the Athena login page. This required the participant to refresh the page to continue the rest of the task and added an extra step for users.

Recommendations

- Update Athena to the latest web technologies, like HTML 5 to prevent the refreshing of the entire page when clicking a button.
- Update the look and feel of the buttons without doing major changes to the navigation interface.
- Fix login/logout bug so users won't encounter the “logout successful” screen when accessing the login screen.

Minor Problem 3: Date Selection

When completing tasks involving date sensitive actions, Athena asked at least one participant more than once for a date despite the fact that the participant has already entered a date in a previous task, as shown in the images below. Moreover, based on observations, participants often moved their mouse first past the desired date and hovered an older date before realizing that the date is incorrect and moved their mouse up to select the correct date. While it is important to ask the users to clarify the date, asking for the date more than once or having the user to select a date every time increased the time to complete certain tasks.



↑ The same participant had to select a date twice for completing a similar action.

Recommendations

- Create a new universal semester/year selection dropdown menu near the top of the webpage interface.

- Consider making Athena default to the current semester/year in the dropdown menu so users do not have to change the date option from “None” or “No Value Found” to other date options.

Minor Problem 4: Button Redundancy / Consistency

Although the positive findings from the study shows that most participants were able to navigate around the Athena website well, there was one occasion during the test in which a participant appears to be confused about the set of buttons in the personal information tab, as presented below:

View Addresses and Phones	Update Addresses and Phones Students can use this link to update their contact information.	View Emergency Contacts	Update Emergency Contacts
---------------------------	------------------------------------------------------------------------------------------------	-------------------------	---------------------------

Despite being asked “how might you view your addresses and phones on Athena?” the participant had hovered over the “Update Addresses and Phones” button instead of the “View Addresses and Phones”. During the observation period, the observer had decided to consider this action to be correct as both buttons would allow the participant to view the same information.

Recommendations:

- Combine the functions of the “View Addresses and Phones” and “Update Addresses and Phones” buttons into a single “Addresses and Phones” and allow the users to click on the button and be able to edit their information from the same page. This will reduce the confusion that users may experience by presenting only one button.
- The same recommendations can be applied to the “View Emergency Contacts” and “Update Emergency Contacts”, in which these buttons can be combined into a single “Emergency Contacts” button.
- Review other buttons that may perform identical functions or a duplicate of a button appearing in a different tab of Athena. Consider combining those buttons into a single button to improve the website organization and reduce users’ confusion.
- Improve consistency between the buttons as the “Update Addresses and Phones” button has a description below it while other buttons do not have descriptions. Update the buttons so all buttons have a description below it as described above in the positive findings section, since participants generally liked the descriptions below the button.

Conclusion

Our decision to test Athena was originally met with the impression that we would be receiving a lot of negative feedback; within our group, we expressed our own frustrations with Athena for its finicky behavior, especially when logging in and registering for classes. While these frustrations were reflected in the feedback we received, the final results were still generally positive.

Overall, based on our findings, Athena does not have any major issues that prevent users from completing their goals, and the site works as intended. While having more than five participants could have yielded different results, all but one of the participants (the exception being a freshman who was still on hold from registering for classes) completed every task successfully. The issues that arose only really caused participants to take a little longer to complete the tasks.

Participants felt like Athena was fairly well organized, but out of date. We recommend that Athena be updated to the latest web technologies to resolve bugs and redesigned with a more modern look while also simplifying the navigation. Additionally, Athena's biggest weakness is its failure to adapt a system that could help students plan for classes in advance-- a system similar to Courseoff could be implemented into Athena that would allow students to stay on Athena rather than utilize a separate site.

References

Inspiration taken from:

<https://uga.view.usg.edu/d2l/le/content/2037414/viewContent/30411968/View>

<https://uga.view.usg.edu/d2l/le/content/2037414/viewContent/30293004/View>

Appendix

Time on Task

TOTAL TIME ON TASK (Seconds)											
	Task 1	Task 2	Task 2.1	Task 2.2	Task 3	Task 3.1	Task 3.2	Task 3.3	Task 4	Task 4.1	Task 4.2
Participant 1	9	74	6	3	62	X	42	X	43	12	7
Participant 2	23	25	16	16	70	30	55	25	18	32	11
Participant 3	19	9	14	6	113	40	26	19	9	10	45
Participant 4	3	16	4	3	26	20	10	7	5	7	5
Participant 5	23	18	6	6	67	24	21	20	22	8	10

Red means the participant has to complete 2 step verification with Duo mobile, which may affect the time required to complete the task.

Blue means the time on task was abnormally longer when compared to than other participants.

X means the participant failed to complete the task.

Task Success Rates

Task 1

- Task 1.0: 100%

Task 2

- Task 2.0: 100%
- Task 2.1: 100%
- Task 2.2: 100%

Task 3

- Task 3.0: 100%
- Task 3.1: 80%
- Task 3.2: 100%
- Task 3.3: 80%

Task 4

- Task 4.0: 100%
- Task 4.1: 100%
- Task 4.2: 100%

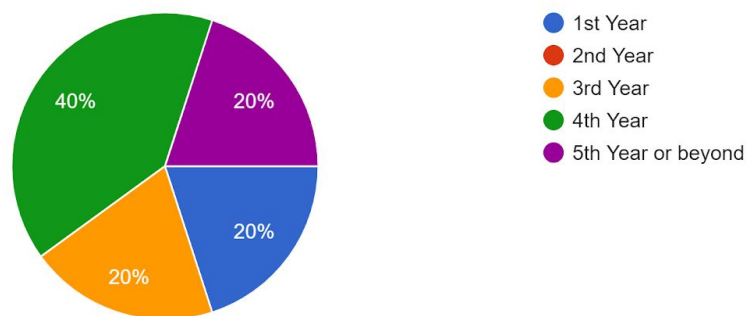
Usability Protocol with Consent Form, User Script, Tasks, and Questionnaires

<https://docs.google.com/document/d/1zsfw3xgPmPMInYC5H0ixJPL7eNPb7OC9yKuifEV3RdY/edit?usp=sharing>

Pre-test Questionnaire Results

Year in College:

5 responses



Major:

5 responses

Computer Science

Computer science

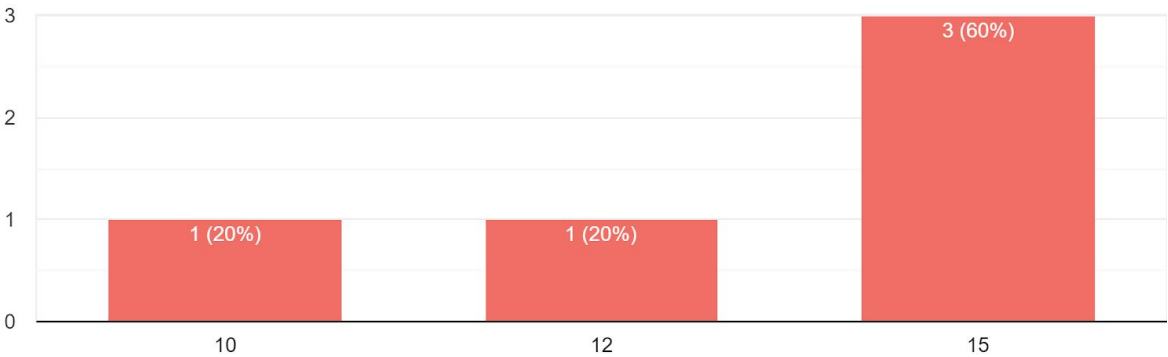
Food Science

English

Exercise and Sport Science

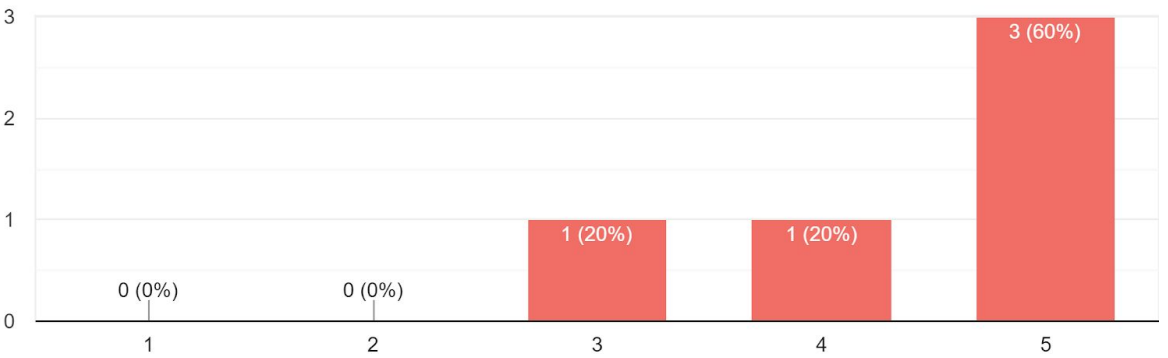
How many credit hours are you currently registered for?

5 responses



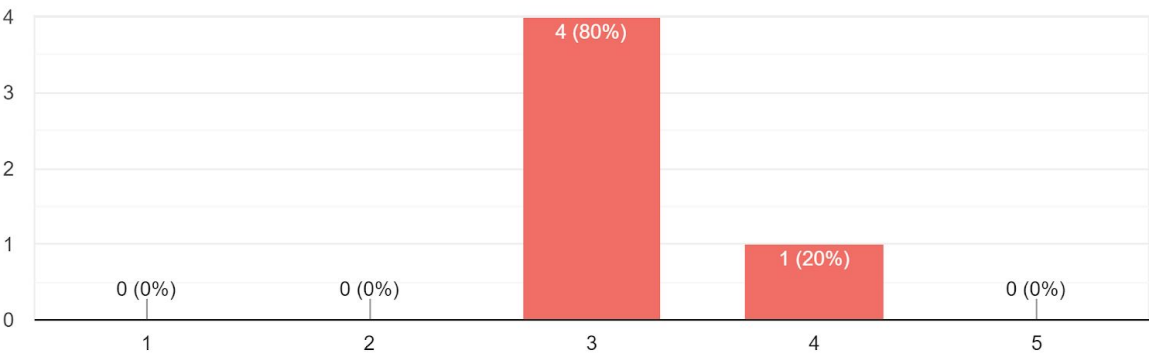
How easy it is for you to adapt to technology?

5 responses



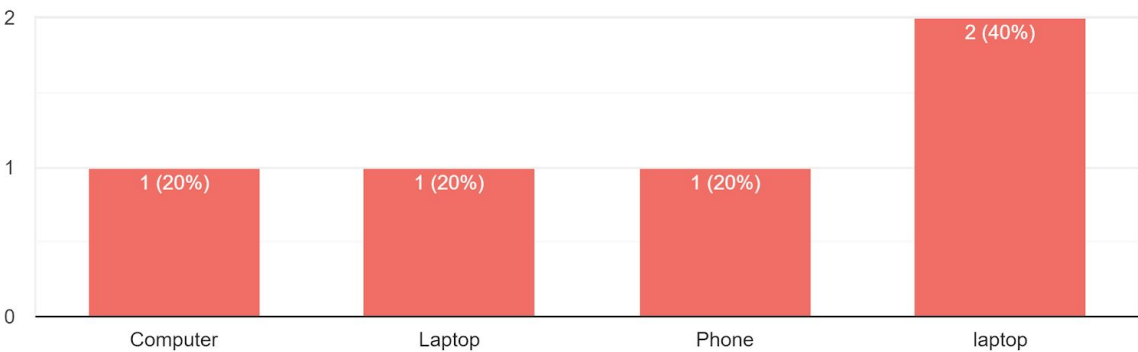
How often do you use Athena?

5 responses



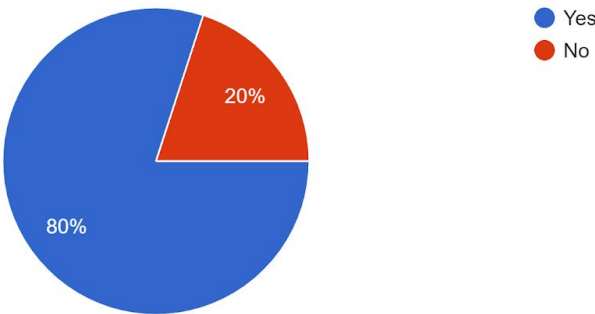
What device do you usually use to access Athena?

5 responses



When planning your schedule/registering for classes, did you use other websites?

5 responses



If yes, what website(s) do you use? Please list them.

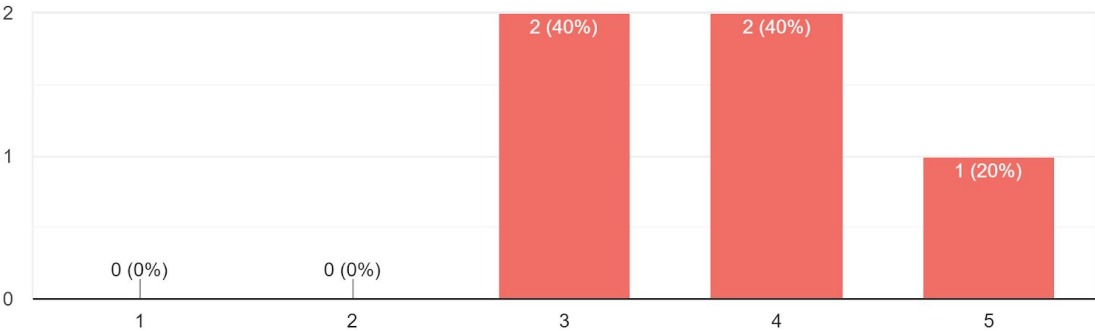
4 responses

courseoff
course off
Ratemyprofessor.com
Courseoff

Post-Test Questionnaire Results

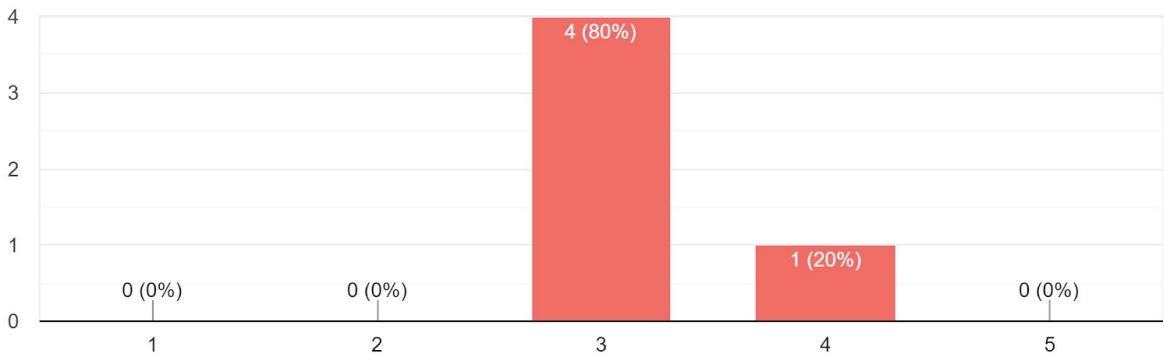
Athena is easy to access and use.

5 responses



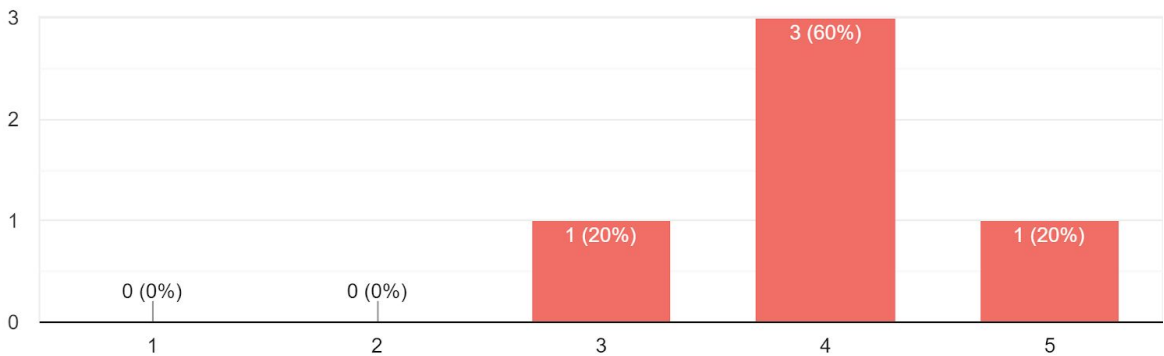
Athena works well on every device that I use to access it.

5 responses



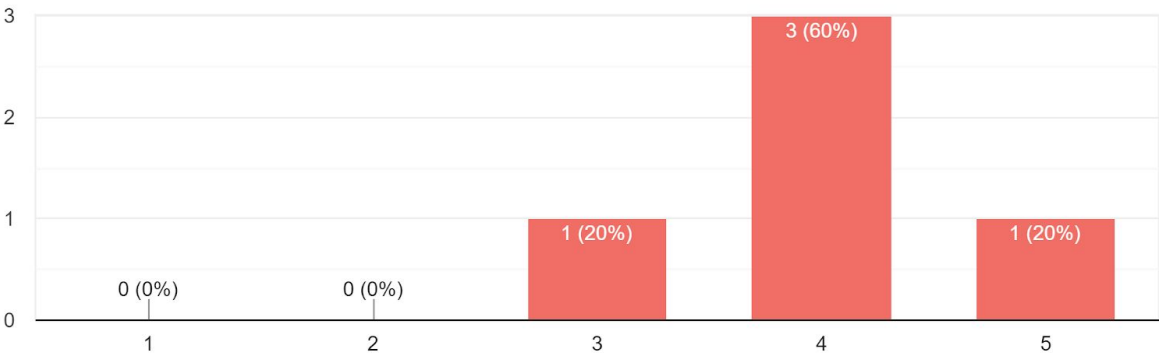
Athena is easy to navigate.

5 responses



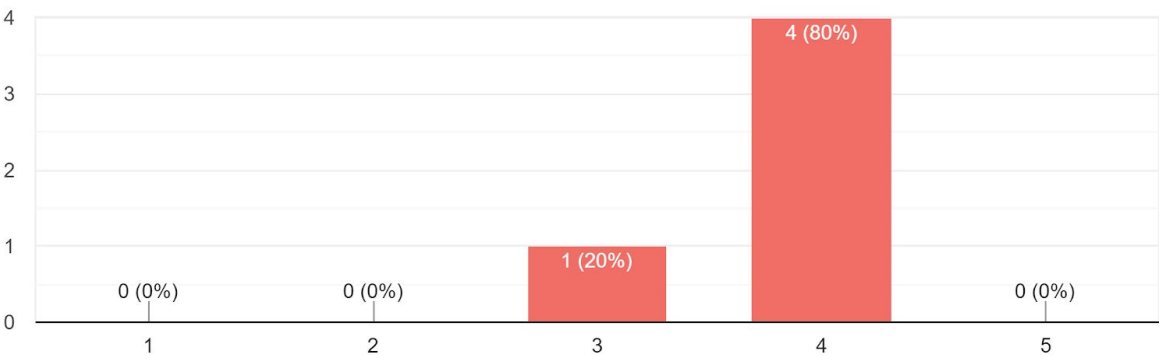
Athena is organized in a way that makes sense to me.

5 responses



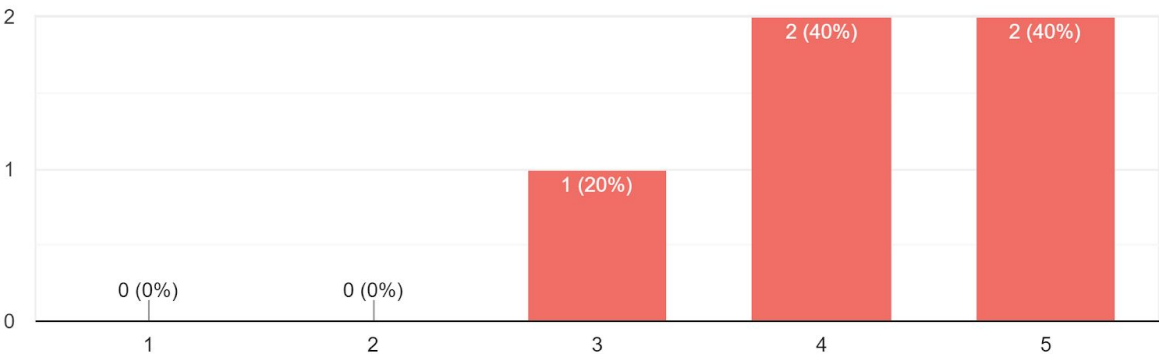
Information on Athena is presented in a way that is understandable to me.

5 responses



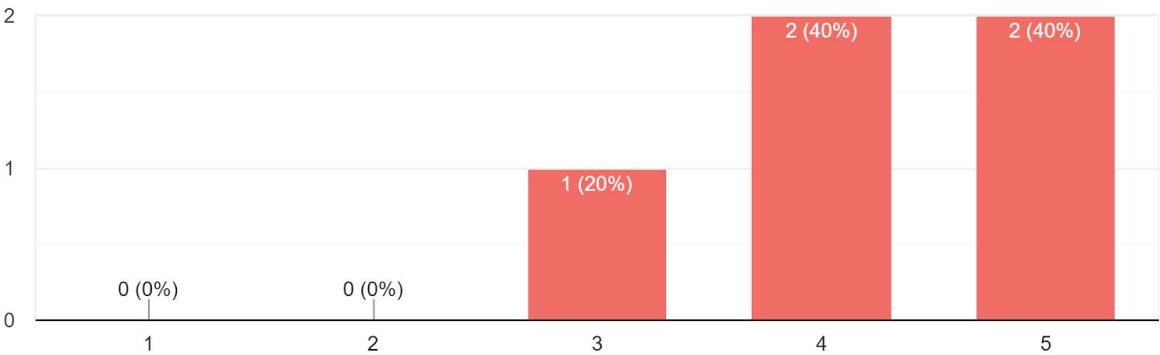
When I log into Athena, I know where to find the information I'm looking for.

5 responses



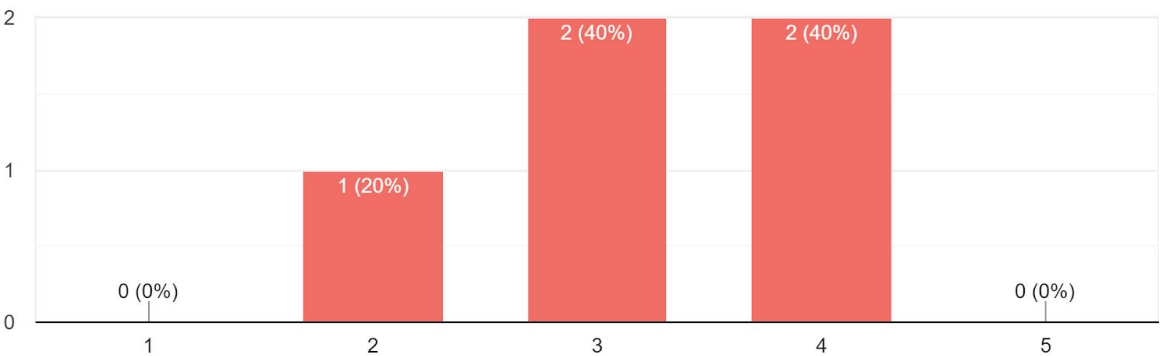
Registering for classes on Athena is pretty straightforward.

5 responses



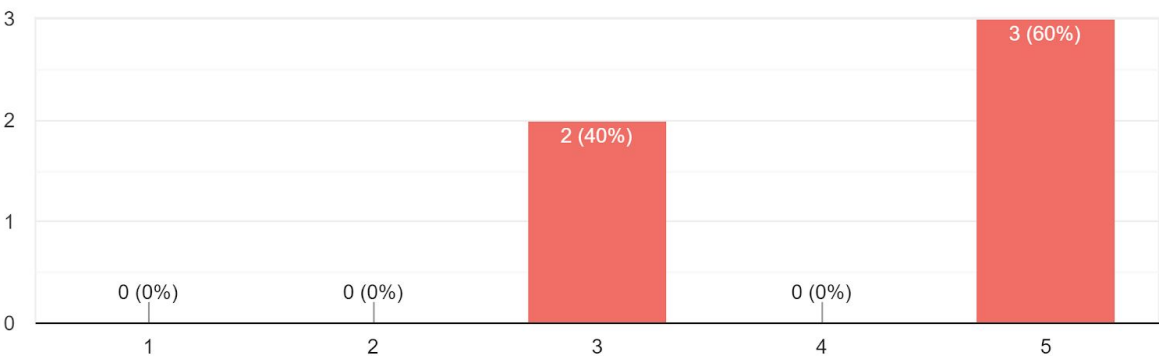
It's easy to look up and research classes on Athena.

5 responses



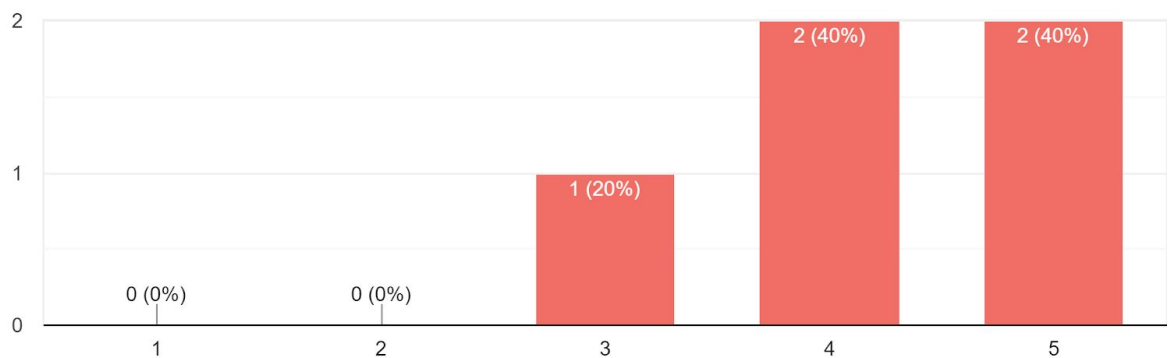
Any mistakes I make while navigating Athena are easily undoable.

5 responses



Athena keeps me well-informed about my academic status and financial aid.

5 responses



What do you like most about Athena?

5 responses

- The little paragraphs at the bottom of each button summarizes what lies under each button
- being able to see classes ahead of time
- Youre able to find everything
- It works well
- Everything is well organized and easy to find

What do you like least about Athena?

5 responses

- The website looks a bit outdated
- It keeps refreshing every so frequently when clicking on a button on the main homepage.
- It crashes.
- Nothing comes to mind
- n/a

How was your experience checking on holds and viewing your personal information on Athena?

5 responses

Easy

great, easy to access and easy to navigate

Somewhat decent

Satisfactory

It was very quick and easy

How was your experience registering for classes on Athena?

5 responses

Easy

alright. it could've been better. I hate when there is a huge lag when registering and cant get the classes you want

Stressful due to not being able to handle large capacity of users

Satisfactory

I did not have any trouble registering and I liked being able to put in the course codes for all my classes to register for all of them at once.

If you use other websites to plan your schedule, what do you use and why do you use them as opposed to Athena?

5 responses

Courseoff--has a clean UI and is really easy to search up classes

I use course off because it easier to view them in a week work's of schedule. You can see the time blocks that the classes are at and simply makes it easier to view when choosing classes

n/a

I can get other student's opinions on potential professors

I use the site courseoff because it allows me to see how my weekly schedule will look like if I register for specific classes. It also allows me to see which schedule works best for me.

How was your experience checking on your financial aid status in Athena?

5 responses

Easy

amazing.

decent

Satisfactory

I had no trouble accessing that data

What parts of Athena would you like changed?

5 responses

UI

refreshing every so frequently and the huge lagging when registering for classes

the crashing

Nothing comes to mind

I wish Athena could have a link that could redirect me to degreeworks.uga.edu so I can easily view my credits and courses that I have taken.

What parts of Athena would you like to keep unchanged?

5 responses

Simplicity of each button

seeing classes for the next semester ahead of time

the scheduling

All of it.

I like the Student tab of Athena to remain unchanged because it is easy to navigate