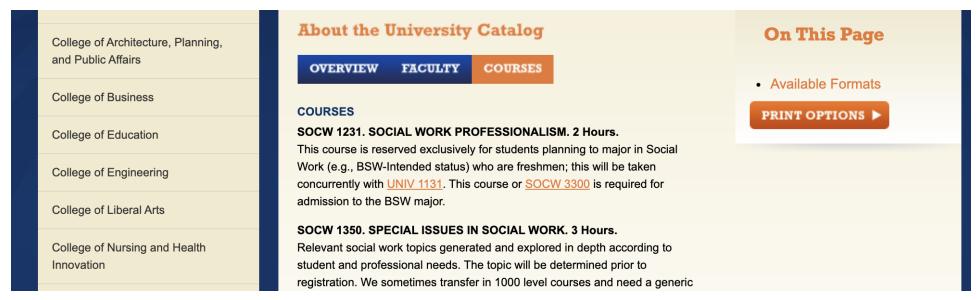
DESIGN REPORT #2

REFINING THE UI

#HEURISTIC EVALUATION, #MOCKUPS, #VISUAL_DESIGN, #HTMLCSS



[Attribution:: Pixabay]

AUTHOR

- [Inara Rupani]
- [https://docs.google.com/document/d/10J0172M73HkeBe7uk7pae0cgZRpgN-gamALBgpkj4ls/edit?usp=sharing]
- [Miro Board, Figma Borad]

DEADLINES

Module Release	Feb 3			
Module Due Date	February 19, End of Day to Canvas			
Module Exam	February 19 - February 21			

TEACHING OBJECTIVES

- Ability to **defend** and **critique** designs.
- Working knowledge of Nielsen's heuristics.
- Ability to identify key usability issues using a heuristic evaluation.
- Ability to translate FIGMA mockups into HTML/CSS prototypes.
- Ability to leverage visual design fundamentals (color, typography, layout).

DESIGN BRIEF (100 PTS TOTAL)

Navigating the territory of college is tough, especially when you are first starting out. UTA has asked you to help them create a better experience for incoming or current first-year undergraduate students. In this module, you'll be asked to:

- 1. Conduct a **heuristic evaluation** of https://catalog.uta.edu/
- 2. Find and virtually observe at least two users from the target population selecting courses for their freshman year.
 - a. Create an **empathy map**.
- 3. Generate a solution and prototype for your user's rendered to a high-fidelity **HTML/CSS** mockup.

We recommend apportioning 1 week for bringing your prototype up to a high-fidelity HTML/CSS mockup, especially if HTML/CSS is new for you.

The final deliverable will be a **PDF** of this design report.

1. HEURISTIC EVALUATION (20 PTS)

Review each of Nielsen heuristics and identify any violations you encounter when executing the following task:

- Plan your freshman year in major other than your own.
- Use UTA course catalog, respective degree plans from other departments, or myMav

For each heuristic violation, identify the severity and provide a potential solution to fix it.

Please use the associated codes for shorthand.

This is the only part of the assignment that you should work with your partners

(https://uta.instructure.com/courses/73999/groups#tab-15397)

Nielsen's Heuristics SS- Visibility of system status	o	Not a usability problem
SW- Match between system and real world UCF- User control and freedom CS- Consistency and standards	1	Cosmetic problem; Fix only if there is extra time
ERR- Error prevention R/R- Recognition rather than recall FE- Flexibility and efficiency of use	2	Minor problem; Should be given low priority
AES- Aesthetic and minimalist design R&R- Help users recognize, diagnose, and recover from mistakes DOC- Help and documentation	3	Major problem; Should be given high priority
BOC- Help and documentation	4	Usability catastrophe; Should be fixed immediately

Aim to identify between 15-20 violations in this task.

√ ++ Suggestions

- 21-30 violations
- Asking clarification questions on Q/A on respective heuristics

This will be a module exam question, so be sure you understand all of them and their different manifestations.

Group Members: [Madhav Bist][Nathen Paul]...

Nielsen's Heuristics	Violation Rationale	Severity	How might you fix it?	
SS	The user is not aware of steps they need to take in order to get to the courses page for a specific major.	2	For College of Business, the intro page should have a list of majors on the intro page where the user needs to navigate, instead of the sidebar. Which could be helpful to easier to navigate to the desired major. Based on this design, the user is unaware of what the items on the sidebar are for. 2020-0201 CATALOG The Unverty of Texas at Adoption Univerty of Texas at Adoption University of Texas at Adoption Uni	
SS	The content on the website is overwhelming (wikipedia article) for a new user regarding classes selection. Requirement for a Bachelor of Business Administration in International Business/Hofers Language Business/Hofers L	3	From the picture, the position of scroll bar tells that user have to scroll down so much to get to class selection. Therefore my fix should be to swap the content in more of a drop down style where when clicked or certain block the user can access. It would also condense the content and keep the navigation active to other pages.	



The page for course selection, doesn't appeal to new students (Freshman's) who have no clue on how the classes work and if any information for their AP credits from high school, instead it talks about types of degrees

There should be an additional tab for new students (especially high school) so they can get information on their college credits (AP) they took in high school. It would be effective in planning their classes and know what classes they can eliminate from the total number of classes to be taken.



Requirements for a Bachelor of Business
Administration in International
Business/Modern Language
Students must meet all lower division requirements before enrolling for upper
division courses. Specified prerequisites are designated for certain courses.

Pre-Professional Course Requirements - Fulfill the University
General Core Requirements (42 hours and 1 elective hour)

General Core Requirements

Communication (minimum 6 hours required)

ENGL 1301

RHETORIC AND COMPOSITION I

ENGL 1302

RHETORIC AND COMPOSITION I

Along with General core requirements, there could be a link for acceptable AP credits, or a list of acceptable credits



The user doesn't have a back option when a pop us is shown for class descriptions

2

1st Description BSTAT 3321. INTERMEDIATE STATISTICS FOR BUSINESS ANALYTICS. 3 Hours. Informing business and economic decision-making with intermediate-level tools of business analytics. Topics can include the quality and representativeness of data; conditional probability; statistical independence: business applications of discrete and continuous probability distributions at the intermediate level; multiple-population inference; non-parametric methods; and intermediate regression analysis. Both spreadsheet and statistical software are used to conduct analyses throughout the course. Prerequisite: MATH 1308 or BSTAT 2305. **KEAE 3325** BSTAT 3321 2nd Description MATH 1308. ELEMENTARY STATISTICAL ANALYSIS. 3 Hours. (TCCN = MATH 1342) Topics may include collection, analysis, presentation, and interpretation of data. Analysis includes descriptive statistics, probability, relationships between variables and graphs, elementary statistical models, hypothesis testing, inference, estimation, correlation, regression and confidence intervals. The use of mathematical software and calculators is required. See course **KEAE 3325**

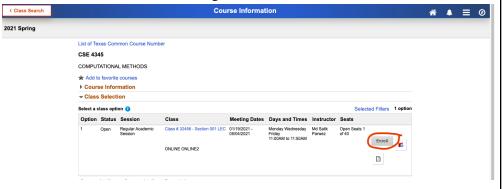
The problem can be fixed and be more user friendly if the pop ups can have a back option, so the user can navigate to the back to the types of classes that are pre req instead of only going forward, and restarting the cycle to get to more Pre-Req under a class. In the picture we can see for 1st description: the class has two pre-Req and by clicking one it takes us forward to the picture under "2nd description."

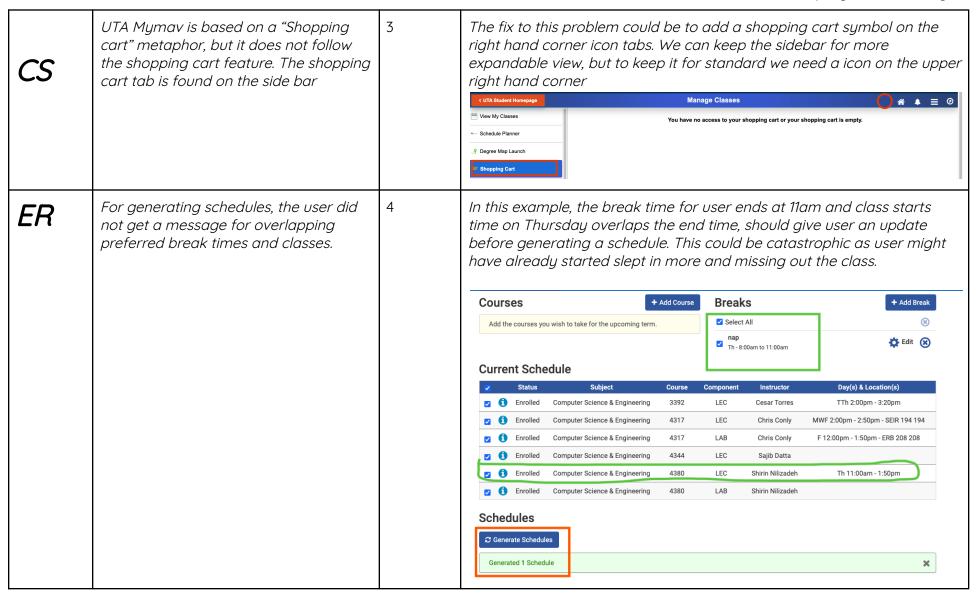
2nd: Description only shows its description or could have more pre-req courses to go ahead. But it should have an option to "go back" so user can go back to picture under "Ist description"

CS

UTA Mymav is based on a "Shopping cart" metaphor, but it does not provide any options to add the class "to cart" instead say "Enroll"

The fix for this violation to change the button's text to "Add to Cart'





R/R	The user has to recall what classes they have been eyeing out for and not able to actually see recently searched classes to plan.	2	The user have to search using a ID or course name, this means the user have to remember the classes they have been looking lately to be able to plan. Instead of remembering, recently searched classes should be shown up in the box under. Which will convey recognition instead of recall for the item. Choose Term & Search Courses Courses found through searching the catalog may not apply towards your degree requirements. Term 2021 Fall Q Search by Course Name or ID Use the search box to find the course you're looking to plan.
FE	The violation takes place when only the class codes and numbers are present. Which is overwhelming and not clear for a new student starting in the major. They don't have enough resources in order to understand and plan their course work at UTA	3	The violation is high priority to be fixed as it does not cater for inexperienced users. Upperclassmen can easily tell what these classes are as they have already taken them. The violation can be fixed by writing a course name/title beside the course number. In addition, a hyperlink to class name can help solve the problem for inexperienced users. Academic Pathways for Bachelor of Science in Public Health 2017-2018 Scenario I: First-time, full-time freshman (Total= 120 hours) Freshman Year/1st Semester ENGL 1301 POLS 2311 POLS 2311 POLS 2311 POLS 2312 MATH 1301 or MATH 1302 BIOL 1441 or BIOL 1345 PSYC 1315 (Social/Behavioral Studies) Creative Arts KINE 2350



The violation takes place when only the class codes and numbers are present. Which is overwhelming and not clear. This makes the users recall the class name and its specific instead of just recognizing it.

MATH 1308
PSYC 1315 (Social/Behavioral Studies)
KINE 2350

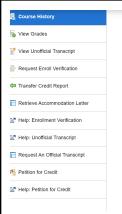
The violation affects more to inexperienced users, but is also an inconvenience to experienced users. The violation can be fixed by giving a course name besides the course number in the row. Which would help with the recognition through the use of the title name, and the student doesn't have to recall the class name and its description.

ACADEMIC CORE: (36-39 hours)			
KINE 2350 Public Health: Principles and Populo	itions		
KINE 3350 Urbanization & Vulnerable Population	ons		
KINE 3351 Public Health Informatics			
KINE 3352 Introduction to Epidemiology			
KINE 3353 Health & The Human Condition			
HEED 4311 The Environment & Public Health			
KINE 4351 Ethical Practices in Health Profession	ns		
KINE 4352 Public Health Sciences and Method	ls		
KINE 4354 Public Health Advocacy and Leadership			
KINE 4355 Communication for Public Health Professionals			
KINE 4357 Preparation for the Public Health Workforce			
KINE 4353 Cumulative Experiential Learning Ex	perience		

AES	The page about degree programs only lists the types of degrees are offered any other relevant info is not present which can make the page not necessary if it doesn't convey any information about the different degree plans at UTA	1	The UI for degree program can be fixed by adding hyperlinks to the degree programs so that it takes the user to the specific page, without user to actually navigate to its specific "department" and degree. Degree Programs College of Architecture, Planning, and Public Affairs Architecture - BS Interior Design - BS Architecture - M.Arch. Landscape Architecture - MLA City & Regional Planning - MCIRP Accelerated Online Master of Public Administration - MPA Public Administration - MPA Urban Affairs - MA Public & Urban Administration - PhD
DOC	The tabs on website is ambiguous to what kind of information is present in a specific tab.	1	The violation can be fixed by, when the mouse is hovered on the tab, iut can give some information about the tab or a brief description that conveys the information under the tabs. - In addition, the tabs can be organized based on mastery College of Business OVERVIEW BACHELORS MINOR MASTERS DOCTORAL

			Spring 2021 • OT Arilington
SS	When you click on the student help center, it directs to a page with a single button that directs you to the home dashboard on canvas. This is a pretty severe error as it requires the user to go out of MyMav and into canvas without notifying them about what is going on.	3	Since the student help center just redirects the user to their Canvas homepage under the same mymav login, we can relabel it as "Canvas Dashboard" and have it direct students directly to their canvas dashboard in a new tab instead of having a button on a separate page.
ERR	When first logging into mymav, a red error message is printed at the top telling you to enable cookies and follow payment steps. This message appears even if you enabled cookies and/or not making a payment. First, this should not be an error message since the user did no illegal actions. Second, this message is hinting at the user just to make sure that the user has cookies enabled on their browser.	3	Change the message background to yellow and move the message to appear on the payments tab of mymav only if the user does not have cookies enabled already on the online browser they are using.

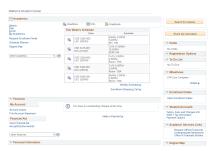
DOC. AES



On the side of view, after clicking academic records, it has a list of actions as well as the help pages for those actions. However, they are organized in a manner that is not easy for users to read. For example, the help page for enrollment verification comes after the action tab of retrieve accommodation letter tab. Additionally, there is no need for the help pages for each action to be a separate tab for it takes a lot of conscious effort for the user to read through each one.

Instead of having several different help tabs visible, reduce the number by having one help tab that can encapsulate all the information from the different help tabs. Essentially like having a FAQ tab as the last tab on the list of side action tabs. This will easily direct the user to the place where they need to go to ask for help about a certain action and eases the burden on the amount of information they have to read as they can view it all from one tab instead of looking through multiple tabs.





When selecting the student center box on MyMav, it takes you to a page with a completely different UI layout. The right third of the window is completely blank while the remaining % of the window is crammed with boxes and information. This makes it very hard for the user to follow what is going and what actions they need to take.

Need to renovate the student center with the standard UI used for the rest of myMav. Have the Title Sections broken down and into a format that makes it easier for the user to read. Create boxes for each sub section and extend with tabs that break down different action items the user can take. Also, they should try to utilize the whole screen for content and use that space to spread out text and lessen the burden on the user to read through a bunch of text. Thus, both keeping it consistent with current UI being used for the rest of MyMav, and make the design more transparent, requiring little conscious effort from the user to memory certain actions.

			Spring 2021 • UT Arlington
AES	Under the manage classes tab in mymav, there are 4 actions tabs that essentially do the same things. The class search and enroll allows you to select and and enroll in desired classes and the class search only tab just allows you to search up your classes. In addition, the enroll by requirements and enrollment dates tab encapsulates what information is already included when enrolling. Thus there are a lot of repetitive actions taking place that do not need to be included again.	2	Instead, create separate action tabs for searching and enrolling in course. Have the enrollment tab to include what is already seen in enroll by requirements and enrollment dates tabs.
FE	Academic Progress Summary Academic Progress Summary Report date greated and \$2010221 11.10.00PM © Cycled of Cadedon Prince © USED Museum Quies Fair © USED Museum Quies Fair © USED Museum Quies Fair © USED Grantation P Analytic Grantation © Grantation State © Grantation State P Analytic Grantation P Analytic Grantation P Analytic Grantation © Grantation State P Analytic Grantation P Analytic Grantation	2	Only update students to their own degree plan. Thus, if you are a nursing student, they will be shown the nursing degree plan.

There is no need for the Nursing Degree to have a separate tab. It adds irrelevant information to the page, especially for students who are not even in

the nursing program.

·	1		1
R&R	There is an error message that prints out when you have been inactive for more than 30 mins on myMav. However, this error message states that your peoplesoft session has expired rather than stating mymav. In addition, this message tells you to close all browser windows before signing in again but the user is still able to sign in without closing any of the windows.	2	Print a pop-up message stating specifically that you have been logged out of MyMav due to inactivity and take the user back to the original login screen for MyMav.
UCF, CS	When clicking on the degree map link on mymav, it takes you to a completely different window and asks you to sign in again, despite the fact that you use the same sign-in on my mav. In addition, you are not able to get back to mymav from this page as it blocks use of the back arrow.	3	Allow for the user to access everything while login the first time, and allows for the user to click on the back arrow to go back to mymav home dashboard.

Spring 2021 • UT Arlington



Machine inversion profitations are sent to all utilized entitl addresses and are sent as bed messages to mobile phone numbers registered in your witness received the phone numbers in the progression of any sent to all utilized historial field of the dispulsation of

I think having a toggle feature for enabling notifications makes it hard for the user to understand what actions they are taking. There are simply better ways to answer a Yes/No question. In addition, the page includes extra information. For example, it includes the Student Name and ID despite having nothing with receiving phone notifications. In addition, the text is written in separate paragraphs rather than a list and bullet points, even though each line represents a separate point. Does making it harder for the user to read.

Allow for the main points to be organized in a list format, and switch the toggle feature to a multiple-choice question for whether or not they want to receive notifications.

Ex:

0

Do you wish to receive phone notifications?

- Yes
- No

AES

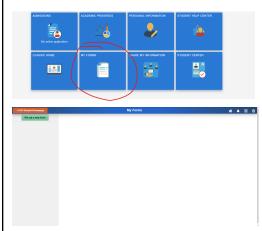
Course Descriptions

- Accounting (ACC1)
- Advertising (ADVT)
- Acrossace Engineering (AE)
- Acrossace Engineering (AE)
- Administration (AS)
- Affiliated Studies Abroad (ASA)
- Affirant-American Studies (AAST)
- American Sign Language (ASL)
- Architectural Engineering (AREN)
- Architectural Engineering (AREN)
- Architectural Engineering (AREN)
- Art & Art History (ART1)
- Astronomy (ASTR)
- Billiongal ESL Early Child Prog (BEEP)

Under the course catalog when looking under course descriptions, there is just an empty bullet point.

Delete the empty bullet.

SS



When clicking the My Forms page on MyMav, it redirects you to a page with a new button on the side to create a new form and an empty blank space beside it. This design does a bad job of directing the user where to go, and does not notify the user if they have filled out any forms already or not. In addition, if the user have no forms filled out, it doesn't notify the user that they have no forms saved.

On the My Forms, there should be three separate action tabs on the side: Create a new form, Form History, and Uncompleted Forms. The create a new form tab will allow the user select a form they need to fill out. The Uncompleted Forms tab will list all the forms that the user still needs to finish. Finally, the Form History tab will show all the forms the user has completed.

If the user has no forms filled out, then there will be a message that says "no forms have been saved on this account".

SW



When you click on the Share Information, It takes you to the following UI pictured above. It has a tab labeled "Security" which you would assume means protection, but it takes you to through different tabs discussing the different regulations UTA has with sharing your information as a user. Thus, it communicates more about "User Privacy".

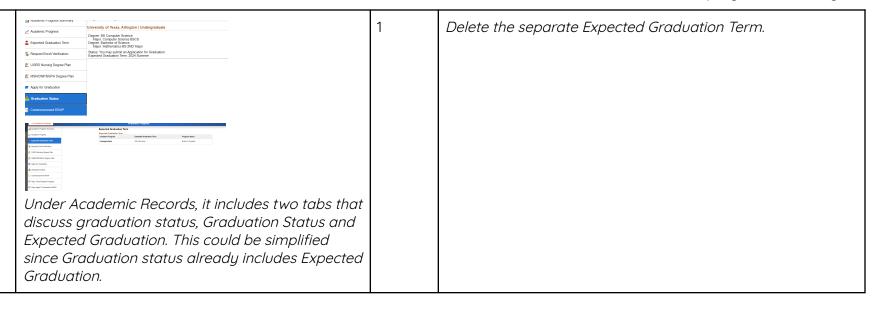
In addition, it's unclear to the user what actions they can take. For example, under user preferences, it is hard to understand what they are asking the user to select. Are they asking the user to pick which information they can share or look up information about themselves? Change the Security tab with a more appropriate label ("User Privacy"). Clarify to the user that they can pick which information they wish to share on their public records with UTA. Provide the information they can share in the checklist, thus the user can decide which to include and exclude.

Ex:

- Academic Program
 - ✓ Undergrad
 - ☐ Grad
- Starting Term
 - ✓ Fall 2018
- Years of Aid
 - ✓ Fall 2018
 - ✓ Spring 2019
 - ✓ Fall 2019
 - ✓ Spring 2020
 - ✓ Fall 2021
 - ✓ Spring 2021

AES	Nathen Paul Personal Info auth MyAMV I Hab Content Addance Verw, add, charg UTA Customizations Verw, add, charg Uta Campus Community Set Up SACR Reporting Tools Rep	2	Get rid of the top bar with the drop down menus for Main Menu and Favorites.
FE	VECTOR SPACES CSE 1412 VECTOR SPACES CSE 1413 PROFESSIONAL PRACTICES 3 CSE 1413 CSE 1414 CSE 1417 COMPUTER SYSTEM DESION PROJECT II 3 CSE 1412 CSE 1412 CSE 1412 CSE 1412 CSE 1412 CSE 1412 CSE 1414 A COMPUTER SYSTEM DESION PROJECT II 3 CSE 1412 CSE 1412 CSE 1414 A PROFESSIONAL DESION PROJECT II 3 CSE 1412 CSE 1412 CSE 1414 A PROPOWED Mathematics decline 2 A Approved Technical elective 2 4 Approved Technical elective 2 4 Approved Technical elective 2 4 Approved Technical elective 2 9 Total Hours 1 Al lot of acceptable elective 3 available from the departmental office or Web stee. 3 All pre-professional courses must be completed with a C or better before enrolling in professional courses must be completed with a C or better before enrolling in professional courses must be completed with a C or better before enrolling in professional courses must be completed with a C or better before enrolling in professional courses must be completed with a C or better before enrolling in professional courses must be completed with a C or better before enrolling in professional courses must be completed with a C or better before enrolling in professional courses must be completed with a C or better before enrolling in professional courses must be completed with a C or better before enrolling in professional courses must be completed with a C or better before enrolling in professional courses must be completed with a C or better before enrolling in professional courses must be completed with a C or better before enrolling in professional courses must be completed with a C or better before enrolling in professional courses must be completed with a C or better before enrolling in professional courses must be completed with a C or better before enrolling in professional courses must be completed with a C or better before enrolling in professional courses in a course in a constant in a con	1	Instead, have the link to the list of approved electives attached and available for the user to view.





SS	UNIVERSITY OFTENS A RELINCTON UNIVERSITY CATALOG University cata	1	It can be fixed using display corecet button names such as click here to see courses or click here to see nursing degree plans and separate the button from default one.

CS	Since the college of Business website for catalog has a degree for those who want to get minor in business all the sudden they fail to explain the course number and full name that create the confusion while enrolling class especially freshman are victim of it.	2	The problem can be considered as the minor since it can be fixed by following the consistency pattern they follow just in the div above this one. Use of course numbers and full course name can make this thing work.
ERR	Definition in Business Administration Nince in Business Administration - Requirement announced in the residence in the contract in the contr	2	This problem can go if the source code is inspected carefully.

DOC	Supposed from the control form of the control	3	This is a major problem and can be fixed using the proper button such as click here to access degree plan or click here to access the document.

CS

Discrete Projection Control of Co

This is a course catalog of the industrial engineering department. If we see a degree plan it is fine and consistent and there is a fast track button. If we click the button there is nothing a student can learn and which course to take to be considered as the fast track student.

This is a major problem students can be misguided and lead to serious problems that can be fixed by using the concept of updating the website the same as the other buttons do, like being consistent in following the information.

3

3

ASE

If we see the mechanical engineering ourse catalog there is menial design and only the major ourses are listed without mentioning which one to take first

course catalog there is menial design and only the major courses are listed without mentioning which one to take first and what is overview and way to get fast track courses this is a problem and freshmen can get confused.

This problem can be solved by adding more content and navigating buttons and adding more information.

2. OBSERVATIONAL STUDY (40 pts)

Recruit two users to study executing the following task:

• Plan your freshman year in a major of your choice at UTA.

Users must come from the following groups:

- High school students (prospective undergraduates)
- College freshman

Study protocol *modify to reduce threats to external validity

Request a 10-minute Team/Zoom. Follow the following protocol:

- Obtain verbal consent to record Team/Zoom
 - o Sample script: I am a UTA student and working on a class project trying to understand what the experience of choosing classes for an undergrad is like. For my notes, I would like to record this session. Anything I write about you will be anonymized. The study will take 10 minutes and involve me watching you plan out your first year at UTA.
 - Would you be willing to participate in my study?
- Record video.
- Provide URLs to UTA Catalog. Give the user the study task:
 - Plan your freshman year in a major of your choice at UTA.
- Describe think aloud
 - o Provide an example of the think aloud (be sure to provide examples relevant to the goal of constructing an empathy map).
 - e.g. I have always wanted to be an architect. I really want to be in a class with those big wooden drafting tables. I am going to search for "drafting". Oh! This description sounds so interesting, but what does this 3000 mean? I wonder if I can take it right now [as a freshman].
 - e.g. My sister said never take a course with Dr. Torres. Apparently, he makes you draw a lot and I hate drawing. Oh, here is a pure programming course!
- Watch, listen and observe for 10 minutes.
 - o If they fall silent, ask them "what are you thinking?"

CSE 3392 • Intro to Human-Computer Interaction

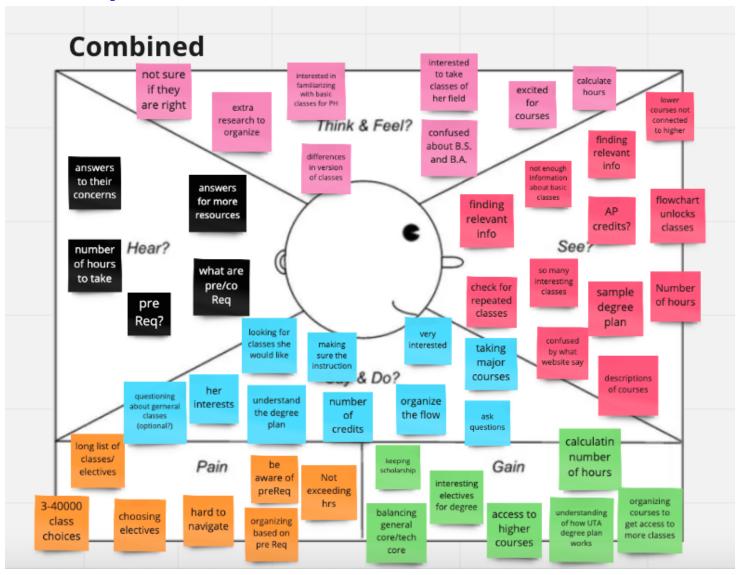
Spring 2021 • UT Arlington

- Keep a diary of your observations.
- At the conclusion of the study, thank them for their time.

Using **Miro**, construct an empathy map of your user.

[Empathy Map | Miro Board]

[SCREENSHOT OF MIRO BOARD]



Question 1

What did you learn about your user group that you had not anticipated? How is your experience different from yours? **Based on my user group below are the observations!** noticed during the interactions:

- 1. The user group was confused and overwhelmed by the information provided on the site.
 - a. "Why does the background information about the UTA matters for degree plans" Student B
- 2. Students were confused by not able to find correct information for them to plan their classes
 - a. "Hyperlinks should be present on pdf degree plans to navigate to university website where the descriptions of these courses are present or previous syllabus" Student B
- 3. Students main concern was to find how their AP credits will be accounted for their classes
- 4. "I am not able to find what general core requirements are" Student A; as on her degree plan there was no hyperlink for core classes and understanding how they work
- 5. They were more tempted to take higher level courses which resembled their degree interest. Not knowing that there are restrictions in advancing to take higher level courses.
 - a. No information was given, and was different for each department
- 6. "Site navigation is not interactive and old school types," was one of the comments I received that appeals that current generation is very use to having interactive and easy flow website where they can complete the task at ease and does not require plenty of google searches.

Overall, I enjoyed observing them realizing there were so many aspects that even I tumbled upon as a freshman. This confirms to how user interfaces should be aligned to the thinking style of the newer generations. My experience is different from high school seniors because I am more used to using university websites and know which link exist that will provide me the information to my benefit. Therefore, the user interaction was anticipated that they will be confused and ask a lot of questions in order to understand course planning.

Question 2

Propose 3 design principles from your empathy map to guide others for designing good course catalogs for freshman/prospective undergraduates.

- The items on catalogue shall be arranged and organized at one specific place instead of duplicate and contradicting information on UTA and specific department catalogue.
- The Catalogue shall be interactive for courses/majors that they have information about everything connected like Subject requirements, eligibility requirements, transfer score(AP score, any assessments)
- The design shouldnt be text heavy Minimalistic, Courses can be hyperlinked so minimize texts and their specific pages.



• 3-5 users

3 users were observed and are shown on Empathy map

Add direct quotes

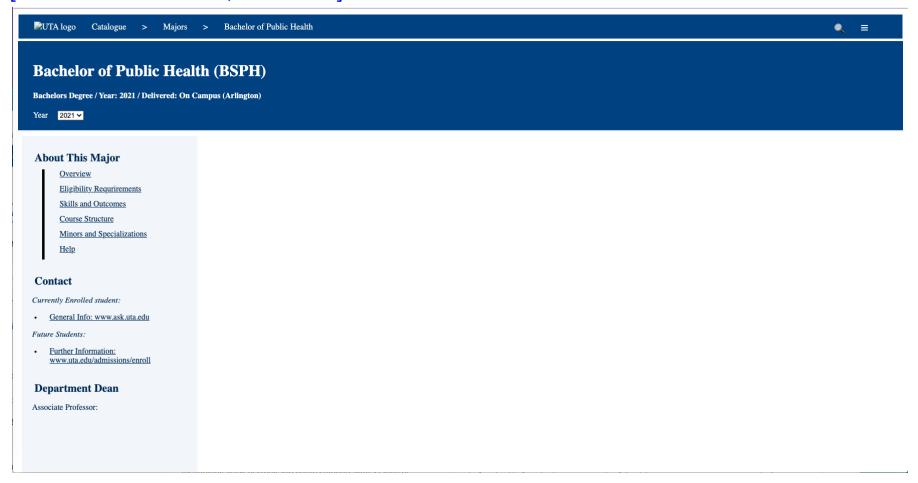
"Site navigation is not interactive and old school types,"
"I am not able to find what general core requirements are"

3. HTML/CSS MOCKUP (40 PTS)

Design and prototype a solution for freshman/prospective undergraduates to plan their first year. Render the principle screen as an HTML/CSS mockup. Show your process.

[TODO: DESIGN PROCESS]
FIGMA: Bristol Sketches
FIGMA: Design Process

[TODO: SCREENSHOT OF HTML/CSS MOCKUPS]



[TODO: LINK TO GITHUB REPO]

- Link for CodePen are on GitHub



- Show iterations Iterations shown on Figma Board
- Obtain critiques from the Critiques channel

