# Midterm Exam

MIST 7540 Web Design & Usability

UX documentation related to the University Life Application

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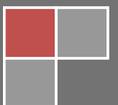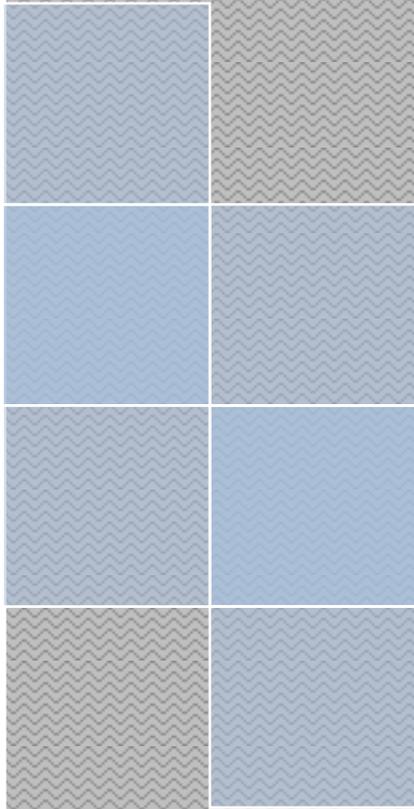
Feature requirements for University Life App

1. Online course evaluations that are integrated into the academic portion of the app.
2. Personal goals manager that can be created and monitored by the owner of the profile.
3. Coursework task manager for class assignments & exams.
4. A Calendar that merges iCloud (personal) calendar with the coursework (academic) task manager to avoid scheduling conflicts in daily life.
5. Course catalog access to view future course offerings & class options.
6. Personalization options of the layout, content & interface of the app. Allows the students to be less formal and interact at a more social level.
7. External system's notifications sent via e-mail or text that alert user of project/assignment due dates & website maintenance outages.
8. "Safe writing" feature that analyzes a student's term paper to avoid potentially plagiarizing content before submittal on the assignment dropbox.
9. The instructor's requirements list where they can upload books, tools, and supplies associated with the course. This allows the students to view the required book list amongst other integrated features with books and supplies.
10. A marketplace to purchase new books, supplies, and tools through the app based on the course instructor's requirements list.
11. Search box that links external news articles related to coursework, so students can keep up on the latest trends related to their classes and major.
12. A used book marketplace where students can buy/sell/trade books.
13. Search capabilities that link a student's class schedule to the used book marketplace.
14. A 'study stopper' alert that allows a student to optimize their study time, while still getting the allotted mental breaks needed for maximum content absorption. It also alerts them to return to studying after the break.
15. A database of sample questions that best represent a course's content. This gives students a snippet of the content and coursework related to a class. They can then decide if that course is right for them.
16. Employment services job board that allows companies to post jobs to the site. This allows students to see the potential career paths and job descriptions related to their major.
17. Integration of university-offered tutoring sessions. "Tutor Central" links graduate students that offer tutoring with the students in need of help.
18. Notification alerts from the ULA's discussion boards go straight to the user's cell phone, allowing the user to access fresh information and stay in the discussion.

Research plan for University Life App

Background & Goal

The University Life App (ULA) is a new application that is being developed for American universities. The purpose of the app is to make earning a college degree simpler and more fun for the students by creating an environment of interaction and openness throughout their college experience. Currently students at most universities have to sift through resources from multiple sources which can be confusing and frustrating. This leads to students missing important information or struggling to enjoy their first life experiences away from home because they are unsure if they are focusing on the right things.

The goal of the app is to allow students to share their college experiences with other students. It allows the more experienced students to help the younger students "learn the ropes". It also allows faculty to share information specifically syllabi, book needs, and supplies to make them more effective learners. The app needs to be accessible to thousands of students and be scalable across numerous platforms (mobile, tablet, desktop, etc.). The universities that purchase this app will also offer a one credit hour course to show their support for the app and promote student's use of the app. This course will be a "new student orientation" course that will introduce college life, school spirit and integration of the app into student life. The administration will have to promote the use of this app to all faculty members, to ensure students get the most from it.

User groups

For our research, we will target two main groups of people, active college students and faculty at mid-range universities (15,000 – 20,000 student enrollments). We will select five universities spread out amongst five regions of the country (northeast, southeast, Midwest, Texas/plains, and west coast). Qualified students need to be in "good academic standing" with their home universities, meaning their tuition is paid up, their GPA is above a 2.25 and they maintain a minimum of 12 credit hours workload. We want to interview students from all student classes (freshman, sophomore, junior, and senior levels) and from the various degree paths (business, liberal studies, English, etc.). The same is true for the faculty. We want a pool of professors and doctoral instructors with varying years of experience (rookie professor to tenured PhD), that teach across numerous degree paths. We want ten unique personas from the student body and faculty, respectively that embody the spirit of higher learning.

Methodology & Selection

We have selected five universities based on regional location and student enrollment ranging between 15,000 and 20,000 students. All research sessions will be done on campus in a central meeting venue capable of handling the size of the participants.

- Northeast – University of Massachusetts, Lowell
- Southeast – University of North Carolina, Greensboro
- Midwest – Cleveland State
- Plains – Sam Houston State University
- West coast – University of California, Santa Cruz

To recruit students, we will use social (Facebook, Twitter, Instagram, and the university website) and local print media (university newspapers), as well as, the central student gathering spots (post flyers in the student union hub, for example). We will motivate them to participate by offering free snacks such as pretzels, chips, cookies, and energy drinks to show up for the initial round of user research. We will use a short 15 minute survey to reduce the pool of participants. After the initial round, we will match up results and select a random pool of .5% of the student body (approximately 750 students per university) evenly dispersed across the various colleges and class bodies. For the 2nd round of user research, the students will be broken into focus groups to further reduce the pool of users. We will motivate them to attend by offering goody bags that include staple items like Ramen Noodles, Macaroni & Cheese, and other ConAgra fine foods. We will select the final group based on their persona, participation and affiliation to the college and student class defined above. This group will consist of ten individuals that embody the diversity needed to identify feature requirements that add value to this application.

To recruit faculty, we will send an open communication via e-mail to all faculty members with the support of the administration. We will utilize an online survey, to allow these busy instructors time to participate. They will be instructed to complete the survey within a short period of time. On average, American universities have a student-faculty ratio of 11-to-1 (approximately 1500 at our target universities). We will use a detailed survey that lasts approximately 30 minutes to reduce our group down to 75 (approximately .5% of the staff). We will then narrow this down to the final group by using a card sorting technique. Finally we will evaluate their tenure, educational background, coursework taught, and historical student evaluation reviews to get the final ten personas. We will motivate them to participate by offering discount cards for local businesses.

Research protocol for University Life App

We will be using the following protocols to ensure the environment surrounding the study is consistent and all participants are protected from security and privacy risks. We will focus on narrowing the pool of participants to capture the ten best personas from the student body and faculty, respectively. These protocols will be followed at all five university locations.

Students

Each university has approximately 15,000 students enrolled. We will need to use multiple media outlets to ensure the masses are notified of our research intent. We will use social media, local printed media (the campus newspaper), and the on-campus gathering areas like the student union to advertise. The communication will give basic information about the study, the location that students will need to meet for the initial survey, and the time it will take from start to finish. We will use a large gathering area like the campus auditorium that has fold-down table tops. We want to give the background speech and expectations at one time to ensure we deliver one message to the group. We will have pre-printed surveys for them to fill out. They will be supplied with pencils and the survey. The survey will be a brief 15-minute survey. We will have snacks available for the students. Single serving bags of chips, pretzels, soda, and energy drinks will be available once the survey is complete.

Initial survey questions would include:

- Basic information: name, age, field of study/major, expected graduation date, e-mail & cell phone contact.
- Personal background: hobbies and entertainment (TV shows, books, etc.) questions.
- Technology background: What devices are used on a daily basis? What devices are they capable of using? Are they open to new technologies? What websites do they frequently visit?
- School specifics: How do they find out about their coursework needs? Do they buy e-books or hard copies? Have they bought used books from other students or the bookstore? How do they keep track of their schedule and due dates? Do they use any on the universities online resources (if yes, give one positive and one negative feature)? How many of the university's resources do they use?

Once the initial survey results are calculated, we want to reduce this group down to 750 students (approximately .5% of the student populace). We want to disperse the offerings evenly using the following criteria:

- Years in school
- College of study
- Hard cover books vs. e-books
- Tech savvy skills
- Use of university resources

Focus Group – narrowing the herd

These students will then be classified into 25 groups of 30, to participate in the focus groups round of research. Here are some of the main questions that will be needed to break the ice and create an environment of individual involvement:

- How do you prefer to communicate with your instructors (office hours, e-mail, after class, etc.)?
- What are your study habits?
- How do you balance your school life and social life?
- Do the current apps offered by the school fill your needs to keep up with coursework?
- How do you envision the online school services benefitting you?
- How open are you to new technologies?

As the group answers these questions, we want to spark discussions that get everyone involved and leads to new ideations, problems and potential solutions. After successful completion of these meetings, the students receive a goody bag of Ramen Noodles, Macaroni & Cheese and other ConAgra fine foods. Once the team compiles the notes and results, they must now narrow down the personas to the final ten. These ten students embody the university lifestyle that is apparent in America today. We decide to use Jonnathan as our highlighted persona. His story is typical of a young adult that is trying to grow into adulthood in the American University system.

Faculty

Each university has approximately 1500 teaching faculty members. We will need the support of the school administration to contact the faculty for our research study. Since the staff is usually extremely busy and difficult to gather in one location, we will invite them to participate in an online survey using SurveyMonkey.com. They will have a 5 day window to complete the survey. The questions will mirror the student's initial survey. Additional questions include educational background, years of experience in a teaching environment, years in a university setting, and the methods used to communicate with their students. The survey will last approximately 30 minutes. We will select the best 75 candidates based on fields of study/teachings, technological ability and daily use, campus life involvement and historical reviews from course feedback.

Once the remaining 75 instructors are identified, we will invite them to an informal dinner event where we utilize the card sorting technique to rank their core values. We will then log this information and do a separate card sorting exercise to identify a wide range of features that are available on other university's integrated learning sites. Both card sorting exercises will have them rank the importance of the core values and application features based on their respective belief systems. After the event, we disperse the gift cards and return to compile the result of the card exercises. We wrap up the information compilation by evaluating the results of the features and core values with their tenure, educational background, coursework taught, and historical student evaluation reviews to get the final ten personas. We decide to use Dr. Ferdinand as our highlighted persona. He embodies the traditional "American Dream" story of a child that overcomes great challenges to become a successful member of society.

Persona #1 - Jonnathan
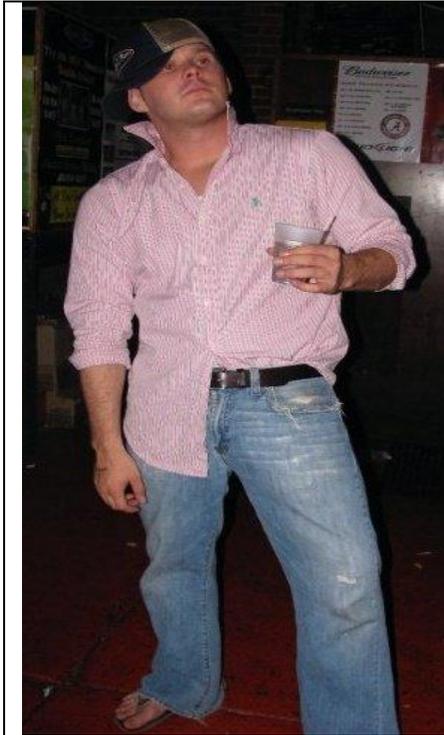
Jonnathan: 22 years old, full-time undergraduate student from Cleveland, OH

Jonnathan is a 22-year-old fourth year junior at his local university. Jonnathan entered into college with a very "cocky" personality and was prepared for the "frat boy" lifestyle that he looked for when choosing this university. For Jonnathan, choosing a university was not so much about what they offered academically, but more so the party environment.

Jonnathan entered school with a vague sense of wanting to become an obstetrician. However, into his second year, Jonnathan met a girl who convinced him that he would rather pursue a career in Orthodontics. Jonnathan's parents were very disappointed in this change, but because of his low GPA encouraged this change in majors. To his parents' disappointment, the change of his major did not reflect in better grades. Jonnathan continued on his party lifestyle within the school and lacked direction in studies, as well as, attendance in class.

As a fourth year Junior, his parents' have now decided to put him on notice. Jonnathan must decide if he wants to continue his current frat boy life, or put a serious effort into his schooling. If he chooses to continue on the same path, his parents will cut all financial support. If he is willing to work hard and pursue a Bachelor's in Accounting, his parents will continue to assist him financially.

Jonnathan spends most of his time on his iPhone, using social media sties. When it comes to his technology skills, he is a very novice user. While he can navigate websites for his personal use, Jonnathan is unsure how to go about using it for research or academic purposes.

Miscellaneous facts

Education: Current Undergraduate Student

Internet Usage: Experienced user in social media sties, limited knowledge in computer use and websites not pertaining to social life.

Mobile: Experienced user. Uses it for personal communication and possibly some e-commerce sites such as Amazon.

Favorite websites or mobile apps: Amazon, Netflix, and Facebook

Television shows: Party Down South, Big Brother, Real World, Dancing with the stars.

Other hobbies: Partying, drinking, meeting girls.

Sales influences: Will pay more for low quality products if suggested by friends. He has no concept of bargain shopping and is more interested in status than value.

Motivators

For Jonnathan, he is forever looking for a way to skate by; this has been found through sports and the mentality of doing just enough to pass. Now that his parents have put the ultimatum on his continued education; he finds himself not wanting to enter the non-college student life yet and has decided that his parent's financial support is the only way to continue his current lifestyle. Because of this, Jonnathan has decided to pursue the accounting degree his parents have chosen for him and is now focused on bringing his GPA from a 2.3 to a 3.0 or higher.

Goals

Jonnathan has now embraced his parents' goals of earning his accounting degree. He will now focus on his academic life instead of his current care free lifestyle. To obtain these goals, Jonnathan has sought the advice of his advisors and professors that he believes can help him. He is hoping that the use of a one stop tool will help him achieve his goals.

Persona #2 - Dr. Ferdinand

Dr. Ferdinand: 30 years old, full-time Professor of Literature from Waco, TX

Dr. Ferdinand is a 30-year-old Professor at his local university. For Dr. Ferdinand, he entered the profession of teaching with a deep sense of awareness to some of the struggles that students face. While Dr. Ferdinand was able to stay on track with his educational track, and received his PhD in Education Leadership; Dr. Ferdinand witnessed many of his fellow classmates succumb to the stressors of college.

Upon completion of his PhD, Dr. Ferdinand went straight to teaching. His ultimate goals consist of not only opening students mind to the world of literature, but building a relationship that is based on respect of academia as well as friendship. Because of his drive to form these relationships with students, Dr. Ferdinand has found himself becoming an advisor to not only his own class of students, but to many that just need help from someone who has been there.

Dr. Ferdinand decided early on that he would open himself to all the student body, and took it as a challenge to learn all that his current university had to offer for undergrad and graduate students. Dr. Ferdinand spent many hours working with the technical department of his university to make sure that he knew the current online support that was available to students. Because of his knowledge in the student needs, Dr. Ferdinand has been able to assist the technical department in the addition of many new features.

Dr. Ferdinand spends a lot of time on the computer. While he does own a note3 mobile phone, he prefers the size of his laptop. He tends to visit lecture sites and is always searching for new teaching techniques to engage his students.

Miscellaneous facts

Education: Four years Bachelor in Liberal Studies with a focus on Literature. Two Years Master's in Education and Literature. Two year's PhD in Education Leadership.
Internet Usage: Experienced user in all aspects of the internet.
Mobile: Experienced user. Uses it for personal and work communication and all aspects of research, shopping, and general use.
Favorite websites or mobile apps: Amazon, Educationworld.com, teachingliterature.org.
Radio: Dr. Ferdinand listens to the University's local radio station and NPR.
Other hobbies: Reading, volunteering at the Boys and Girls Club, writing educational articles to encourage reading.
Favorite Food: Chimichangas
Least Favorite Food: Burgers

Motivators

Dr. Ferdinand finds a sense of accomplishment in his life by helping students reach their full potential. For him, the feelings that he receives from these achievements is enough to encourage him to continue on his path of empathetic compassion of students lifestyles and as well as becoming their lifelong friend.

Goals

Dr. Ferdinand ultimately wants to pursue his dreams of helping all students. For Dr. Ferdinand, he does not believe that anyone should fail if they are willing to put forth the effort to succeed. Dr. Ferdinand assists all students who come to him even when they are not majoring in his field of study. While Dr. Ferdinand knows that the success rate of the student is ultimately on them, he feels a deep sense of urgency to help the students realize that their life depends on their education.

University Life App scenario #1 – Jonnathan

Jonnathan is returning to school after a leisurely summer break. While he enjoyed the time off, he knows it is time to buckle down and take school seriously. Upon returning home in early June, his parents had a heart-to-heart talk with him concerning his future at school and his journey into adulthood. They explained that he cannot stay in school forever, and needs to set a path for success. Failure to do so would result in him being cut-off financially. He would then have to continue school on his own, or drop out and get a dead-end job that he will most likely not like. They suggest accounting because it is a solid career path and Jonnathan has always been good at math. He cruised through the various levels of math in high school and college, so it should be an area he can grow to love. After years of partying and being one of the most popular guys in school, he knew it was time to pick a path of study, stick to it, and graduate. After much soul-searching, he decided to follow his parents and get a Bachelors of Business Administration in Accounting. As a creature of habit, he still wants to embrace the social aspects of school, but needs a tool to help him stay connected with the ultimate goal to graduate in two years.

While visiting his guidance counselor, Marnie, in the College of Business, they discuss the coursework he must take to graduate on time. Marnie sets up his classes for fall semester, and gives him suggestions for spring. Jonnathan is a bit overwhelmed with the thought of taking 15 credit hours (which he will need to maintain to finish in two years), so Marnie shows him the ULA app. She helps him create an account and links it to the school's system so that his class schedule is integrated. She shows him how to set-up the personal goals, and also modify the layout to match his style. He needs to finish fall semester with at least a 3.5 GPA. Marnie shows him "Tutor Central", a great tool that links graduate students who offer tutoring sessions, with students who are in need of assistance. Jonnathan hates to pay full price for books, so she also shows him the used book section of the "Textbook Marketplace". All of these tools are menu options on the top row of the screen. Their 30 minute meeting ends with Jonnathan heading to the student center for a sub from McAlister's Deli and a mocha frappuccino from Starbucks using his campus card. With a few days left before classes begin, Jonnathan contemplates his life moving forward.

The next day, Jonnathan decides to start planning his strategy for the semester and checks out the ULA on his iPad3. He is well-versed at using technology and figured he should be able to get the remaining tools set-up on his own. He also wants to get a jump start on his book purchases. The cheaper he gets his books, the more money he can spend at the bars next weekend. Jonnathan logs in and adjusts the layout using the "Settings" menu option. He changes the color scheme to match his beloved school and adds a cool selfie to show off to the other students on the ULA. He clicks on his course schedule and syncs it with his iPhone6 Plus. He keeps all the best concerts and parties on his personal calendar for quick reference. Now his ULA course calendar and personal calendar will match. Because the ULA calendar has already been populated by his instructors, he knows which Thursday nights he can hang out with his buddies at the Twisted Taco for buckets of beer and $1 dollar fish tacos, and which nights he will need to study for exams. This excites Jonnathan because he doesn't have to wait for the first day of class to see his school schedule. It is all on this iPhone and iPad.

Now it's time for Jonnathan to see what kind of damage his books will do to his party budget. Too many times in the past, he procrastinated and was stuck with the expensive new books at the Mega-Bookstore on campus. With the click of a button in ULA (using the instructor's requirements feature), he can get the ISBN codes and search the used portion of the "Textbook Marketplace". He delves deeper and begins to add books to his shopping cart. The ULA has created a free market capitalist opportunity for the local mom-and-pop bookstore thus allowing competition with the Mega-Bookstore chain. Jonnathan fills his shopping cart and checks out using a rechargeable VISA check card that his parents monitor. Since the bookstore is close to campus, he has them hold the books until he can walk across town at lunchtime for pickup. Jonnathan begins to get excited about the fall semester.

He decides to return to his "profile page" and play around with the "study stopper" feature of the app. One of Jonnathan's biggest issues has been his inability to study at the optimal times and for the proper timeframe. Studies have shown students who know when and how they learn best, tend to score better on tests than students who procrastinate and cram. The ULA offers tips, techniques and pre-sets that will assist him with his study sessions. He takes a short questionnaire and the system tells him that he needs to study for 45 minutes and take a break for 15 minutes during each hour that he studies.

He integrates this into his calendar. For the first time, Jonnathan actually feels prepared for school. He wonders why the ULA wasn't offered before this school year. He heads out to get a bite to eat and later to the mom-and-pop bookstore to pickup his books.

Fast-forward six weeks: It is now week five of the fall semester. Jonnathan has completed his first round of exams and submitted numerous papers. He's been an active participant of the "Community" menu option. He participates in discussion groups related to his classes (hosted online by the ULA), he checks the posted syllabi and class notes sections (located in the "Classroom" menu option), and frequents ad-hoc study groups that are scheduled using the ULA "Community" menu option.

Now he wants to see if the new system tools and study methods are helping his cause. He clicks on the "Academic" menu option and selects the "Grades" sub-menu. Each class appears in its own block with a summarized listing of grades-to-date. If he clicks on the individual class, it opens a pop-up that shows the detailed breakout of assignments. He currently has a 3.75 overall GPA in the first third of the semester! He gets excited and begins to feel a level of satisfaction never felt from the academic portion of school. He checks his integrated calendar (located under the "Calendar" menu option) and determines that he can take a break from studying tonight to celebrate his small victory.

Jonnathan begins to realize that there is more to school than partying. With ULA as a support tool, he is confident that he will reach his goals and graduate in the class of 2016.

University Life App scenario #2 - Dr. Ferdinand

Dr. Ferdinand grew up in a challenging environment. His father abandoned him, his younger sister and mother at an early age. His mother had to work three jobs to make ends meet for the two young children. He had to step up and take care of his younger sister before and after school. Although it was challenging to have to take on the adult role at such a young age, he embraced the responsibility and found it to be rewarding. As he worked through grade school and into high school, he found reading novels and the classics allowed him to escape from the realities of life for a short time. They would lead him to magical places and characters that he couldn't meet in real life. He also had a knack for learning and mentoring while at school. He would do his best to help students who struggled with reading and English. After graduating near the top of his class in 2002, he received a full ride scholarship at an accredited university.

He took full advantage of the educational opportunity and graduated magna cum laude. During his four year tenure, he was a freshman orientation instructor for three years and volunteered for afternoon tutoring sessions to assist students struggling with literature and English courses. Realizing he couldn't do much with his liberal arts degree and understanding that his passion for helping others has lead to personal fulfillment, he decides to go straight into graduate school at the same university. In graduate school, he begins to make connections with many of the local businesses and volunteers his time at the local Boys and Girls Club. He becomes involved with his local community and many influential people in the local community embrace him for his charitable actions. He continues on to earn his PhD and becomes a full-time faculty member at an accredited university near his alma-mater.

As a faculty member, he continues to mold young minds and assist them with college life and the stressors of adulthood. He enjoys mentoring young people, but wishes there was a tool that could reach more students. He learns of the ULA app and begins promoting it to all of his students. He sets up his account using his work laptop. He likes the personalization features and the fact that he can set a rotating list of quotes from his favorite authors, to be displayed on his "profile page". The app has a very friendly interface that lists all the standard menu options across the top. These tabs then expand into subfolders with more detailed features available. As a faculty member, he enters the administrative section (using a secure log-in) and integrates his syllabi from word.doc to the site, his required readings list for each class (books with ISBN), and any tools or supplies that might be needed by the students (such as bookmarks, clip-on LED reading lamps, etc.).

He wants to go a step further and create a communal discussion group that will add value to his classroom lectures. He enters the "Trending" menu option and adds a new discussion board. He submits topics for discussion and invites the students in his classes to be a part of the discussion. He even allows students to volunteer to manage his discussion boards, so they become involved and take ownership. He uses the notification alerts feature to keep the topics active for longer periods. He always felt that traditional office hours were too limited and confining. He turns on the video chat feature and schedules "open chat hours" to assist students with questions or concerns about his classes, or anything else university related. He constantly promotes the "Tutor Central" feature for students that are

uncomfortable coming to him for help. He creates links to this feature on all of his communications, discussion boards, and notifications (using his signature block).

As the semester wanes and students begin to embrace the ULA, he wants to help them even more. During winter and summer break, many students like to get a job so they can save up money for the following semester. Dr. Ferdinand actively seeks employers looking for part-time or seasonal help. He posts employer links and Human Resources contacts on his employment services page. He is well-respected in the local community, so he has no trouble getting numerous businesses on his page. The students get direct access to the employers to fill out an application and also send a resume where applicable. All of this is done using the ULA system. Thanks to Dr. Ferdinand, the ULA app becomes a cornerstone of the Literature Department. His fellow faculty members embrace his commitment and begin using the system in their classes as well, ultimately creating a more tight-knit community.