University of Colorado Colorado Springs

The UCCS Engineering and Applied Science Website: A Usability Test Report

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Executive Summary

Ms. Olivia McDonald, the User Experience & Interface (UX/UI) Lead Architect at the University of Colorado Colorado Springs, requested the evaluation of the university's College of Engineering and Applied Science website, UCCS EAS, for the purpose of identifying problems and making recommendations for improvement.

Evaluation Methods and Process

My team evaluated the website using a variety of user experience research methods, including surveys, a user persona, usability testing, and user journey mapping. We examined the data from this research to identify user trends and pinpoint issues with the website, including its SEO, organization, and information. With this data, we prioritized the problems by categorizing their level of severity and have made recommendations for improvement. To assess user interaction, we ran five participants through a single usability test we created with the objective of understanding their navigation patterns, information retrieval, and overall experience on the UCCS EAS website. This testing phase provided valuable insights into real user interactions, influencing our subsequent analysis.

Identified Issues

User encountered difficulty locating the UCCS Engineering and Applied Science page from the search engine, especially when compared to other Colorado schools. Prospective applicants faced challenges finding clear information about the Mechanical Engineering program's admissions requirements, leading to external searches. Additionally, users expressed uncertainty about the application process, particularly regarding the existence of a unique application for the Mechanical Engineering program.

Recommendations

To address the identified issues, our recommendations encompass several key improvements. First, we propose implementing strategies to enhance the website's SEO, thereby increasing the visibility of the UCCS Engineering and Applied Science page in search engine results. Additionally, we suggest a thorough review and revision of navigation labels on the EAS page to ensure clarity, facilitating easy access to departmental and program-specific information. Furthermore, we recommend including a clear and prominently placed link or button labeled "Admissions Requirements" within the Mechanical Engineering program page to enhance accessibility. Lastly, for improved communication, we advise clearly conveying whether there is a unique application for the Mechanical Engineering program or if it is part of the general first-year application. It is also recommended to provide a distinct "Apply Now" section on the program page.

Conclusion

The evaluation of the UCCS EAS website revealed significant areas for improvement. By implementing these recommendations, the University can enhance user experience, improve information accessibility, and strengthen the overall effectiveness of the College of Engineering and Applied Science's online presence.

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Purpose

The purpose of this test for the College of Engineering and Applied Science website, UCCS EAS, was to identify problematic areas of the site, including issues with the site's SEO, navigation, and organization. Our preliminary examination of the site suggested potential challenges, such as issues with navigation, hindering users' ability to efficiently find information about the engineering programs. Additionally, we anticipated potential problems with the website's SEO that could impact its visibility and organizational shortcomings that might affect the user's ability to access additional resources for decision-making and seamlessly navigate through program details.

The client's needs are centered around ensuring that users can efficiently find information about the engineering programs, navigate through program details, access additional resources for decision-making, and easily locate and initiate the application process. We crafted a single usability test and ran five participants through that test, coupled with a survey, to obtain this research and evaluate the user experience and accessibility of information for prospective students interested in engineering at UCCS. The usability testing focused on assessing each user's ability to accomplish primary and secondary tasks, while identifying trends based on the users' task efficiency, completion rate, and pain points.

The survey assisted in gathering the users' thoughts towards the website after the testing was complete, including their perspectives on the website's overall design and ease-of-use. The tests and survey significantly contributed to broadening our research and gathering key information for the user persona and the user journey mapping. The resulting user journey map, created using the testing data, helped identify trends, including potential issues with navigation and other aspects of the user experience. These trends, identified through the comprehensive testing process, play a crucial role in informing the recommendations included in this report for improvements to the website.

Understanding the User

Understanding the user is a foundational principle in the realm of User Experience (UX) design, as it lays the groundwork for creating solutions that truly resonate with the target audience. Before delving into the intricate process of crafting user personas, it is imperative to gain profound insights into the individuals who will interact with the product or service. This understanding goes beyond mere assumptions and necessitates a holistic exploration of user behaviors, preferences, and pain points. By taking the time to know the user intimately, designers can tailor their approaches to meet specific needs and expectations. This user-centric approach not only enhances the overall usability of a product but also ensures that design decisions align with the actual experiences and requirements of the intended audience. The subsequent narrative illustrates the significance of this approach by detailing how initial assumptions and personal experiences, while valuable, are enriched and validated through client interviews and data analytics, ultimately contributing to the creation of a robust user persona that guides the user-testing and design refinement processes.

Primary Research: Client Interview

One of the first things we did was interview the client. When we first met with Oliva, our discussion was primarily about the user demographic often seen within the Engineering department, as well as the traffic that is consistent through the website. The consensus was that a high school range student, around age 17, with an interest in engineering would be a primary user. Along with this, Oliva had expressed interest in capturing more out of state users, to increase traffic and overall website performance among common search terms such as "engineering schools in Colorado," so we designed our persona around the primary and secondary users.

To determine the goals for the website, we conducted an in-person interview with Olivia McDonald and used the research from this interview to inform the usability test's scenarios and tasks. To better understand the target demographic and identify some potential issues with the College of Engineering and Applied Science website, we asked Olivia what existing problems she saw with the website and who the primary user is. Based on the interview, we created the user persona to represent one of the website's primary user groups. We used this persona to inform the perception of the users' red routes for the EAS website.

Secondary Research

We were given access to Google Analytics as a powerful tool to gather quantitative data and insights about user behavior. Firstly, we set up relevant tracking metrics to monitor key performance indicators such as page views, bounce rates, and user paths. By analyzing the data, we can identify popular behaviors, entry points, and navigation patterns. This information helps us understand which sections of the website are most frequently visited and where users may be experiencing issues. Additionally, we used this information to inform our task and scenario creation as well as compare it to our user-testing results.

To inform user testing, we prioritized areas of the site that exhibit high bounce rates or drop-offs, indicating potential pain points or areas of confusion. For instance, if the program information page has a high bounce rate, we would conduct usability testing to understand why users are leaving and whether there are specific design or content issues that need improvement. Google Analytics can also reveal the devices and browsers most used by visitors, guiding us to prioritize testing on those platforms to ensure a seamless experience. By combining quantitative insights from Google Analytics with qualitative data gathered through user testing, we gain a comprehensive understanding of user needs and preferences, ultimately informing the design and optimization of the university's engineering website for a more user-centric experience.

Creating the Persona

The initial assumptions and general standards about user behavior, coupled with personal experiences as former members of the primary user group, provided a foundational understanding for our UX research. However, acknowledging the potential limitations of such an approach, we sought to enhance our insights through a client interview with Olivia. Her perspective added crucial nuances and concerns that needed validation during the user-testing phase. With Olivia's input, we gained a more comprehensive view of the primary user group. To further solidify our understanding, we obtained access to Google Analytics for the relevant

webpage. This data allowed us to delve deeper into user interactions, identify patterns, and pinpoint specific pain points. The information gathered from Google Analytics, combined with Olivia's insights, informed the creation of a user persona depicted in Figure 1 (Appendix A). This persona represents a composite of our primary user group, providing a vivid representation of their goals, challenges, and preferences.

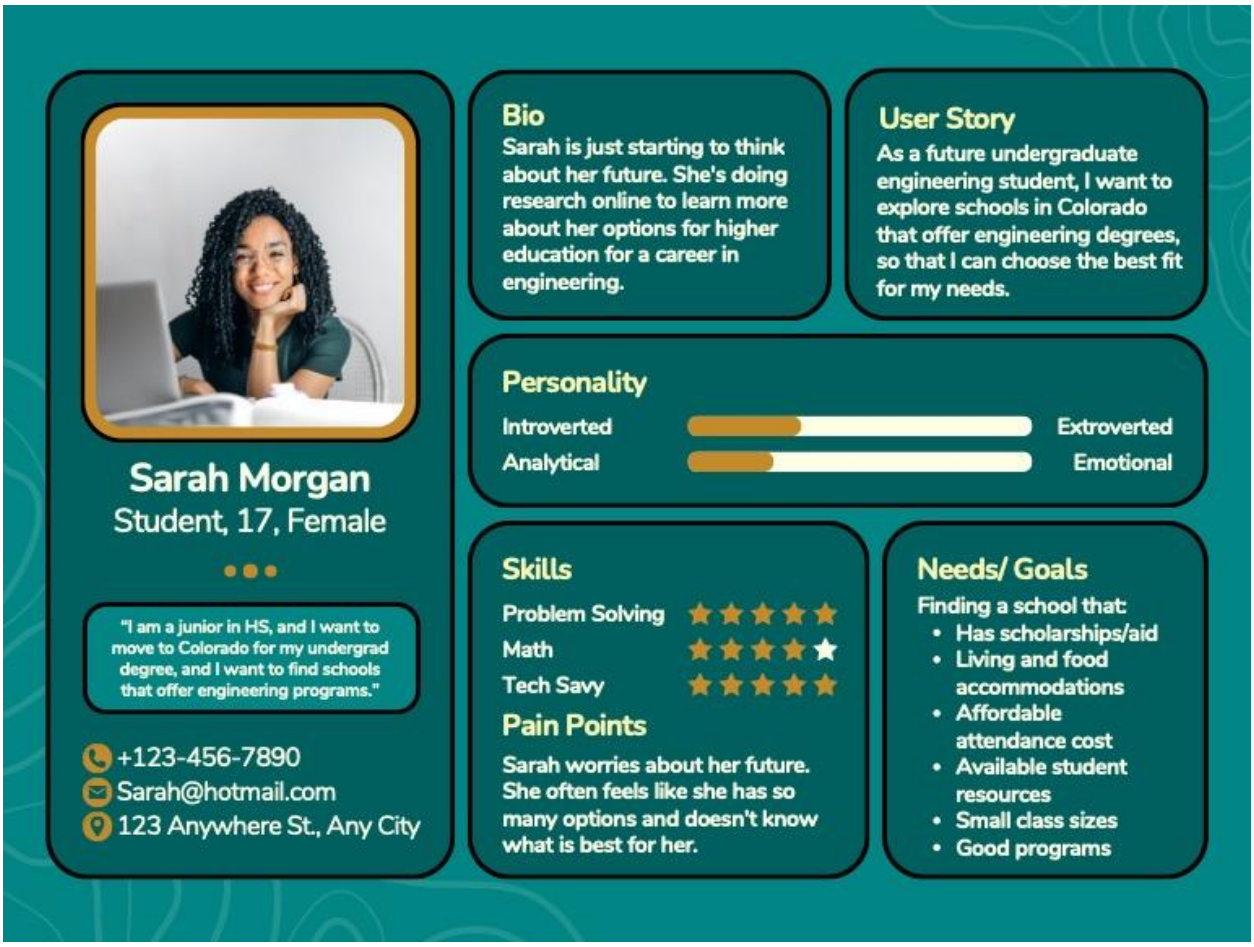


Figure 1. User Persona

The user persona became an invaluable tool in developing scenarios and tasks for the UX testing. By aligning our research findings with the persona's characteristics, we crafted scenarios that truly resonate with our users. Each task was meticulously designed to mirror the persona's potential actions and inquiries, ensuring that the testing process closely simulated the experiences of the actual users. This alignment contributes to a more targeted and impactful UX testing approach, ultimately leading to recommendations that are not only validated by data but also truly address the needs of the end-users.

Methodology

Once we understood the user, we were ready to explore the functions of the website that needed to be tested. The methodology employed in this evaluation involved a comprehensive approach to ensure the exploration of the College of Engineering and Applied Science website was thorough. Our initial focus involved gaining a deep understanding of the target users. By comprehending their needs, behaviors, and expectations, we laid the groundwork for a user-centric testing process. This understanding formed the basis for crafting scenarios that align with real-world user goals, enabling us to simulate authentic interactions during the usability test.

Red Route Matrix

The first aspect of our methodology involved the creation of a Red Route Matrix. This strategic tool helped us identify and prioritize critical user journeys on the website. By focusing on key paths users take to achieve their goals, we gained valuable insights into the website's core functionalities and the areas that most directly impact the user experience. From our in-depth interview with Olivia, we had some direction into where some of these key functionalities fall on our matrix, and we used our completed red route matrix, Figure 2, to help us organize the functions and prioritize them (Appendix B).

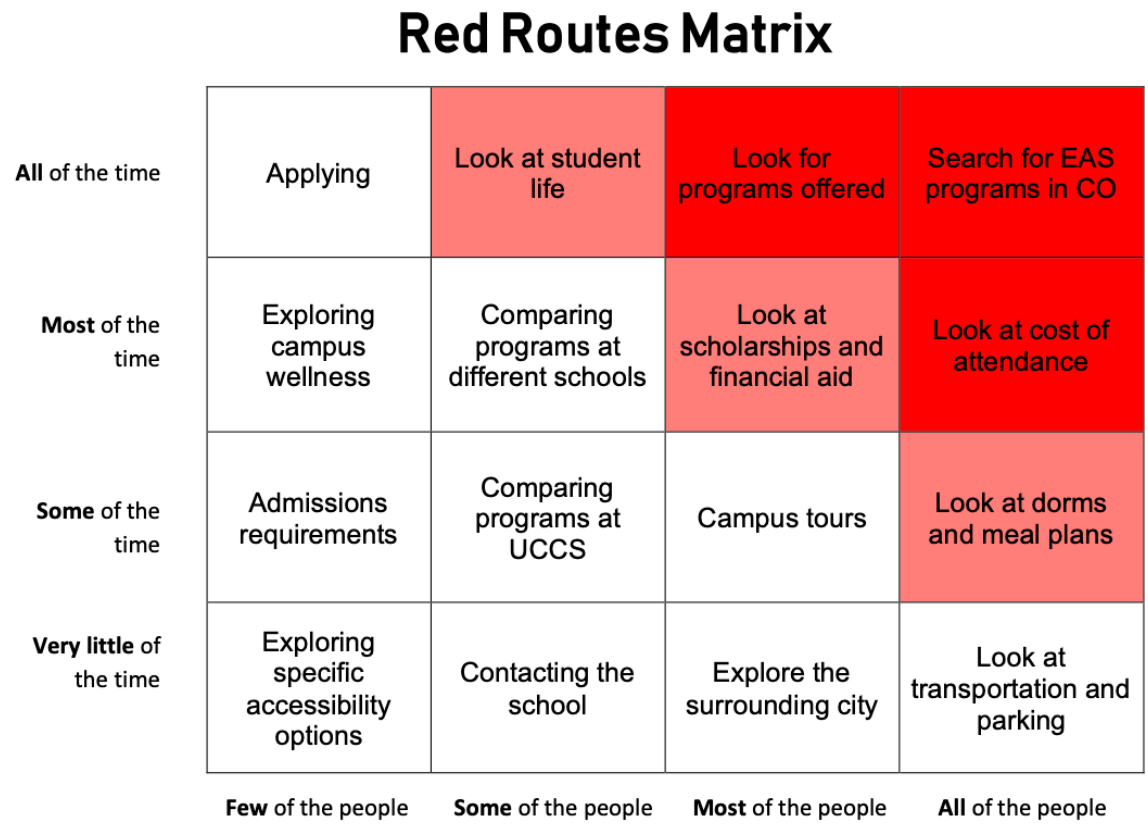


Figure 2. Red Routes Matrix

The red route matrix was crucial to our methodology, as it laid the foundation for crafting scenarios and tasks that truly resonate with our users. By identifying these critical pathways, we

ensured our scenarios mirrored the real-life journeys of our users on the Engineering site. This strategic approach not only made the testing process more authentic but also directly addressed the core functionalities that matter most to our users.

Scenarios and Tasks

In developing scenarios and tasks, we spoke the language of our users, aligning with their needs, preferences, and pain points. We returned to our user persona and kept those characteristics in mind, ensuring that every scenario and task resonated with their expectations and behaviors. In essence, the Red Route Matrix and user persona served as our guides, guiding us through the creation of scenarios and tasks that authentically reflected the user experience on the EAS site.

1st Scenario and Task

You begin your college search by looking up universities in Colorado with engineering programs. Find out if the UCCS page will show up on the first page while searching for engineering schools in Colorado.

Find if UCCS has an engineering page from your search engine.

Red Route Connection

This scenario and task align precisely with the most critical part of the Red Routes Matrix, particularly "Search for EAS programs in CO." Considering the persona's emphasis on findability, this task effectively addresses a pivotal step in the user journey.

2nd Scenario and Task

You found the UCCS Engineering program. You are wondering if there is a mechanical engineering program.

Find out if UCCS has a mechanical engineering program.

Red Route Connection

Scenario and Task 2 came from one of the two critical areas of the Red Routes Matrix, "Look for programs offered." This task and scenario were written in a way to make a natural flow from one task to the next. Finding specific programs offered was an organic next step for our users.

3rd Scenario and Task

You are interested in the mechanical engineering degree at UCCS but want to learn more information about it and talk to someone in the department.

Find the email of the mechanical engineering program assistant.

Red Route Connection

Scenario and Task 3 stems from the neutral area of the Red Routes Matrix, specifically "Contacting the school." It directly addresses a critical user need – the ability to connect with the program and College of Engineering – in language reflecting the persona's likely inquiry.

4th Scenario and Task

You are looking for specific admissions criteria for the mechanical engineering program to see if you qualify for the program.

Find what GPA and SAT/ACT score is required for admission into the mechanical engineering program at UCCS.

Red Route Connection

Task and Scenario 4 came from the neutral area of the Red Routes Matrix "Admissions requirements." The task and scenario were formed to see the user's ability to find the qualifications to be admitted into the engineering college. This task was the most difficult one for our users to complete.

5th Scenario and Task

You have decided that UCCS is a good fit for you, and you want to apply. Is there a different application for the Mechanical Engineering program compared to the other undergraduate programs?

Determine if there is a specific application for the Mechanical Engineering program.

Red Route Connection

Scenario and Task 5 arise from one of the neutral areas of the Red Routes Matrix, focusing on the "Applying" stage. Like Task 3, it serves as a test of the overall usability and functionality of the website, assessing its capability to facilitate "quick action" tasks seamlessly with language suited to the persona's likely considerations.

Recruiting Participants

In selecting participants for our usability testing, our recruitment process was meticulous and designed to align with the characteristics of our persona. We aimed to ensure diversity while capturing individuals who closely represented prospective students interested in engineering at UCCS.

Our persona, reflective of potential engineering students, guided our participant selection. We sought individuals who mirrored the persona's demographics, interests, and preferences. This alignment was crucial to gather insights that resonate with the actual user base, enhancing the relevance of our testing outcomes.

The recruitment process involved reaching out to potential participants with a prefabricated email that outlines the test and how they will be asked to help (Appendix C). Included in this email was our consent form, contact information, and availability for completing the test.

The careful selection of participants, grounded in the characteristics of our persona, aimed to enrich the testing process, and provide insights that are not only meaningful but also applicable to the broader audience of prospective engineering students at UCCS.

Our Participants

The age, background, level of comfort using the internet, and the level of familiarity with university websites for each user are listed below:

User 1

Age: 19 years old
Background: Sophomore in college
Comfort Using the Internet: 5-Comfortable
Familiarity with University Websites: 3-Neutral

User 2

Age: 20 years old
Background: Junior in college
Comfort Using the Internet: 5-Comfortable
Familiarity with University Websites: 4-Somewhat Familiar

User 3

Age: 20 years old
Background: Sophomore in college
Comfort Using the Internet: 5-Comfortable
Familiarity with University Websites: 3-Neutral

User 4

Age: 20 years old
Background: Junior in college
Comfort Using the Internet: 5-Comfortable
Familiarity with University Websites: 5-Familiar

User 5

Age: 22 years old
Background: Recent college grad (Bachelor's)
Comfort Using the Internet: 5-Comfortable
Familiarity with University Websites: 4-Somewhat Familiar

Administering the Test

Over the course of three weeks, we conducted our usability test (Appendix E) using the five participants within the target demographic. We prescheduled each participant for a time slot and contacted them the day of the test as a reminder. The tests were conducted in a quiet environment with no distractions on a laptop computer with approximately a 13-inch screen. The laptop was used for accessing the website through Google Chrome and for screen recording the entire test. In addition to the laptop, the test was video and audio recorded with another device.

When each participant arrived, we greeted them and sat them down in our designated testing

area. We had each participant sign the consent form (Appendix D) and gave a brief introduction to the test and the Think-Aloud Protocol, then gave each user the scenario and task.

To begin the test, we had the participants share their first impressions of the website before beginning the task, including their thoughts about the design and accessibility of the site. As each participant completed the tasks, we observed, recorded, and took notes.

After the test, we had each participant complete a post-test System Usability Scale (SUS) survey (Appendix F) and a few post-test interview questions, before we thanked the participants and escorted them from the testing area.

Data Collection

Our data collection process was designed to capture both quantitative and qualitative insights, providing a comprehensive understanding of the user experience during the usability testing of the College of Engineering and Applied Science website.

Homepage Tour

At the beginning of the testing session, participants were asked to examine the EAS homepage without clicking on any links. This initial phase aimed to gather insights into users' first impressions of the website. Participants were encouraged to share their thoughts on the overall layout, visual appeal, and ease of navigation. A few of the key questions asked during this exercise include, “What is the first thing you notice?” and “Who is this site intended for?” This qualitative approach helped uncover immediate user sentiments and allowed us to gauge the website's initial impact.

Single Ease Question (SEQ) Survey

Following the completion of each task, participants were asked to rate the perceived difficulty of the task on a scale from 1 to 7 using the Single Ease Question (SEQ) survey. This quantitative measure provided us with a numerical assessment of task difficulty.

System Usability Scale (SUS) Survey

Upon concluding all five tasks, participants were presented with the System Usability Scale (SUS) survey. This ten-question survey is a standardized tool used to assess the overall usability of a system. Questions covered a range of aspects, including perceived complexity, learnability, and user satisfaction. Participants were asked to rate their agreement with each statement on a scale from 1 to 5. The SUS survey provided a comprehensive evaluation of the website's user-friendliness, allowing us to gather qualitative insights into participants' general perceptions of the site.

This multi-faceted approach to data collection, combining qualitative feedback and quantitative metrics, ensures a well-rounded assessment of the user experience on the UCCS EAS website. The diverse range of data collected will inform our recommendations for enhancing the website's usability and addressing specific pain points identified during the testing process.

Findings

The findings and data we gathered from our usability test with our five users are outlined and discussed below (Appendix G):

Task 1

Scenario and Task

You begin your college search by looking up universities in Colorado with engineering programs. Find out if the UCCS page will show up on the first page while searching for engineering schools in Colorado.

Find if UCCS has an engineering page from your search engine.

	Observed Success	Observed Confidence	Completion Time	Ease Rating
User 1	Yes	Confident	42 sec	2
User 2	Yes	Confident	33 sec	1
User 3	Yes	Confident	15 sec	1
User 4	Yes	Confident	16 sec	1
User 5	Yes	Unsure	35 sec	7
Overall Score	100% Observed Success	80% Confident 20% Unsure	Average Time: 28.2 sec	Average Rating: 2.4

User Behaviors

Behaviors exhibited within Task 1 follow a trend of specificity. Users were more successful when they used specific keywords in their search queries. For example, User #1, who used the keywords “universities in Colorado that have engineering programs,” found the UCCS website quickly and easily. However, despite this, User 1 was still not directed to the right site. User #2 had to scroll for longer than User #1 but still found the website, which resulted in the same false positive link as User #1. The same concept applies to User #5 who searched up “Colorado Engineering Schools,” though this user did not initially find the EAS page using this search and took longer to find the information.

User Quotes

User #3 commented on the format of the search results and requested specific naming details to assist him in finding the results. User #5 also commented on this with the words, “I have to scroll all the way down past the first page to see the UCCS Home page.” This comment was in referral to the lack of findings regarding the EAS page and UCCS pages.

Discussion

Once again, a primary observation within this task is that users tend to be more successful when they use specific keywords in their search queries. As referred to in the Analysis section, for

Task 1, a primary observation between users is that most users ended up on the UCCS homepage instead of the EAS page. This suggests that the EAS page may be difficult to find for users who are not familiar with the website. More so, the UCCS page is listed as the last school in Google results, sitting below Colorado School of Mines, UC Boulder, UC Denver, and Colorado State University. Another notable observation is the way users look for information. When searched, a Google chart recommends three to four universities based on their distance from the user. For users whose location is close to Colorado Springs, UCCS is listed at the top of this list. Users who read the chart before clicking on a link were more likely to find the website they were looking for. For example, User #1, who read the chart before clicking on a link, found the UCCS website quickly and easily. The average time amongst users for this task was 28.2 seconds, indicating a stutter within the task itself that left users taking longer than likely necessary. The average rating on our SEQ was a 2.4 out of 7. For future reference, a score of 1 is characterized as "Very Easy" and a 7 is characterized as "Very Difficult."

Task 2

Scenario and Task

You found the UCCS Engineering program. You are wondering if there is a mechanical engineering program.

Find out if UCCS has a mechanical engineering program.

	Observed Success	**Observed Confidence**	**Completion Time**	**Ease Rating**
User 1	Yes	Confident	5 sec	1
User 2	Yes	Confident	3 sec	1
User 3	Yes	Confident	31 sec	1
User 4	Yes	Confident	7 sec	1
User 5	Yes	Confident	9 sec	1
Overall Score	100% Observed Success	100% Confident	Average Time: 11 sec	Average Rating: 1

User Behaviors

User Behavior was varied within this specific task. The most prominent example is with User #3, who found a separate tab for degrees and programs. The user initially backed out of the engineering page, having not found the link they wanted. They also noted the separation between "Degrees and Programs" and "Programs." User #4 Scrolled down on the EAS homepage and found the Mechanical Engineering program under the "EAS Departments" tab. Primarily, Users 1, 2, and 5 all went directly to the "Degrees and Programs" tab and were able to find the Mechanical Engineering program in an efficient time.

User Quotes

User comments vary between each test; however, most of them indicate that there were similar user thoughts and confusions. User #3 commented on the labels being clean, though cluttered in a sense of “many.” User 4, upon finding the Mechanical Engineering program, commented “They have Mechanical Engineering as the first thing...that's interesting.”

Discussion

Within the findings of this task, three different users developed points that prove noteworthy in the observation. User #3 commented on the clean but cluttered appearance of the “Degrees and Programs” section, indicating potential for improvement. User #4 noted the placement of “Mechanical Engineering” as the first department, suggesting potential influence on user perception. User #5 quickly found the program in the quick links, demonstrating efficient navigation once the location was identified. Users who were familiar with the website layout found the program more efficiently, as users who were more familiar with university websites had an easier time understanding the typical layout, and therefore navigated this task faster. Like Task 1, all users successfully completed the task of finding the Mechanical Engineering program. From this, it is clear that users found the “Degrees and Programs” section to be cluttered, suggesting room for improvement in website clarity. The average completion time was 11 seconds, and the average rating on our SEQ was a 1 out of 7.

Task 3

Scenario and Task

You are interested in the mechanical engineering degree at UCCS but want to learn more information about it and talk to someone in the department.

Find the email of the mechanical engineering program assistant.

	Observed Success	**Observed Confidence**	**Completion Time**	**Ease Rating**
User 1	Yes	Confident	1 min, 3 sec	2
User 2	Yes	Confident	1 min, 16 sec	2
User 3	Yes	Confident	7 sec	1
User 4	Yes	Unsure	1 min, 40 sec	4
User 5	Yes	Confident	13 sec	1
Overall Score	100% Observed Success	80% Confident 20% Unsure	Average Time: 51.8 sec	Average Rating: 2

User Behaviors

User observation in Task 3 suggests that users were conflicted on whether they had found the right email, and there were varying methods taken to get there. User #3, for example, quickly scrolled to the bottom, noted the accessibility of that choice, and questioned the accuracy of the contact information. Scrolling to the bottom was a common but inefficient strategy for some

users. For example, users #1 and #2 both scanned the page, scrolled to the bottom, and hesitated while scrolling, indicating a similarity between three of the users and their habits. On average, users within this test relied on efficient navigation, using familiar locations based on their prior knowledge of university websites and website design in general.

User Quotes

User comments ranged broadly in this task. User #2 hesitated a couple times scrolling down, making a few comments regarding the task, such as, “I thought something else was it.” User # 4 expressed confusion as they navigated all the navigation links, making comments such as, “There’s an assistant professor?” and, “Would it be under ‘Staff’?” Despite this, the user did complete the task.

Discussion

The observations and discussion surrounding Task 3 comes in the form of website structure and familiarity. Users who immediately scrolled to the bottom of the page found the contact information quickly, under the assumption that standard contact information is located at the bottom of a page. Although many users instinctively scrolled down to the bottom, it was not the most effective way for some, particularly Users 1 and 2. This expands on the inefficiency for certain users, not having any primary indicators to point them in the right direction of the program assistant. User #4's struggles with navigation suggest further that there might be challenges with the website's layout. Displaying contact information prominently on individual program pages could be helpful for users and grant them more immediate access. The average completion time for users was 51 seconds for this task, with an average SEQ score of 2.

Task 4

Scenario and Task

You are looking for specific admissions criteria for the mechanical engineering program to see if you qualify for the program.

Find what GPA and SAT/ACT score is required for admission into the mechanical engineering program at UCCS.

	Observed Success	**Observed Confidence**	**Completion Time**	**Ease Rating**
User 1	Yes	Unsure	2 min, 14 sec	6
User 2	No	Unsure	1 min, 37 sec	6
User 3	Yes	Confident	15 sec	2
User 4	No	Unsure	4 min, 30 sec	6
User 5	No	Unsure	7 min, 35 sec	7
Overall Score	40% Observed Success	20% Confident 80% Unsure	Average Time: 3 min, 14 sec	Average Rating: 5.4

User Behaviors

User behaviors across all five participants were consistently negative and displayed frustrated while completing this task. Common user behaviors were consistent with navigation frustration. All users attempted to find the information on the website directly, primarily through scanning and scrolling, assuming the information would be readily available. User #4 showcased a hesitant thought process during the search, including potential paths not explored and expressing anxiety about missing the information. Users across the board expressed a far clearer disconnect compared to that in Task 3 regarding navigation. They explored different sections and subsections without clear success, leading to three users being unable to complete the task.

User Quotes

User #5 Provided an in-depth verbal response to the task, expressing multiple frustrations with it. These include comments such as, “This sucks,” “I’m assuming it’s in ‘Degrees and Programs’,” and, “I would look it up in a new tab.” The user also openly expressed that, “They need to make this easier.” User 4 was equally as verbal as User 5 in this regard, mentioning in more detail that, “I think at this point, I would have just made a new tab and typed in ‘what do I need’ on Google,” and, “I think it should be on this page [Undergraduate], like on the Mechanical Engineering page.” Users are far more expressive in this task, issuing their clear frustration with it.

Discussion

Summarizing this task reveals the issue of extremely important information on the EAS website proving challenging to find for most users, in this case, it is problems seeking mechanical engineering admission requirements. Only one user succeeded while others faced varying degrees of difficulty. Admission requirements were not easily discoverable on the Mechanical Engineering page or through intuitive pathways. Therefore, it became an ineffective search for users. Scrolling and scanning proved insufficient for some users, leading to frustration and ultimately a reliance on search engines instead of the page itself. The average user completion time for this task was 3 minutes and 14 seconds, and the SEQ score average was 5.4.

Task 5

Scenario and Task

You have decided that UCCS is a good fit for you, and you want to apply. Is there a different application for the Mechanical Engineering program compared to the other undergraduate programs?

Determine if there is a specific application for the Mechanical Engineering program.

	Observed Success	Observed Confidence	Completion Time	Ease Rating
User 1	Yes	Confident	35 sec	3
User 2	Yes	Confident	1 min, 13 sec	5
User 3	Yes	Unsure	42 sec	2
User 4	No	Unsure	3 min, 30 sec	6
User 5	Yes	Unsure	3 min, 29 sec	5
Overall Score	80% Observed Success	40% Confident 60% Unsure	Average Time: 1 min, 54 sec	Average Rating: 4.2

User Behavior

User behavior in this task indicates a high rate of confusion regarding clarity. Most users seemed unclear whether the application they found was the correct one, and all the users second-guessed if they found the correct information. Several users, including users #1 and #2, expressed confusion during navigation about whether the general first-year application applied to the Mechanical Engineering program, second-guessing their search results as they went. User #5 experienced a dead end. They encountered potential drawbacks of the "Undergraduate Program" link redirecting back to the main page instead of offering application information. This user became lost on the page, taking the longest to complete it with a total of three and a half minutes. Users behaved in a way that would indicate they did not properly understand what they were looking for and the labeling was not clear enough.

User Quotes

Users expressed a variety of comments within this task, such as User #3, who expressed the most initial confusion — "I didn't realize I was still on Engineering." They implied their confusion was a result of blending styles. User comments were sparse for this task, but User #4 summarized the most important information gained from this task — "I don't know. It is an application, but is it specific to mechanical or is it a part of the first-year general application?"

Discussion

SEQ scores are generally lower than the previous task, ranging from 2-Still Easy to 5-Somewhat Difficult. This suggests the "Apply Now" process was easier for most users to initiate, although some still encountered challenges**.** Users navigated the site under the general impression of finding an "Apply Now" button, with some locating it, while others struggled more, seemingly consistent with tasks requiring specific admissions related information. Most users seemed unclear whether the application they found was the right application due to website blending and clutter. The most important and critical finding with this task was whether the application was specific to Mechanical Engineering or not. The average completion time for this task was just under two minutes, and the SEQ score average was 4.2.

This task was one of our most "interesting," as it revealed many underlying user experience issues throughout the site, and because of this, it shaped our User Journey Map (Appendix H). This one task involves many steps that mirror our other four scenarios and tasks. Figure 3

outlines these steps or “Stages.” The steps include searching for engineering schools in Colorado, discovering the UCCS Engineering and Applied Science page, navigating through the EAS page to explore departments and programs, exploring the Mechanical Engineering program, and seeking information on Mechanical Engineering admissions requirements.

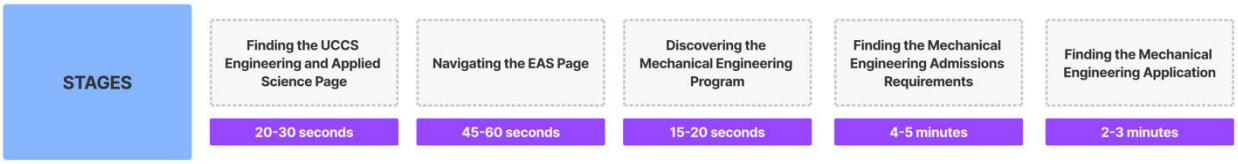


Figure 3. Section of the User Journey Map outlining the stages of our user’s journey through this task.

This user journey is centered around the user's pursuit of information and engagement with the Mechanical Engineering program at UCCS, from initial awareness to the eventual application process. The map highlights key touchpoints, emotions (See Figure 4), and potential areas for improvement to enhance the overall user experience during this specific journey.

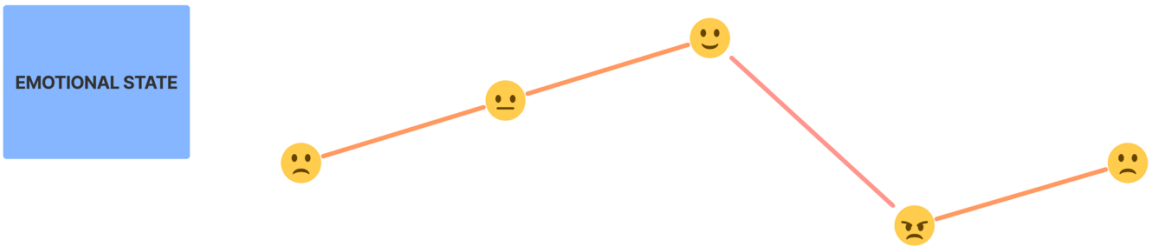


Figure 4. Section of the User Journey Map outlining the emotional state of the user at each stage of the task.

As indicated in the User Journey Map, user emotional state varied from frustrated to content very quickly in Task 5. Our user journey map represents the user’s path through the process of exploring and applying to the UCCS Mechanical Engineering program.

Analysis

User testing revealed glaring flaws on the website, prompting immediate action. Finding the site itself proved to be an obstacle, as search engines led users to the wrong link entirely. On top of this, the consistency of search results varies greatly across users in terms of search priority.

Even more concerning, the critical task of accessing admission requirements was a struggle for users, frustrating them, and in a real-world scenario, jeopardizing potential enrollments. Adding to the confusion, application information overflowed with clutter, and even locating basic contact details felt like a complicated hunt to most users.

The website does, however, provide some benefits to users. The menus navigated smoothly, the information was relatively clear when the users found it, and user difficulty remained below an average of 5. This indicates that there are pain points, but the website is not impossible to navigate and successfully use. Prioritizing improvements is key, and we recommend the

following suggestions: making the site searchable, streamlining admissions, decluttering applications, and enhancing contact accessibility.

User feedback paints a picture of a visually appealing website with underlying usability issues. The homepage does not offer any information about admissions, tuition, or the application process. The site provides useful content but lacks some information in delivering the entire message. Overall, the users expressed that the site was easy to use but could be made significantly easier to use with quick access buttons or links.

Critical Tasks & Summary

With our findings in mind, we categorized the tasks and their results by priority using a scale of severity. Our scale includes the following categories: no change needed, minor, serious, and critical. No change needed indicates that the task was successfully completed by all the users, and there is no user experience concern found. Minor issues represent noticeable problems that do not severely impact the overall usability of the site, but they might be annoying or cause slight inconvenience. They are not critical to user satisfaction and the main functionalities of the site. Serious issues are more significant problems that affect the usability of the website and could potentially hinder the user experience. These issues should be addressed to improve the overall usability of the system. Critical issues represent the most severe problems that significantly impact usability. They may prevent users from completing essential tasks and cause immense frustration.

Task 1 is a critical issue as the main issue expressed by Oliva involved whether the website was showing up for users when searched for. The findings for Task 1 show that, concerningly, users not only had some issue finding the website, but that the link they did find did not bring them to the right page at all, which would nullify any interest users have.

Task 2 is categorized as “no change needed,” as the menu was relatively clear to users and contained the shortest completion time along with the most clarity between users upon finding the information.

Task 3 is a minor issue as contact information should be readily available and users seemed to struggle finding it consistently as it had the third highest completion time out of tasks, as well as a varied method in how this was found, and further uneasiness on whether it was the right information.

Task 4 is categorized as a critical issue because the admission criteria for the mechanical engineering program was not accessible on the mechanical engineering page. Four of the five users found this task difficult to complete and had to resort to completing the task outside of the EAS website, more specifically through a search engine.

Task 5 is labeled as a serious issue due to the confusion between users about application clarity and cluttering of information. This task carried the second longest completion rate on average and the second most “incompletes.”

Top Concerns

Users collectively expressed a desire for better organization and improved accessibility, highlighting the need to address information overload. This crucial feedback serves as a cornerstone for our exploration into three key areas: Space and Clutter, Link Confirmation and Organization, and Information Merging and Cleanup.

In the following sections, we delve into the top concerns revealed through our testing data, shedding light on the issues identified and their implications for the website's design and functionality.

Space and Clutter

Overall, users suggested within the post-test interview that better organization and accessibility would improve the website. They agreed that information was cluttered, and links were either excessive or unnecessary. They noted that smoother navigation and task completion could be achieved by compressing the load of information into a more generalized hub. This demonstrates that a primary issue is information overload, and that issue ought to be addressed when considering reworking the website.

Link Confirmation and Organization

The second most common issue amongst users was the accuracy of links and their organization. In addition to the critical issue regarding the website link being primarily inaccurate, users also emphasized more straightforward links and pathways to access specific information, most commonly admissions and programs. It is noted that most users found this link design inconsistent, making tasks more difficult to complete.

Information Merging and Cleanup

Most users consistently agreed that the site, regardless of links and information, was simply far too tight and rigid. Taking a quote directly from our notes, “The site is visually organized but functionally and informationally disorganized.” Users consistently expressed a concern that the website lacks a clear information flow, making it challenging for them to engage effectively. Another example from our notes states that all information “should be readily accessible on EAS site, especially when some of the information is very specific to an EAS program.”

Recommendations

Considering the outcomes of our investigation, we recommend addressing the following usability issues as a priority:

Task Accessibility

Four of the five tasks assigned to users were successfully completed in the bottom section of the page. Given the prevalent suggestion to “re-organize the page,” we propose a crucial change: relocate the actions necessary to complete each task to the top third of the EAS page. This adjustment aims to enhance user experience by placing key functionalities within easy reach,

optimizing efficiency in task completion.

This leads us to suggest the following changes to make task completion efficient:

Review and Revise Navigation Labels on the EAS Page

Conduct a comprehensive review of the navigation labels on the EAS page. Ensure that they are intuitive, descriptive, and align with user expectations. By refining these labels, users can easily identify and access the sections relevant to their tasks, minimizing confusion and enhancing the overall navigation experience. Figure 5 provides an example of how a competitor's website is demonstrating this suggestion.

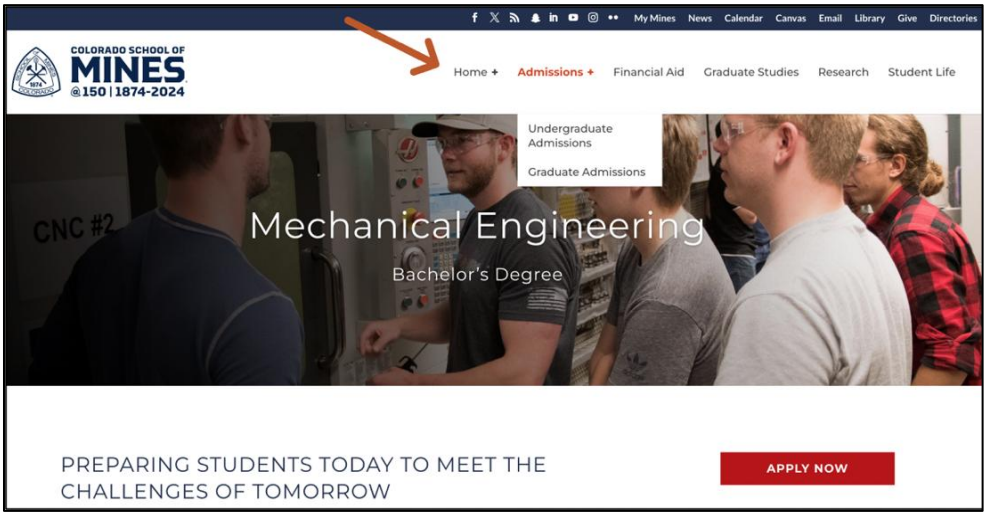


Figure 5. Example of organized navigation from the Colorado School of Mines Mechanical Engineering website.

The example above provides a clear, concise navigation bar for their users with an equally as clear and concise drop-down menu. By minimizing the number of options in the navigation, users will feel less overwhelmed and be able to find required information more efficiently.

Provide a Distinct "Apply Now" Section on the Program Page

Establish a dedicated and conspicuous "Apply Now" section on the program page. Additionally, consider incorporating pertinent information such as "Degree Requirements" or "Admissions Criteria" within this section. This modification serves to consolidate crucial information, making it readily accessible to users interested in applying. Figures 6 and 7 provide an example of how a competitor's website is demonstrating these suggestions.

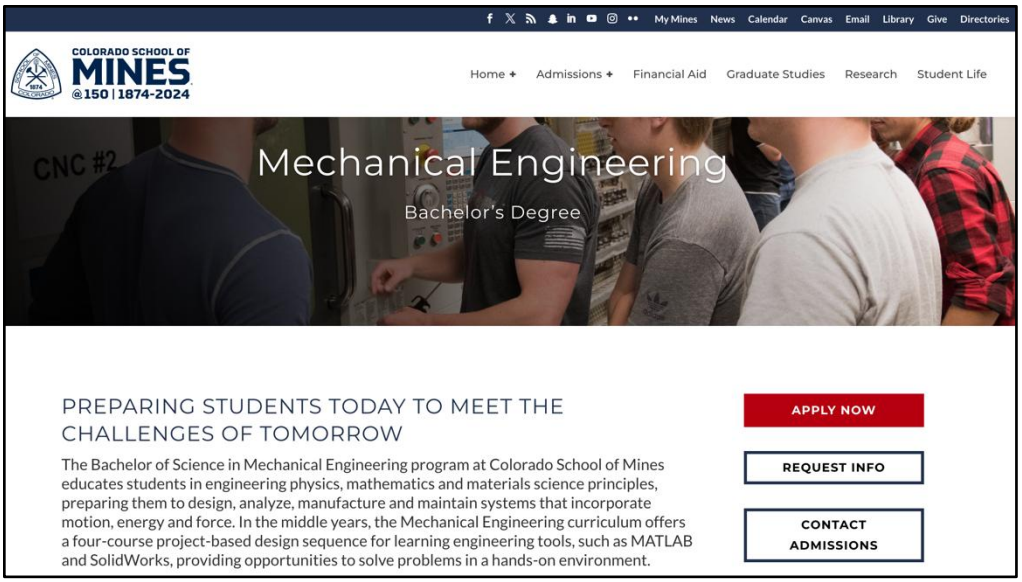


Figure 6. Example of dedicated "Apply Now" section from the Colorado School of Mines.

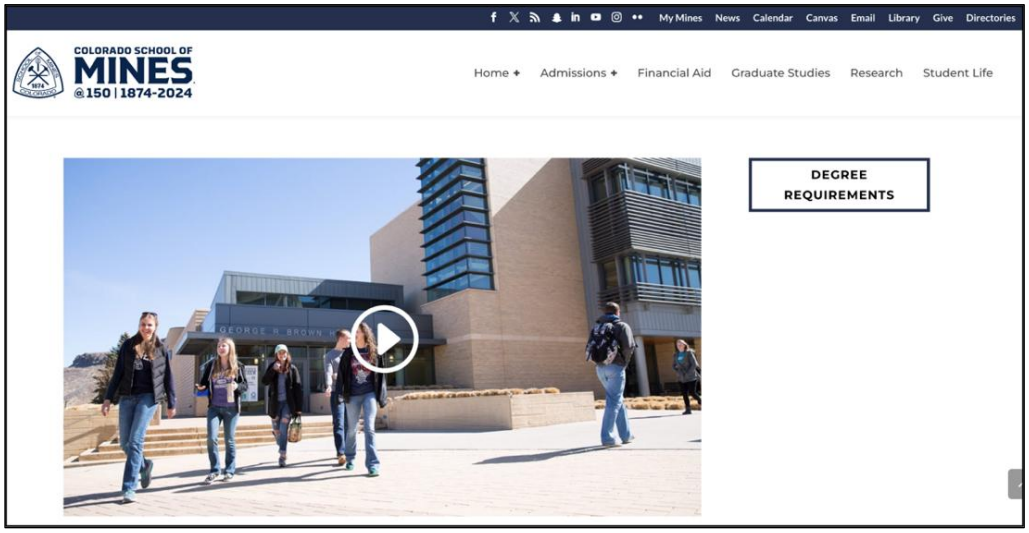


Figure 7. Example of clear "Degree Requirements" section from the Colorado School of Mines.

The examples above show how these quick links and action items are prominently displayed to the user in a bold, organized way. By centralizing these elements, prospective applicants can efficiently gather the necessary details, fostering a more streamlined and user-friendly application process.

SEO Improvement

The second priority for enhancing usability involves improving the website's Search Engine Optimization (SEO). Users expressed confusion when clicking on links labeled "engineering" that directed them to the homepage. To mitigate this issue, it is imperative to refine the website's SEO strategy, specifically, by focusing on aligning common search terms such as "engineering schools in Colorado" with the corresponding engineering-specific page. This not only resolves

user confusion but also elevates the page's ranking among other universities in Colorado, ensuring that users are directed to the relevant content they seek from search engine results. Figure 8 demonstrates what our current ranking is on Google Chrome, which has UCCS listed as the last university, and how the link directs users to the UCCS homepage rather than the EAS website.

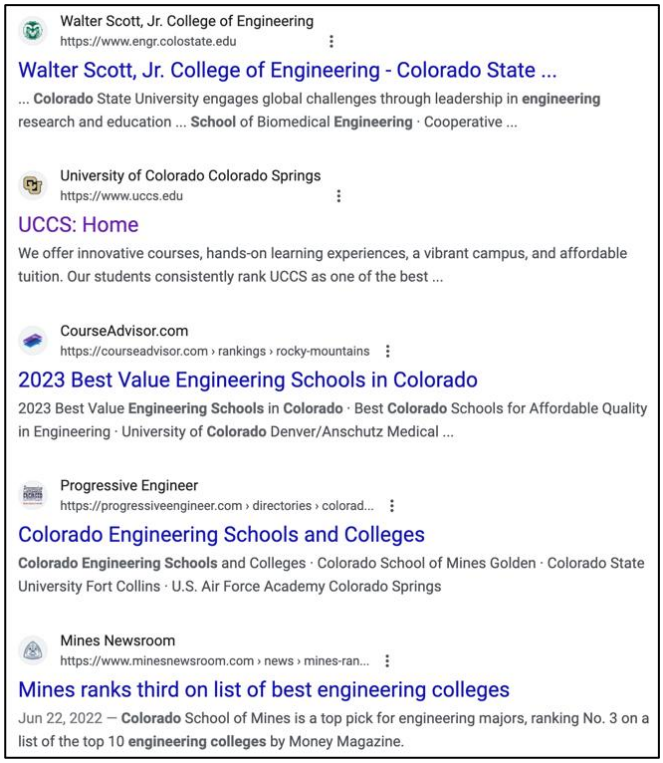


Figure 8. Display of "Colorado engineering schools" Search Results

With this issue in mind, Figures 9 and 10 below provide an example of how a competitor's website is successfully implementing this suggestion.

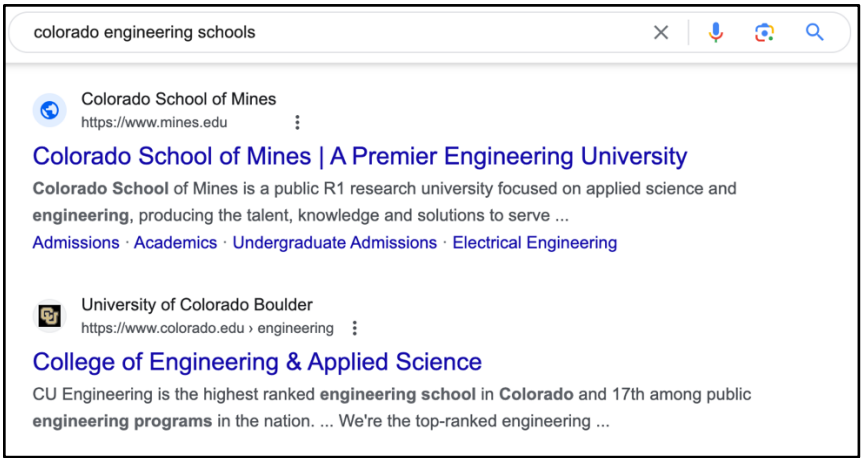


Figure 9. Display of Colorado engineering schools with enhanced SEO.

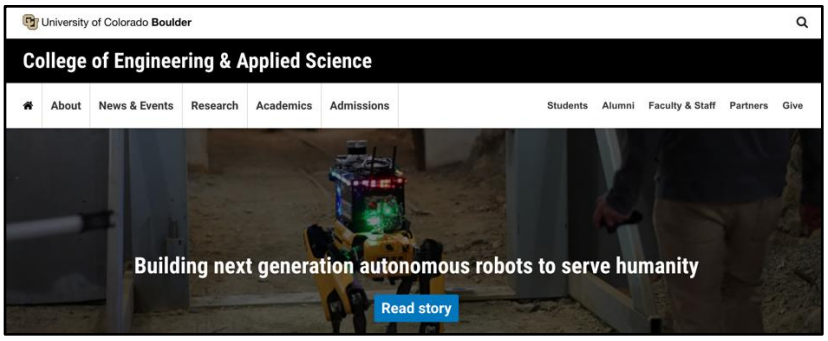


Figure 10. Display of UC Boulder's Engineering website, where users are directed from Google's search results.

The examples above show how other universities in Colorado have refined their SEO. When the user uses keywords in their search, such as "engineering," "Colorado," and "college," their engineering site comes up as one of the first university sites in the search results. The link given takes the user directly to the university's engineering site, making it easy for the user to find the school and information they need quickly and effortlessly.

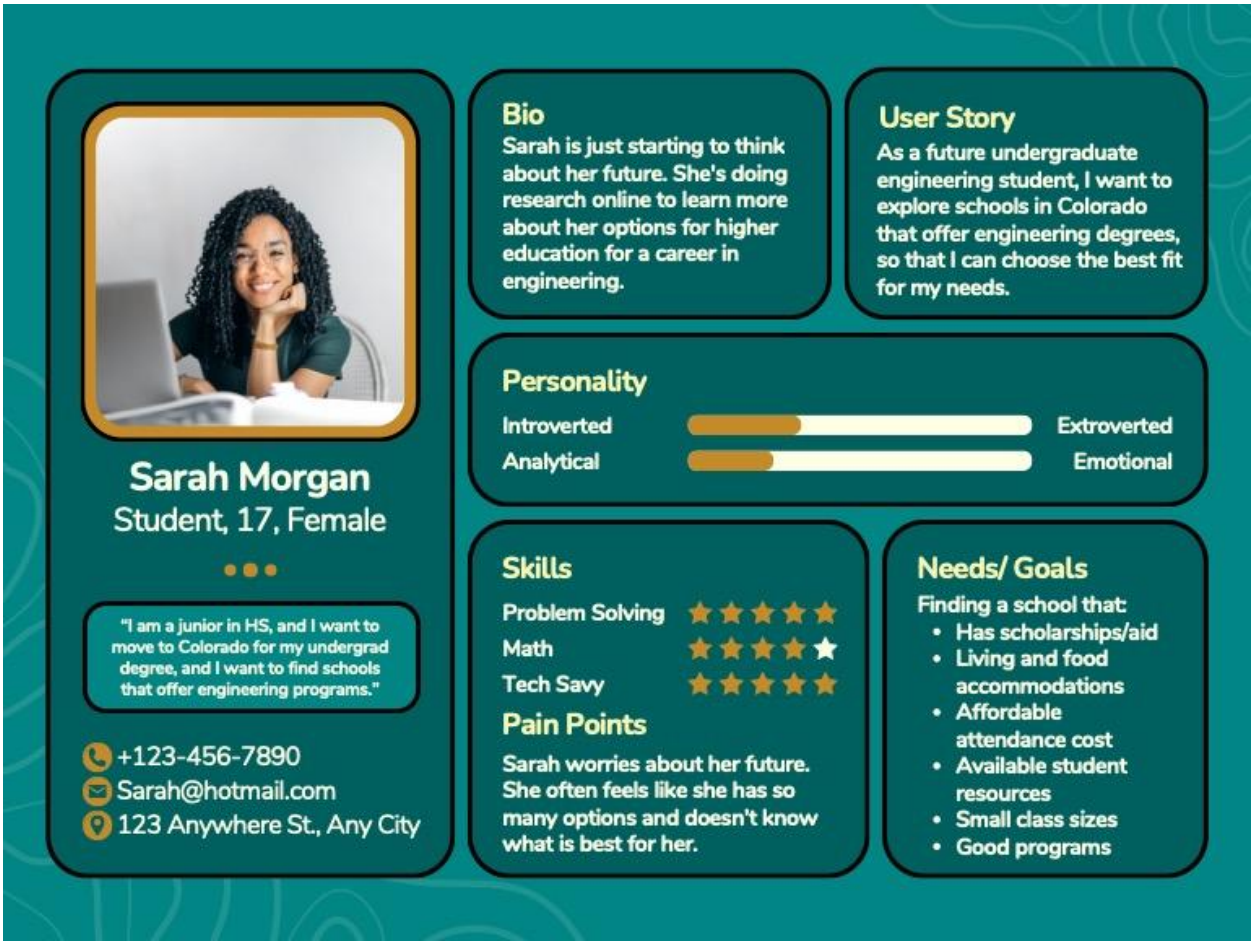
Conclusion

Gathering all this information together, it is clear that no website is perfect, and the UCCS College of Engineering and Applied Science website is no exception to this finding. Users showcased a range of completion rates and strategies in navigating the website. Despite having different approaches, they encountered similar challenges, emphasizing the necessity for clearer organization and easier pathways to specific information across tasks. Their feedback consistently highlighted the need for a more user-friendly and intuitive website design.

In essence, the challenges revolve around difficulties in specific page access, navigating the sites layout efficiently, and the lack of streamlined pathways to crucial information, especially regarding admissions and program specific details within the EAS department. Users often relied on search engines or general site navigation menus to find information, highlighting a preference for direct access to relevant content. Finally, users simply found the website's layout cluttered, making it difficult to locate information within a proper time frame. The findings of this report conclude a need for improved website organization, accessibility, and search engine optimization.

Appendices

Appendix A: User Persona



Appendix B: Red Route Matrix

Red Routes Matrix

All of the time	Applying	Look at student life	Look for programs offered	Search for EAS programs in CO
Most of the time	Exploring campus wellness	Comparing programs at different schools	Look at scholarships and financial aid	Look at cost of attendance
Some of the time	Admissions requirements	Comparing programs at UCCS	Campus tours	Look at dorms and meal plans
Very little of the time	Exploring specific accessibility options	Contacting the school	Explore the surrounding city	Look at transportation and parking
	Few of the people	**Some** of the people	**Most** of the people	**All** of the people

Appendix C: Participant Email

Subject: Help Us Improve Our Website – Your Input Matters!

Dear (Recipient's Name),

We hope this email finds you well. We are students at the University of Colorado Colorado Springs currently enrolled in a User Experience research class. As part of our coursework, we are conducting a website usability test to assess how well our assigned website functions from a user's perspective.

We are reaching out to you because we believe your insights and opinions are valuable in helping us improve our website. Your feedback can make a significant impact, and we would be incredibly grateful if you could spare approximately 30 minutes of your time to meet with our group at (our testing location) between November 10th and December 1st.

The test itself is straightforward and hassle-free. You will be asked to perform 5-6 specific tasks on the website, such as finding information, navigating menus, or completing forms. The purpose of this test is not to evaluate you but to evaluate the website's usability. Your feedback will be essential in identifying areas for improvement and enhancing the overall user experience.

Before the test, we kindly request that you review and sign the attached consent form. This form ensures that you are fully informed about the nature of the study and your rights as a participant.

(Attached consent form)

If you are willing to participate, please let us know your availability between November 10th and December 1st, and we will schedule a convenient time for the test. Your input will be instrumental in helping us enhance our website and gain valuable insights into its user experience.

Thank you for considering our request, and please don't hesitate to reach out if you have any questions or want more information. We look forward to working with you to improve the online experiences of many users.

Best regards,

(Your Name)
(Your Contact Information)

Appendix D: Participant Consent Forms

Consent and Recording Release Form - Adult

I agree to participate in the Usability Study of the Engineering website conducted and recorded by the students of Jennifer Scott's ENGL 3860: UX Research Methods course, fall 2020.

I understand and consent to the use of any information I provide and/or video/audio recordings made of my participation in this study.

I understand that the information and recordings are for research purposes, and that both may be used in the presentation of this study's results and for the purpose of improving the website used in the study.

I understand that the researchers performing this study will protect my anonymity, but personally identifiable information, such as my image or voice, may appear in the presentation of the results of this study.

I understand that participation in this usability study is voluntary, and I agree to immediately raise any concerns or issues of discomfort during the session with the study administrator.

My signature below indicates that I have read this form and fully understand the purpose of this study and my role in it.

Date: 12/2/23

Please print your name: Willan Jennings

Please sign your name: 

Consent and Recording Release Form - Adult

I agree to participate in the Usability Study of the UCCS Engineering website conducted and recorded by the students of Jennifer Scott's ENGL.3860: UX Research Methods course, fall 2020.

I understand and consent to the use of any information I provide and/or video/audio recordings made of my participation in this study.

I understand that the information and recordings are for research purposes, and that both may be used in the presentation of this study's results and for the purpose of improving the website used in the study.

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I understand that participation in this usability study is voluntary, and I agree to immediately raise any concerns or issues of discomfort during the session with the study administrator.

My signature below indicates that I have read this form and fully understand the purpose of this study and my role in it.

Date: 12-1-23

Please print your name: Kelsey Gordon

Please sign your name: Kelsey G.

Consent and Recording Release Form - Adult

I agree to participate in the Usability Study of the UCCS Engineering and Applied Science Website website conducted and recorded by the students of Jennifer Scott's ENGL.3860: UX Research Methods course, fall 2020.

I understand and consent to the use of any information I provide and/or video/audio recordings made of my participation in this study.

I understand that the information and recordings are for research purposes, and that both may be used in the presentation of this study's results and for the purpose of improving the website used in the study.

I understand that the researchers performing this study will protect my anonymity, but personally identifiable information, such as my image or voice, may appear in the presentation of the results of this study.

I understand that participation in this usability study is voluntary, and I agree to immediately raise any concerns or issues of discomfort during the session with the study administrator.

My signature below indicates that I have read this form and fully understand the purpose of this study and my role in it.

Date: 11/18/2023

Please print your name: Michal Lustig

Please sign your name: 

Consent and Recording Release Form - Adult

I agree to participate in the Usability Study of the UCCS Engineering website conducted and recorded by the students of Jennifer Scott's ENGL.3860: UX Research Methods course, fall 2020.

I understand and consent to the use of any information I provide and/or video/audio recordings made of my participation in this study.

I understand that the information and recordings are for research purposes, and that both may be used in the presentation of this study's results and for the purpose of improving the website used in the study.

I understand that the researchers performing this study will protect my anonymity, but personally identifiable information, such as my image or voice, may appear in the presentation of the results of this study.

I understand that participation in this usability study is voluntary, and I agree to immediately raise any concerns or issues of discomfort during the session with the study administrator.

My signature below indicates that I have read this form and fully understand the purpose of this study and my role in it.

Date: 12-1-23

Please print your name: Lauryn Chapman

Please sign your name: 

Consent and Recording Release Form - Adult

I agree to participate in the Usability Study of the UCCS Engineering and Applied Science Website website conducted and recorded by the students of Jennifer Scott's ENGL.3860: UX Research Methods course, fall 2020.

I understand and consent to the use of any information I provide and/or video/audio recordings made of my participation in this study.

I understand that the information and recordings are for research purposes, and that both may be used in the presentation of this study's results and for the purpose of improving the website used in the study.

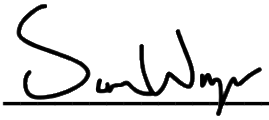
I understand that the researchers performing this study will protect my anonymity, but personally identifiable information, such as my image or voice, may appear in the presentation of the results of this study.

I understand that participation in this usability study is voluntary, and I agree to immediately raise any concerns or issues of discomfort during the session with the study administrator.

My signature below indicates that I have read this form and fully understand the purpose of this study and my role in it.

Date: 11/30/2023

Please print your name: Sarah Wagner

Please sign your name: 

Appendix E: Usability Testing Script

INTRODUCTION

Introduce user to the test and help set them at ease.

Narration:
Hi, _____. My name is _____, and my colleagues are_____, and we are going to be walking you through this session today.

During our session, which shouldn't be longer than 30 minutes, we will have you use a website and provide feedback, so we can improve its user engagement and satisfaction. I want to make it clear right away that we're testing the site, not you. There are no wrong answers.

It would be helpful for us if you could verbally process as much as possible, so that we can get a better understanding of your thought process. Remember, we are doing this to improve the site, so we need to hear your honest reactions and opinions.

[If participant seems confused about Think Aloud protocol provide window example]
Think Aloud provides a glimpse into how someone completes a task. For example, If I asked, "How many windows are in your house?" most people silently think about and respond 10. What we are asking you to do today is tells us how you arrived at your answer. This might be saying "There is two windows in the kitchen, five in the living room, and so on".

If you have any questions, just ask. But try and answer your questions intuitively, we are interested in learning how people use the website when they don't have someone to help them. We can always answer the remaining questions at the end of the session. If you need to take a break at any point, just let me know.

Obtain permission to record session.
Narration:
With your permission, we're going to record what happens on the screen and our conversation. The recording will only be used to help us figure out how to improve the site, and it won't be seen by anyone except the four of us working on this project.

After recording starts.
Thank you for giving us permission to record the session. The recording will only be seen by the people working directly on this project. [Confirm that recording captures verbal permission]

Pre-test demographic questions
What is your age? And current education level?
On a scale of 1-5, how would you rate your comfort using the internet?
On a scale of 1-5, how would you rate your familiarity with university websites?

HOMEPAGE TOUR

Narration:

> The first task is a quick exercise, about two minutes, to explore your first impressions of the site.
> Please explore the homepage and look around without clicking on any of the links.
> Just tell us your first impressions and what comes to your mind.

Give users a few minutes to explore before asking questions. Prompt for Think Aloud while participant reviews the homepage.

- What do you think about the overall design? Is it accessible?
- What's the first thing you notice?
- What can you do on this site?
- What products or services are offered on this site?
- Who is this site intended for?

Notetaker focus - Does the site provide useful content while delivering the client's message? What do they not notice or don't have access to?

SCENARIOS AND ACTIVITIES

Moderator reads the scenario and task aloud to the participant, while the note taker observes completion rate and completion time.

Narration:
Now I'm going ask you to try doing a few specific tasks to examine how well the site works. Please try to think out loud as you go along with each task.

Scenario 1: Find the UCCS College of Engineering and Applied Science page from search engine. * *Use the scenario language when talking to the guest.* (Change: Find if UCCS page will show up on the first page while searching for engineering schools in Colorado.)
You begin your college search by looking up universities in Colorado with engineering programs. Find if UCCS is on the first page of your search.

Task 1: Find if UCCS has an engineering page from your search engine.

Solution: Search for the College of Engineering and Applied Science at UCCS > Scroll for site

Completion rate (Y\N)
Completion time:

Notetaker ask question and then fill out form. SEQ survey: https://forms.gle/oBLL3Jbsm3ZDpJnW7

Scenario 2: Look for a mechanical engineering program at UCCS.
You found the UCCS Engineering program. You are wondering if there is a mechanical engineering program.

Task 2: Find out if UCCS has a mechanical engineering program.
Solution: Top of EAS Home Page > Degrees & Programs > Bachelor's Degrees and Minors > Mechanical Engineering > Learn More

Completion rate (Y\N)
Completion time

Notetaker ask question and then fill out form. SEQ survey: https://forms.gle/oBLL3Jbsm3ZDpJnW7

Scenario 3: Locate the contact information for the mechanical engineering program assistant.
You are interested in the mechanical engineering degree at UCCS but want to learn more information about it and talk to someone in the department.

Task 3: Find the email of the mechanical engineering program assistant.

Solution: Top of Department of Mechanical and Aerospace Engineering page > About > Staff > Stephanie Vigil (mae@uccs.edu)

Completion rate (Y/N)
Completion time

Notetaker ask question and then fill out form. SEQ survey: https://forms.gle/oBLL3Jbsm3ZDpJnW7

Scenario 4: Look for admissions criteria for the mechanical engineering program.
You are looking for specific admissions criteria for the mechanical engineering program to see if you qualify for the program.

Task 4: Find what GPA and SAT/ACT score is required for admission into the mechanical engineering program at UCCS.

Solution: Navigate back to EAS home page > Bachelor's Degrees and Minors > Mechanical Engineering > Learn More > Admissions Requirements > Admissions Criteria

Completion rate (Y/N):
Completion time:

Notetaker ask question and then fill out form. SEQ survey: https://forms.gle/oBLL3Jbsm3ZDpJnW7

Scenario 5: Deciding to apply to the EAS college at UCCS.*
Is there a different application for Mechanical compared to undergraduate?
You have decided that UCCS is a good fit for you, and you want to apply.

Task 5: Find the application for attending UCCS.

Solution: Admissions & Aid (in navigation) > Apply to UCCS > First-year Application

Completion rate (Y\N)
Completion time

Notetaker ask question and then fill out form. SEQ survey: https://forms.gle/oBLL3Jbsm3ZDpJnW7

POST-TEST INTERVIEW

We are finished with the tasks portion of the session and now have a few questions about the websites design.

Website design questions:

- Did you find what you needed easily for each task?
- How do you feel about the website's design?
- What did you feel was missing from this site to complete each task?
- Any last thoughts?

SUS Survey

Thank you. We are almost finished with the session. The last item is a brief survey asking for rated responses to the website's functionality. Please click on the Google Survey link to begin.

SUS survey: https://forms.gle/4tJECyd99Et1niF9A

Thank the participant.

Narration:
Do you have any questions for me now that we're done?

Thank so much, your help is greatly appreciated and has provided wonderful insight into user engagement and satisfaction.

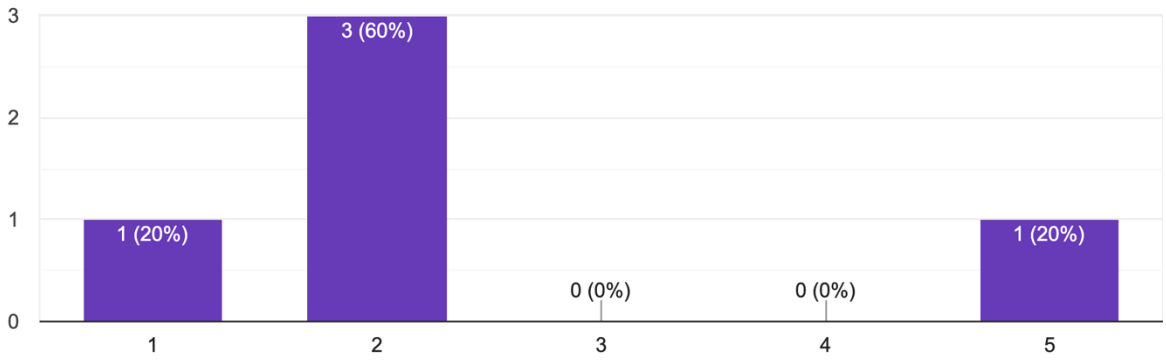
POST-INTERVIEW NOTES

After each test session
Any interesting moment stand out from the session?
List the three most serious usability problems you noticed.

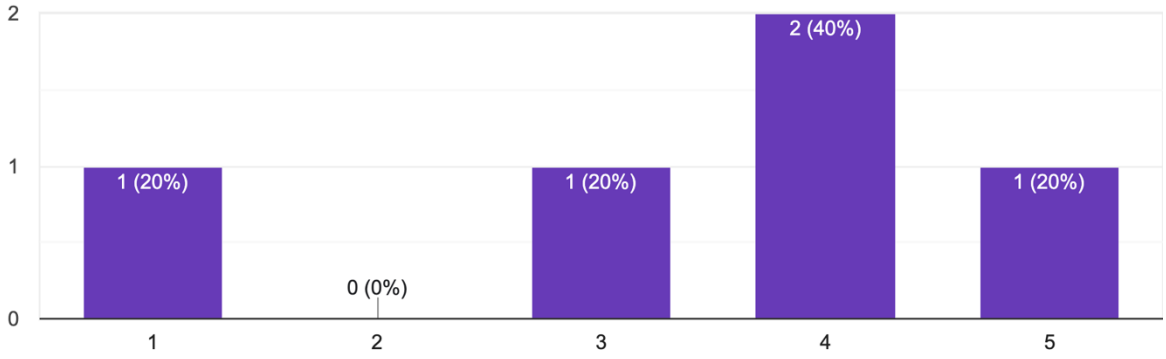
Appendix F: End-of-Test SUS Questions and Results

1 – Strongly Agree
5 – Strongly Disagree

I think that I would like to use this website frequently.
5 responses

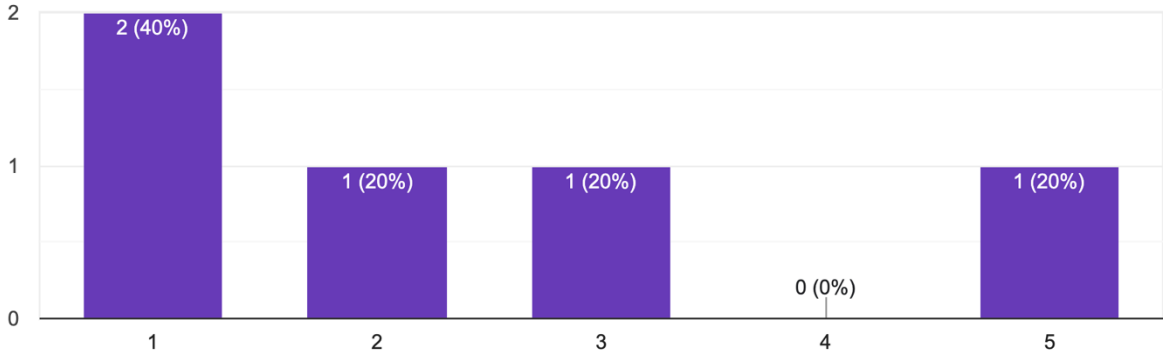


I found the website unnecessarily complex.
5 responses



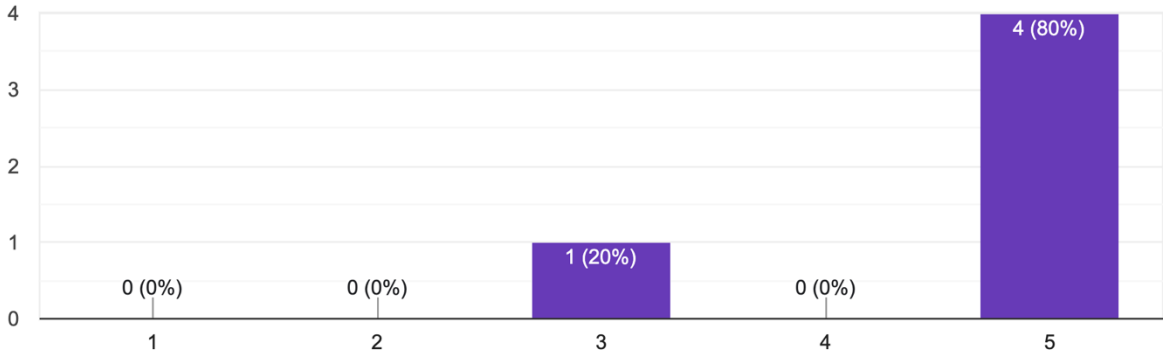
I thought the website was easy to use.

5 responses



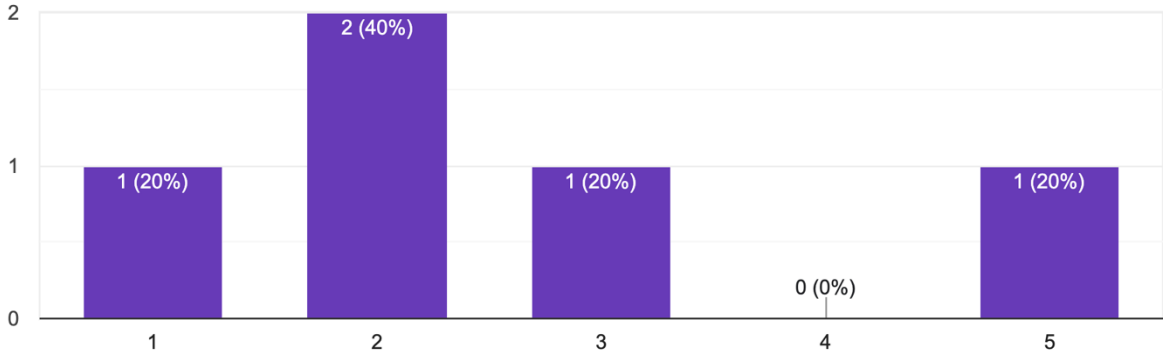
I think that I would need the support of a technical person to be able to use this website.

5 responses



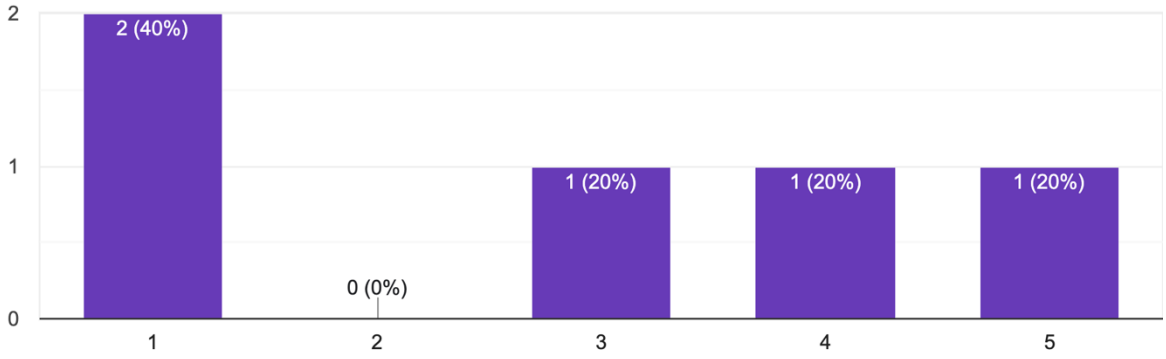
I found the various functions in this website were well integrated.

5 responses



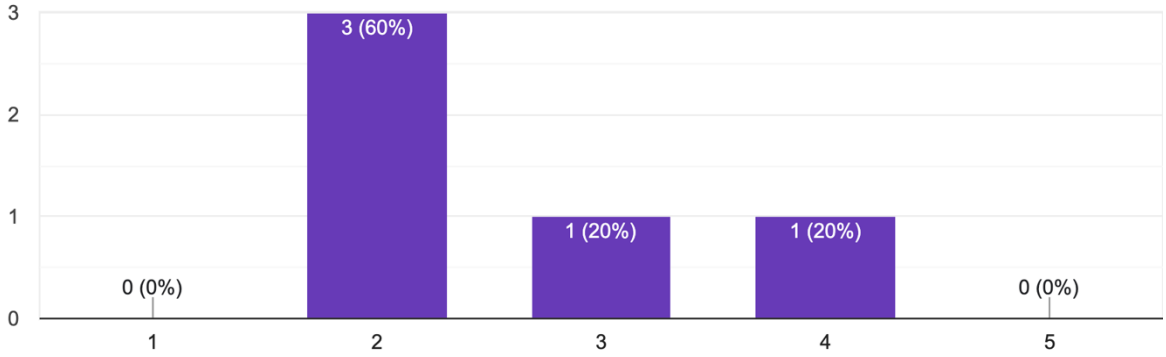
I thought there was too much inconsistency in this website.

5 responses



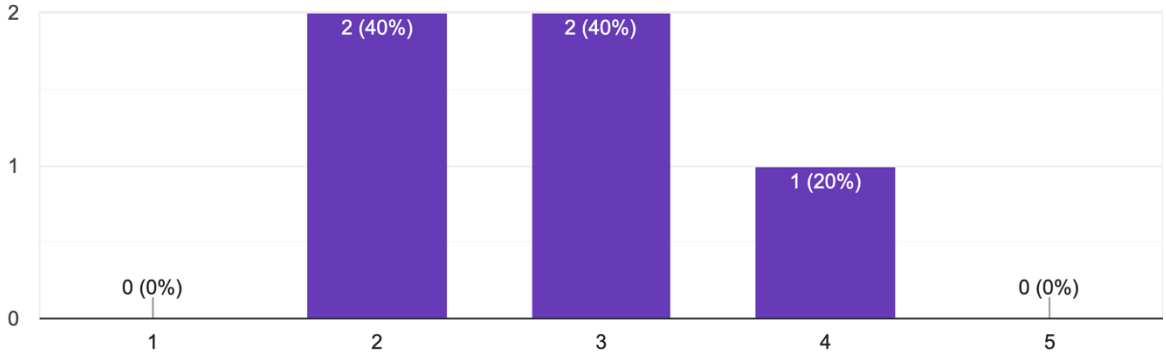
I would imagine that most people would learn to use this website very quickly.

5 responses



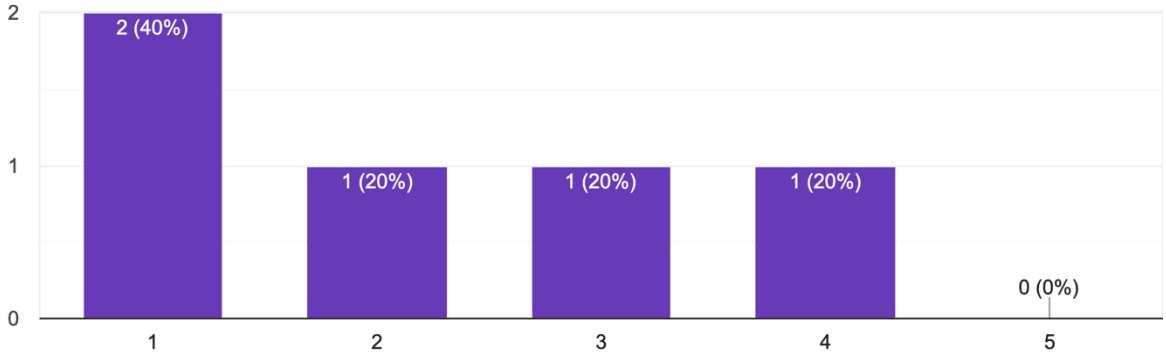
I found the website very cumbersome to use.

5 responses



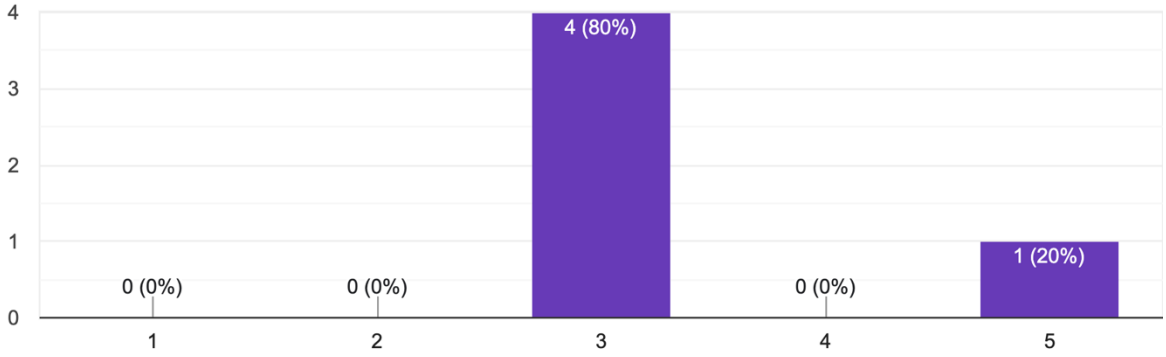
I felt very confident using the website.

5 responses



I needed to learn a lot of things before I could get going with this website.

5 responses



Appendix G: Task Findings

Task 1:

	Observed Success	Observed Confidence	Completion Time	Ease Rating
User 1	Yes	Confident	42 sec	2
User 2	Yes	Confident	33 sec	1
User 3	Yes	Confident	15 sec	1
User 4	Yes	Confident	16 sec	1
User 5	Yes	Unsure	35 sec	7
Overall Score	100% Observed Success	80% Confident 20% Unsure	Average Time: 28.2 sec	Average Rating: 2.4

Task 2:

	Observed Success	Observed Confidence	Completion Time	Ease Rating
User 1	Yes	Confident	5 sec	1
User 2	Yes	Confident	3 sec	1
User 3	Yes	Confident	31 sec	1
User 4	Yes	Confident	7 sec	1
User 5	Yes	Confident	9 sec	1
Overall Score	100% Observed Success	100% Confident	Average Time: 11 sec	Average Rating: 1

Task 3:

	Observed Success	Observed Confidence	Completion Time	Ease Rating
User 1	Yes	Confident	1 min, 3 sec	2
User 2	Yes	Confident	1 min, 16 sec	2
User 3	Yes	Confident	7 sec	1
User 4	Yes	Unsure	1 min, 40 sec	4
User 5	Yes	Confident	13 sec	1
Overall Score	100% Observed Success	80% Confident 20% Unsure	Average Time: 51.8 sec	Average Rating: 2

Task 4:

	Observed Success	Observed Confidence	Completion Time	Ease Rating
User 1	Yes	Unsure	2 min, 14 sec	6
User 2	No	Unsure	1 min, 37 sec	6
User 3	Yes	Confident	15 sec	2
User 4	No	Unsure	4 min, 30 sec	6
User 5	No	Unsure	7 min, 35 sec	7
Overall Score	40% Observed Success	20% Confident 80% Unsure	Average Time: 3 min, 14 sec	Average Rating: 5.4

Task 5:

	Observed Success	Observed Confidence	Completion Time	Ease Rating
User 1	Yes	Confident	35 sec	3
User 2	Yes	Confident	1 min, 13 sec	5
User 3	Yes	Unsure	42 sec	2
User 4	No	Unsure	3 min, 30 sec	6
User 5	Yes	Unsure	3 min, 29 sec	5
Overall Score	80% Observed Success	40% Confident 60% Unsure	Average Time: 1 min, 54 sec	Average Rating: 4.2

Appendix H: User Journey Map

User Journey Map: Task 5

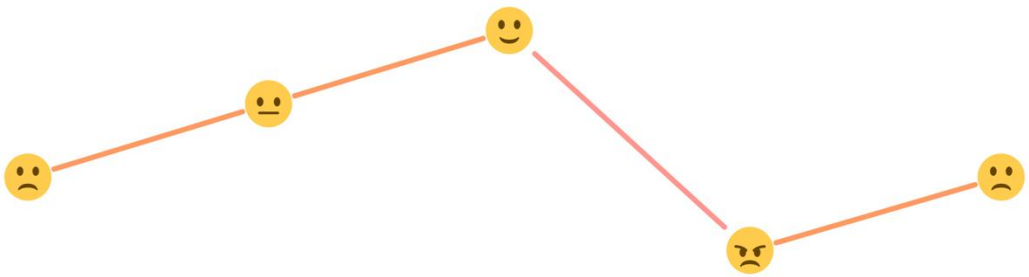
Sarah Morgan

Age: 17
Occupation: Student
"I am a junior in HS, and I want to move to Colorado for my undergrad degree and find schools that offer engineering programs.

Sarah is doing research online to learn more about her options for a higher education in the field of engineering. Her goals include finding a school that has the following characteristics: a good program, scholarships and aid, an affordable attendance cost, small class sizes, and available student resources.

Sarah is proficient in apps and social media and is also very proficient with internet searches and computer software.

Her primary device is a Macbook laptop, and her preferred browser is Google Chrome.

STAGES	Finding the UCCS Engineering and Applied Science Page	Navigating the EAS Page	Discovering the Mechanical Engineering Program	Finding the Mechanical Engineering Admissions Requirements	Finding the Mechanical Engineering Application
	20-30 seconds	45-60 seconds	15-20 seconds	4-5 minutes	2-3 minutes
USER GOAL	As a junior in high school looking for universities in Colorado that have engineering programs, I have heard about UCCS potentially having an engineering college, and I want to quickly locate its official website to gather information about the available programs and admission details.	As a prospective student exploring the UCCS Engineering and Applied Science webpage, I want an intuitive and easy-to-navigate interface that allows me to efficiently browse through the various departments, programs, and resources available within the College.	As a prospective student interested in pursuing a degree in Mechanical Engineering at UCCS, I want to easily find detailed information about the Mechanical Engineering program, including courses offered, faculty profiles, and student resources.	As a prospective applicant for the UCCS Mechanical Engineering program, I want clear and concise information about the admissions requirements, including GPA criteria, standardized test scores, and any additional materials or prerequisites needed for a successful application.	As a potential applicant for the UCCS Mechanical Engineering program, I want a straightforward and easily accessible path to locate the application materials and submission process, ensuring a smooth and efficient application experience.
PAIN POINTS	"It took me a while to find the UCCS Engineering and Applied Science page, as UCCS was below many of the other schools in Colorado, and I don't have a lot of time to spare researching."	"I am apprehensive about the Engineering college at UCCS because I am having a hard time locating information in the site's navigation, including the college's contact information and resources."	"I am nervous about this school because only a few programs are highlighted on the main page, and I want to make sure I'll have plenty of options."	"I couldn't find any information about the admissions requirements for the Mechanical Engineering program, so I had to leave the site and look it up on Google."	"I can't figure out if there's a specific application for the Engineering college or not, and I'm nervous to apply without being sure about this."
EMOTIONAL STATE					

QUESTIONS	"Is there not a Engineering college at UCCS? All that shows up is the main UCCS website." "Does UCCS not have engineering? Nothing is showing up for it, and I'm already on the second page of Google results."	"What is the difference between 'degrees' and 'programs'?"	"Are there only three engineering programs offered? Only three are highlighted on the homepage."	"At this point, I think I should just try to look up the requirements on Google." "It keeps saying it's test optional at UCCS, but I don't know if that's also true for the Mechanical Engineering program."	"I don't know. It is an application, but is it specific to mechanical or is it a part of the first-year general application?"
TOUCH POINTS	• Performing a search engine query for "engineering schools in Colorado." • Clicking on a search result link leading to the official Engineering and Applied Science website.	• Exploring the menu options on the EAS page to find information about different departments and programs. • Clicking on the relevant department or program link.	• Browsing the Mechanical Engineering section on the EAS page. • Reading overviews, course offerings, faculty profiles, and potential career paths within the Mechanical Engineering program.	• Searching for "UCCS Mechanical Engineering Admissions Requirements." • Clicking on the admissions link within the Mechanical Engineering program section.	• Navigating to the application section through the Mechanical Engineering program page.
CHANNELS	Search Engine (Google Chrome)	UCCS College of Engineering and Applied Science Website	UCCS College of Engineering and Applied Science Website	• Search Engine (Google Chrome) • UCCS College of Engineering and Applied Science Website	UCCS College of Engineering and Applied Science Website
IMPROVEMENT OPPORTUNITIES	• Enhance UCCS's online presence through improved SEO strategies. • Ensure the EAS website takes priority over the UCCS website in "engineering" Google searches.	• Review and revise navigation labels for clarity. • Include clear call-to-action buttons or links for each department or program, making it easy for users to access detailed information with a single click.	• Feature a prominent link or section on the main page dedicated to showcasing all engineering programs.	• Feature a clear and prominently placed link or button labeled "Admissions Requirements" within the Mechanical Engineering program page.	• Clearly communicate whether there is a unique application for the Mechanical Engineering program or if it is part of the general first-year application. • Have an easily identifiable section on the program page stating "Apply Now."