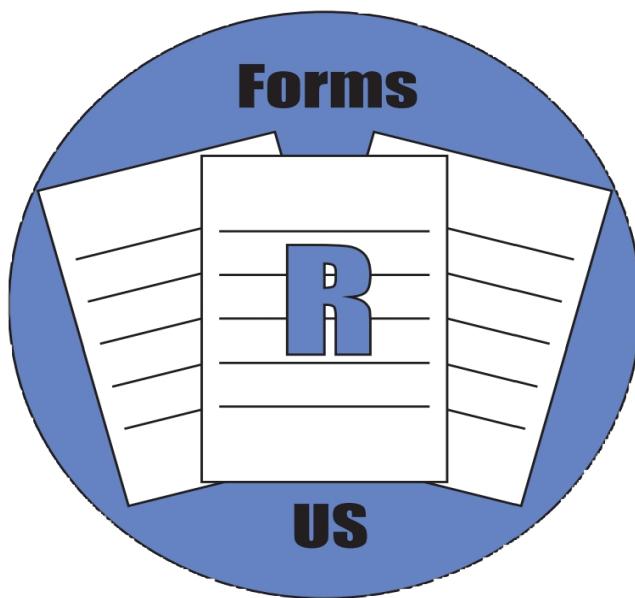


UNCW Graduate Capstone/Thesis Workflow System



Developed by Forms R Us

(Sydney Walden, Sebastian Woodlock, Paul Novak, Christina Nguyen, Kenny Wertz,
and Logan Harvey)

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Delivery #1 – Software Project Plan

Introduction

Project statement

Our client, Dr. Ron Vetter, has requested for our team to update the University of North Carolina Wilmington (UNCW) M.S. Computer Science & Information Systems (MSCSIS) Forms section on the UNCW website. There are several issues with the current process for students to access these forms, fill them out, and submit them. Dr. Vetter would like for our team to not only make this process work, but to simplify the process and to make it fully electronic yet printer friendly. The following list contains the main objectives in the highest priority order.

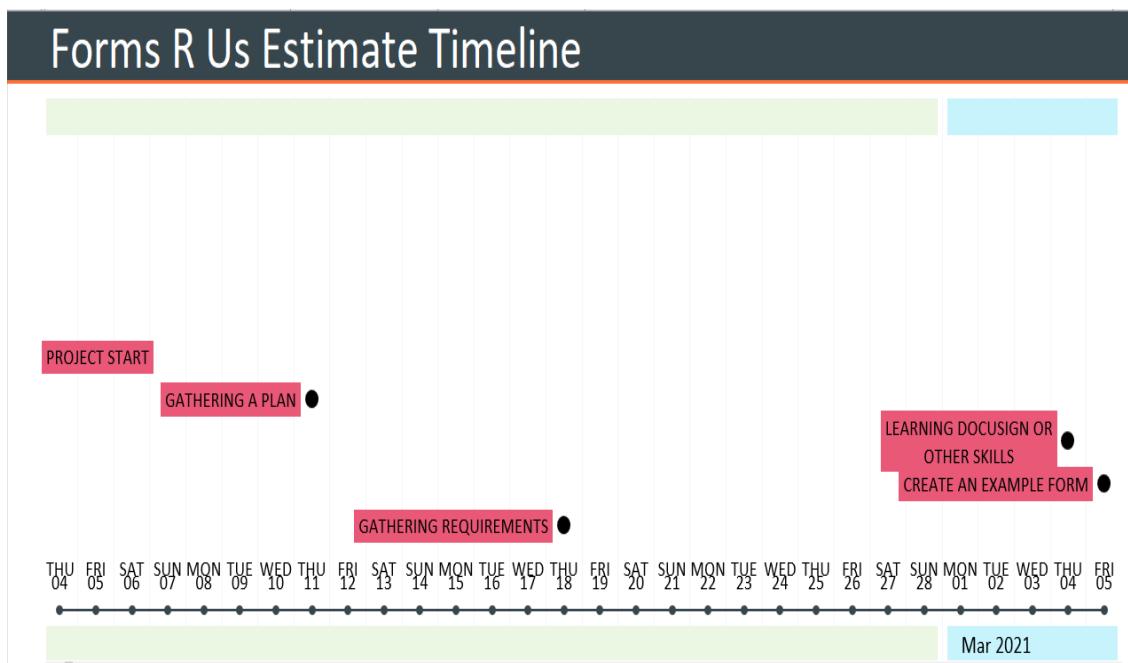
Objectives

- Creation of 599 thesis form
- Update all forms to be easily fillable
- Create a workflow system for these forms
- Update these forms to look modern and professional

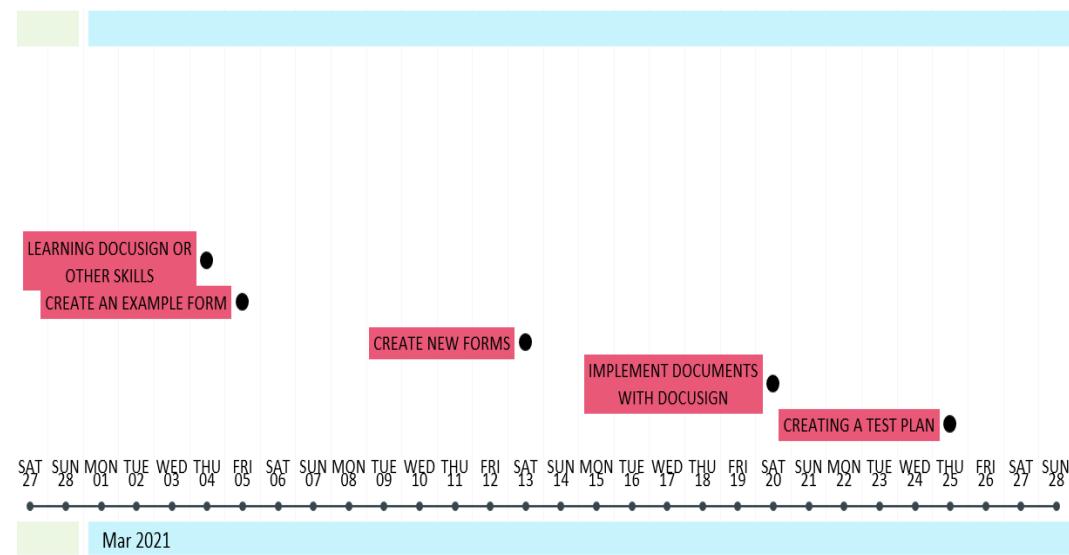
Additional Objectives

- A diagram that will explain the process and order to fill these forms (workflow system)
- Make these forms routable
- A database that could store the completed and in progress forms
- Allow for invites to sign documents for external signers
- Redesign the MSCSIS logo

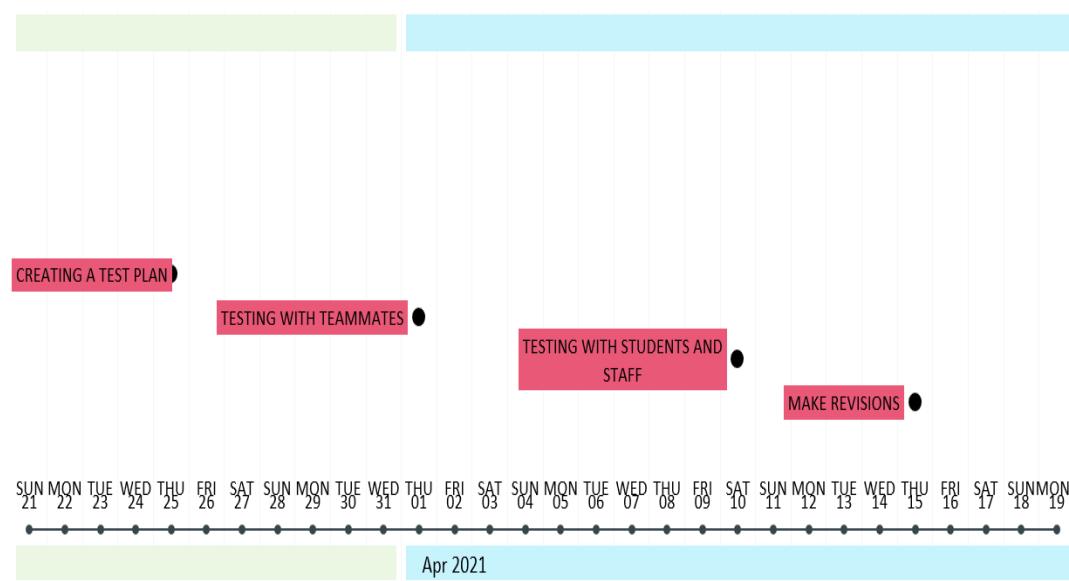
Project Estimates

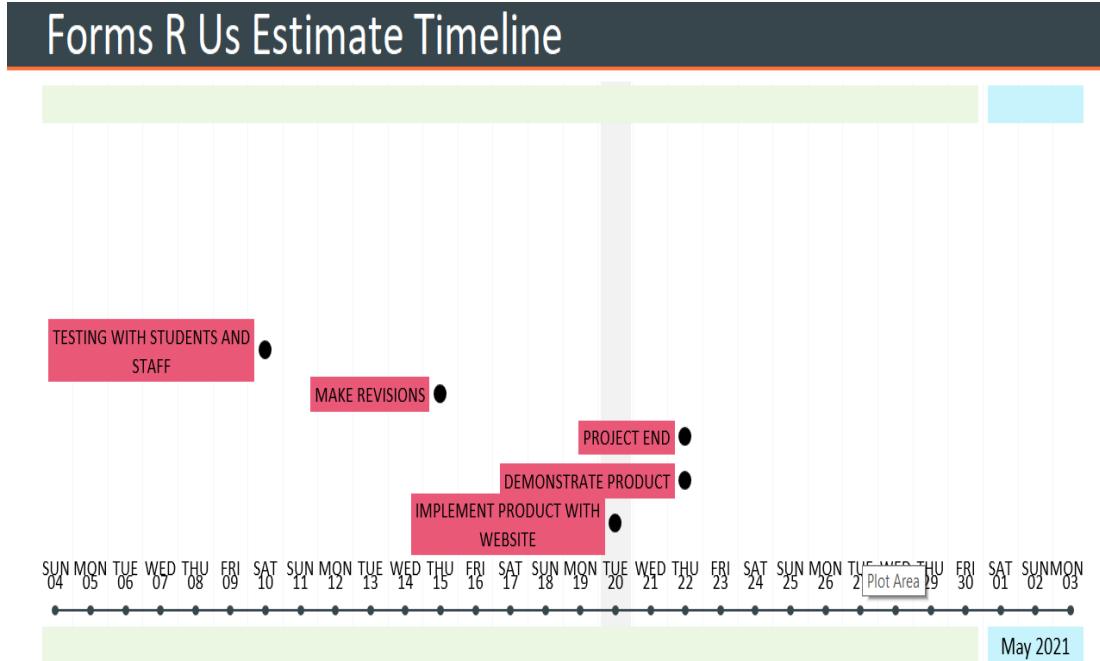


Forms R Us Estimate Timeline



Forms R Us Estimate Timeline





Project Risks

Risk identification

- Given that we are living in the midst of a global pandemic and receiving weekly testing for COVID, it is highly likely that at least one team member gets sick at some point in the semester.
- There is also a small chance that all or a majority of team members will get COVID during the semester. Depending on the timing of this, this could be a high impact scenario.
- Based upon previous semesters and the warnings issued early on in this class there is a good chance that the class stops meeting in person and transitions to online. Our meeting times so far are after class Tuesday/Thursday so this could have a high impact on scheduling.
- Based on previous group experience it is not uncommon for a group member to entirely disappear without warning and become impossible to contact, not returning texts or emails. This has a small likelihood but would almost certainly be high impact.
- Up until the add/drop date it is possible a team member will drop the class for any myriad of reasons. This is a moderate risk with moderate impact since they would likely be leaving before we are too far into the project.
- At any point technical difficulties may pop up resulting in lost progress on the part of a group member.
- With several different pairs within our team there is a risk that a pair can become complacent near a deadline when there is not enough time for the rest of the group to compensate.

Risk Estimates

- 75% chance
- 20% chance
- 25% chance
- 20% chance
- 25% chance
- 80% chance

7. 25% chance

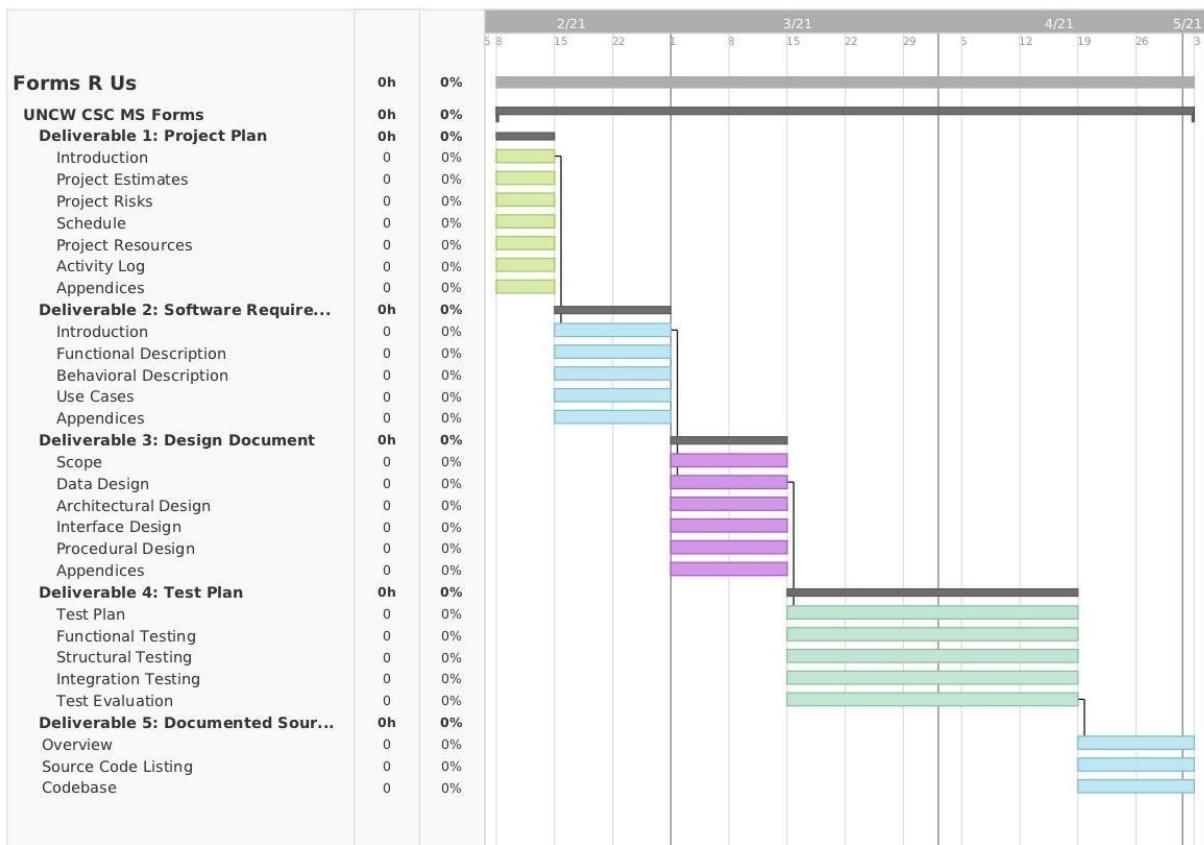
Risk Resolution

1. Our solution to one team member receiving covid-19 is to continue to allow them to submit what they have online, and should the disease/quarantine impede their ability to finish their assignment then whatever is left of the assigned work will be reassigned to the secondary member of the team responsible.
2. In the situation that all or most team members get covid, then the assignment will be completed entirely through virtual meetings until the group is cleared. All meetings and communications will be virtual, and this will be communicated to the client (Dr. Vetter) in case this ends up impacting the final product. The severity of symptoms in each team member will be taken into consideration when assigning tasks.
3. If the class transitions entirely to online our meetings will change so that instead of meeting in person after each class period we would all zoom together afterwards, only meeting in person before important deadlines when necessary.
4. If a group member becomes unreasonably difficult to contact at any point in the semester then we will report them to a higher authority (Dr. Vetter) and reassign their portion of the project to keep things moving. During a teammate review at the end of the semester this would be brought up again.
5. In the event a group member drops the class we will use our new extra group member to fill their role, and take their place in the circulation of responsibilities.
6. We are using google drive for most work, so we'll trust in google to save our progress and aim to be done with anything not in the drive before the due date to provide time in case reworks or redos are necessary.
7. The responsibility will be handed to the current deliverable leader and the team will discuss how to address our teammate.

Risk Table

| Risk Desc | Likelihood | Resolution |
|--------------------------------|------------|--|
| Technical issues lose progress | 80% | Aim for early finish and save to google drive often |
| Team Member gets covid | 75% | Submit what's done / secondary team member takes over. |
| Class goes fully online | 25% | Reschedule meeting times |
| Team member drops class | 25% | Duties given to whoever the extra team member is |
| One team gets complacent | 25% | Report to higher authority, one that makes the deliverable does it |
| Majority of team gets covid | 20% | Communicate to client and have virtual meetings. |
| Team member is unresponsive | 20% | Report to higher authority and reassign tasks |

Schedule



Within the time period of 14 weeks, our team plans to refresh and streamline the process of submitting and routing MSCSIS Capstone/Thesis forms. Meetings will be held throughout the week, as frequently as needed and will be documented with time duration and minutes under "Activity Log". Listed above is a tentative schedule and is subject to change at any time.

Week 1 will be used to organize the team and finalize what kind of project we will be working on. Weeks 2-3 will be used to define the main objectives the project needs to fulfill and gather information about the team and how to utilize each member's strengths and skillset. We will also assess possible

risks and create a timeline with soft deadlines to help with time management. At the end of week 3, deliverable 1 will have been completed and submitted to Dr. Vetter for review and commentary. Any feedback received from Dr. Vetter will be taken into consideration and reflected in the next deliverable submission.

Weeks 4 and 5 will be used to work on deliverable 2 , where we will be introducing a high-level overview to our system. We will work to figure out any constraints that may be presented and describe the functionality and behaviors of our system using diagrams and descriptions. At the end of week 5 we will submit our compiled deliverables 1 and 2 for further review.

Week 6 and 7 will be used to focus on design specifications such as data, architectural, interface and procedural design and the completion of deliverable 3. Once again, upon the completion of deliverable 3 any changes needed to the previous deliverables will be applied and all deliverables will be submitted again.

Week 8 will be the beginning of implementation, and will span on until week 12. Once we have a working system in place, we will gather graduate students and faculty to help discover any issues and provide feedback on areas that need further refinement. Deliverables 1-4 will be submitted at the end of week 12. Week 14, the final week, will be used to review all the deliverables, document source code and demonstrate the final version of our system to our client.

Project Resources

People

- Sebastian Woodlock: Sebastian has a fairly thorough knowledge of Java and object-oriented concepts. Additionally, he provides useful graphic design skills with his experience in Adobe and Visual Studio
- Sydney Walden: Sydney has a good knowledge of operating with Java and web development. She provides good presentation and organization skills and has been providing notes on each meeting.
- Kenny Wertz: Kenny Wertz will provide organization skills for the team. Additionally, he has some knowledge of application development, networking concepts, and graphic design skills that can be applied. The application development knowledge can be used towards creating an interface. He has a fair knowledge of Java programming.
- Logan Harvey: Logan will also provide presentation and organization skills to the team. He will provide SQL Database skills if called for later in the project. Additionally, he has a good knowledge of Java and Python programming.
- Christina Nguyen: Christina provides web development skills along with a knowledge of Html and JavaScript. She also has graphic design skills with Adobe Visual Studio software.
- Jason DeGrace: Jason provides additional graphic design skills in Adobe Visual studio software. He is particularly strong in Python but has a thorough knowledge of Java. He knows how to access Satoshi and provides additional SQL Database skills.
- Paul Novak: Paul provides a well-rounded skill set in multiple languages including Java, Python, Html, and JavaScript. He particularly has access to good resources including his brother who has good web development skills. He also provides SQL Database knowledge.

- Dr. Vetter: Dr. Ron Vetter is our client. He provides requirements and additional instruction and advice to the team. With Dr. Vetter comes access to multiple sources from the Computer Science department and the ability to do surveys on a larger scale.
- Eddie Dunn: Eddie was a recommended source from Dr. Vetter for technical expertise on the required tasks.
- Lee Lapalucci: Lee is able to make edits to the UNCW Cameron and CS department webpages. He works under the Cameron School of Business and can help integrate our workflow system with the UNCW website.

Hardware

- Personal Devices: The only needed hardware is our personal devices which will be used to achieve all of our goals including any coding, graphic design, and web development purposes. No additional hardware is needed.

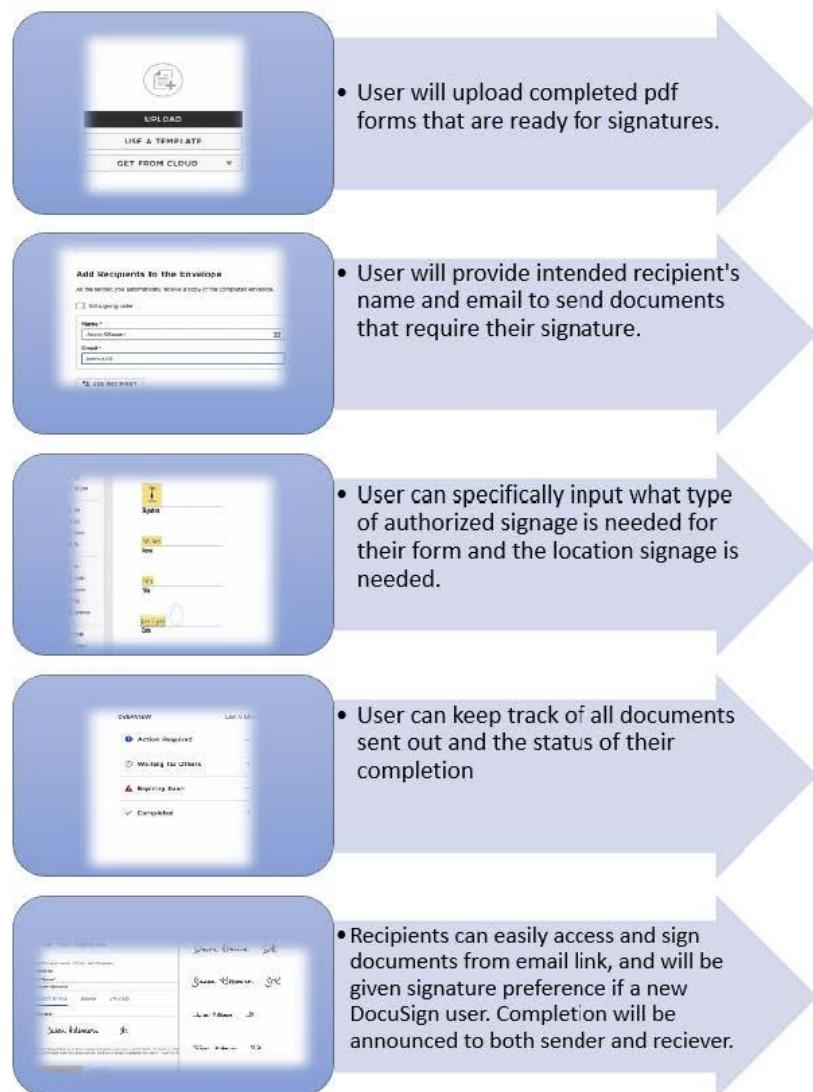
Software

- DocuSign: Will be able to interact with pdf documents through our code to convert these documents into a document that can be digitally signed.
- Pdf viewer and/or Microsoft Word: These pieces of software will be used to view and edit the graduate school documents for this project.
- UNCW Website: This project will require tampering with a portion of the UNCW website in order to load in the updated documents and possibly redo some structure of the Computer Science and Information Systems M.S. section of the website.
- Adobe Creative Cloud: We will be utilizing features of Adobe Design software including Adobe Illustrator and possibly InDesign. This will help to improve upon the aesthetics of our project and create new logos and layouts for documents.

Delivery #2 – Software Requirements Specification

Introduction

System Reference Diagram How Does DocuSign Work?



System Requirements

- Allow the user to fill out the form.
- Auto save forms in progress.
- Route documents to the advisor / committee
- Allow actors to download a printable version
- Resend signature request if needed after allotted amount of time
- Easily modifiable after initial set up

Software Project Constraints

- Time Constraint (due date)
- Whether our team will have access to the school DocuSign system
- Coordination of team and meetings
- Being able to iterate and polish with given time

Functional Description

Functional Partitioning

- New Entry: This is the stage in which a document type is selected and a new entry is made.
- Document in Progress: The document is stored in this stage as a document in progress until it is filled and signed.
- Document Filled and Signed: The document is filled and signed making it ready for routing.
- Document Routed: The document has been routed and is either being routed to the next person or the document is awaiting approval by the administrator.

Functional Description

- Processing Narrative

The workflow management system will allow graduate students to *select, fill out, sign, and route documents to the graduate programs office* (faculty, advisors, and administrator). These forms will be easily saved and accessed at any time. The form will route from person to person for signatures until it finally reaches the administrator for approval. The administrator should be able to have similar accessing ability to the students *filling* and *routing* forms. Each form will require the student, 3-5 faculty members, an advisor, and the administrator to sign.

- Restrictions/Limitations
 - Docusign does not have flexible signature orders.
 - We are relying on Docusign to always be up and running.
 - We are also relying on Docusign to be safe and secure .
 - We rely on Docusign to properly route the document to the correct addresses.
- Performance Requirements
 - The Graduate Student must be able to choose a document to open.
 - The system must create a new entry when a document is selected.

- Students should be able to fill in and sign documents.
- Documents in progress and completed documents must be stored somewhere to be pulled for access from where it was left.
- Students must be able to route documents from faculty to advisors and then the administrator. It should route from one person to the next until it gets to the administrator who gives approval to the project.
- The administrator to be able to route the document back to the student with a signature of approval.
- Multiple documents can be held in progress at once.
- Design Constraints
 - Document can not be routed to more than one person at once.
 - There is no security aspect limiting those who can submit capstone documents.

Control Description

- Control Specification
 - Access Documents
 - Save Documents
 - Fill and Sign Documents
 - Save Documents to a place of storage
 - Route Documents
 - Access filled Document
 - Receive Final Recipient
- Design Constraints
 - Document can not be routed to more than one person at once.

Behavioral Description

System States

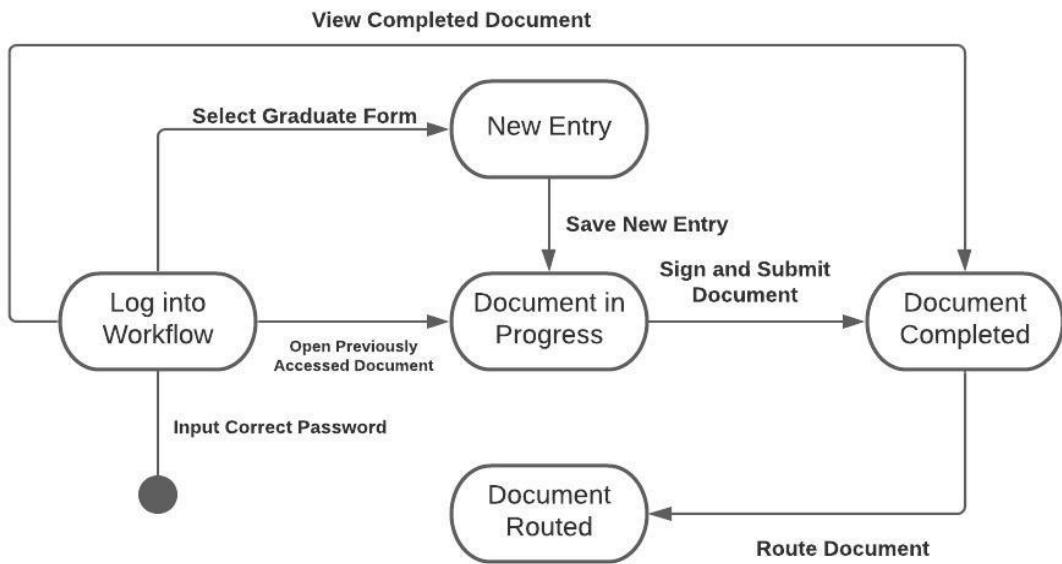
- Log into Workflow
- New Entry: A new entry is created.
- Document in Progress: The document is saved as a document in progress.
- Document Completed: The document is completed and is awaiting routing and remaining signatures.
- Document Routed: The document has been routed to receive remaining signatures.

Events and Actions

- Input Correct Password
- View Completed Document
- Select Graduate Form: The graduate student selects which form they want to fill out.
- Open Previously Accessed Document: The graduate student accesses their document in progress.

- Save New Entry: The new entry is saved as a document in progress.
- Sign and Submit Document: The document is registered as complete and ready to route to the department for remaining signatures.
- Route Document: The document is routed for remaining signatures and submission to the administrator.

Workflow State Transition



Use Cases

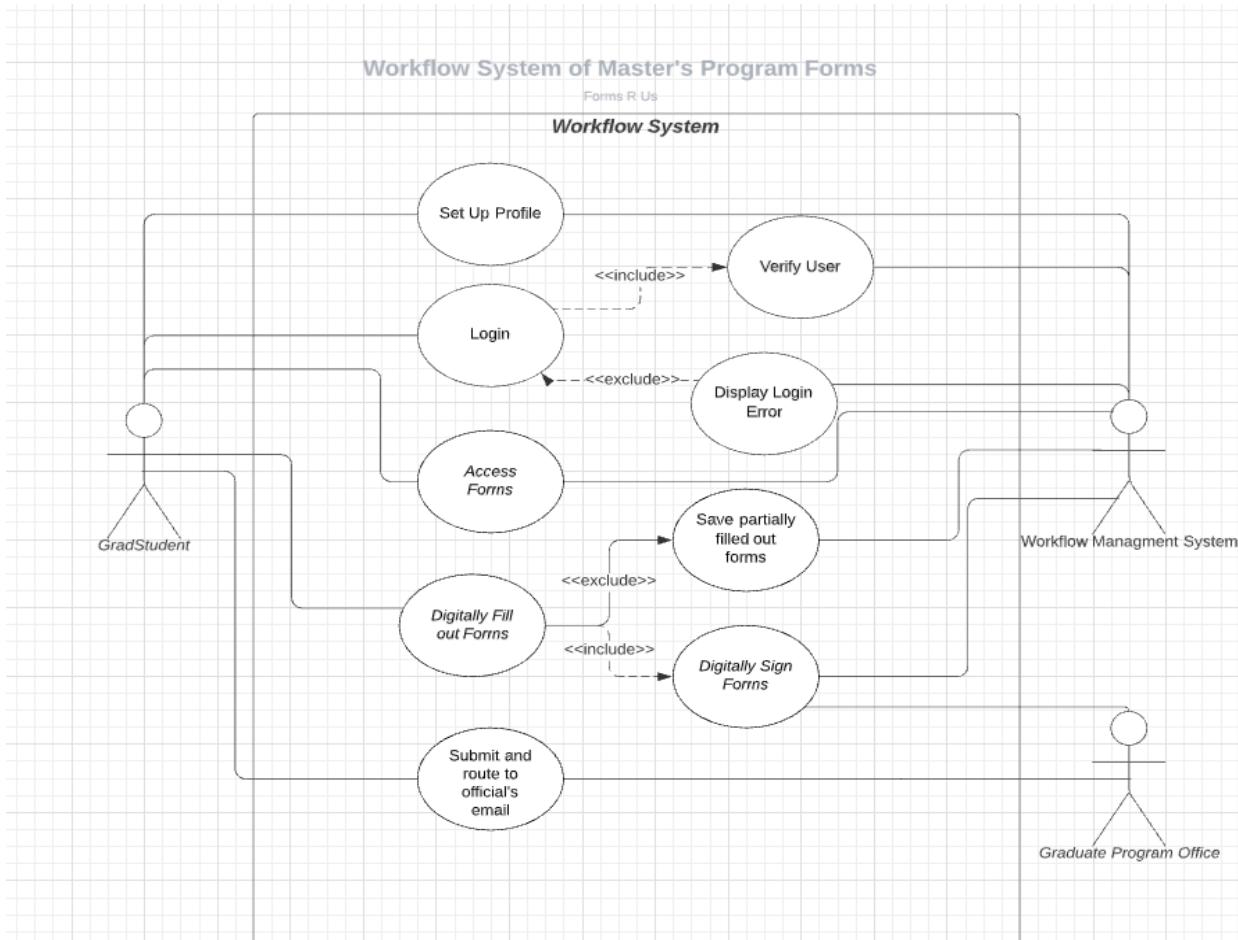
Stakeholders

- Dr. Vetter (Client)
- Graduate Students: The graduate students want an easy and efficient system to fill out and submit their capstone
- Graduate Programs Office

Actors

- Graduate Students: Graduate students will be interacting with the workflow system to select, fill out, sign, and route their capstone forms in an efficient manner.
- Graduate Program Office
 - Faculty
 - Program Director

- Workflow Management: The workflow management system will manage the documents on behalf of the student and the graduate program office.



Delivery #3 - Detailed Design Document

Scope

System Objectives

- Students will be able to fill out and sign required forms for their capstone thesis.
- Students, staff, and an administrator will be able to route documents to each other until it reaches the administrator.
- Documents will be well designed and easy to follow. Additionally, they should be aesthetically pleasing.

Major Software Requirements

- Documents will be fillable and signable.
- Filled and signed forms will be stored in the workflow.
- A list of CSC staff that can be routed to will be stored in DocuSign as well as the Graduate Coordinator.
- Filled information and signatures will be saved into documents.

Design Constraints/limitations

- Documents can't be routed to more than one person at once. One person must sign before the document is routed to the next.
- Information is only saved when the document is routed.

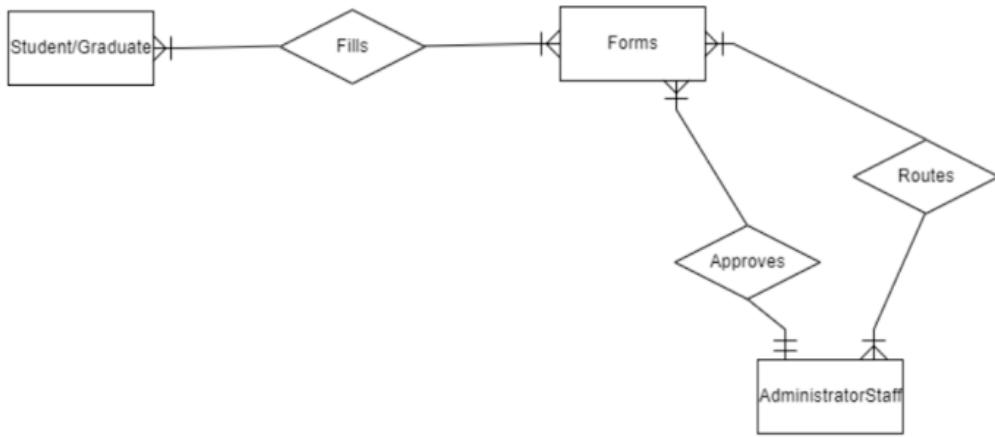
Data Design

Data Objects

- Student/Graduate
- Forms
- Administrator and staff

Relationships

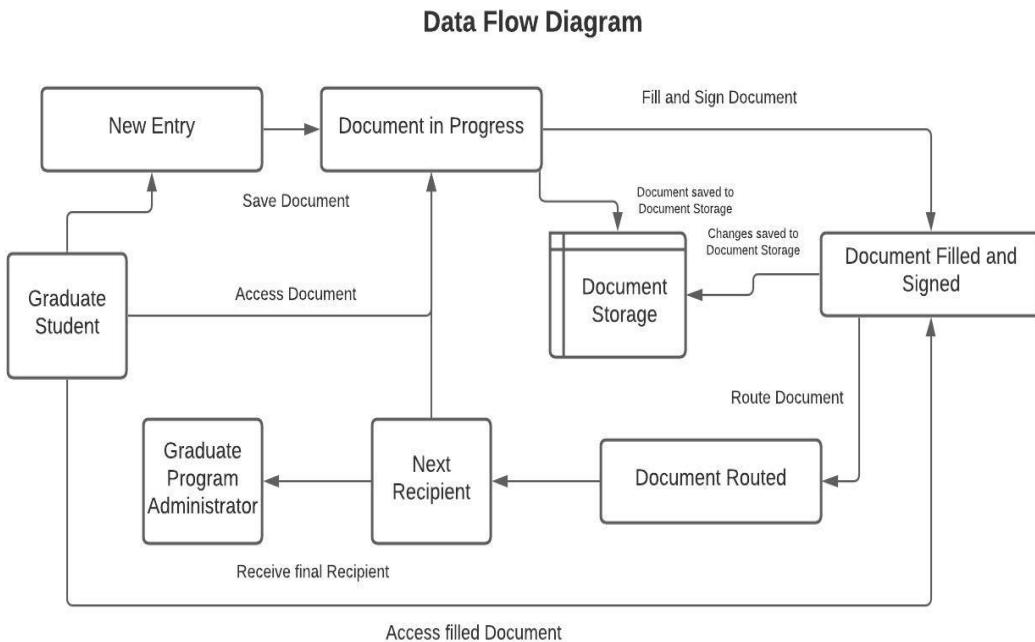
- The student fills the forms.
- The forms are routed to staff and the administrator
- The administrator approves the document.



Architectural Design

Review of Data and Control Flow

Our workflow management system with DocuSign will still allow graduate students to select, fill out, sign, and route documents to the graduate programs office (faculty, advisors, and administrator). These forms will be saved and routed using DocuSign's services. As our project continues we are still continuing to follow our original plan. Once the graduate student fills out the form, the forum will automatically be routed to the next person who needs to sign the documents normally one of the staff in the graduate programs office (faculty, advisors, and administrator). While these forms are being routed and filled out, DocuSign will be storing these forms on their servers. This gives us little worry about having to maintain the documents while certain people are filling out the documents. The Data Flow Diagram can be used to better understand the dataflow.



Procedural & Interface Design

Processing Narrative

DocuSign Powerforms enables pdf fillable forms to be accessed by Students through a link. This link will be placed on the UNCW Masters Program web page. When a link is clicked for a specific form, authorization by the student must be granted to use electronic records and signatures. Students will then only have access to what they specifically need to fill out. With all mandatory fillables filled, the “Finish” button will be selected by the Student. The form with the Student’s information will be automatically routed to the next intended recipient to view and sign in their intended section. Authorization by each recipient to use electronic records and signatures will be clicked before viewing the form. Once the document has routed through each recipient, the final document will be provided to each individual. A student who fails to finish the form in one sitting, may click on the options button(displayed with three lines in the top right corner) and will select “Finish Later”. The student will provide their email and then select “Save & Close”. The unfinished document will send only to the Student’s email and can be accessed to complete and begin routing. The option to Print may be selected by any individual with access to the form should they need a hard copy.

Human-machine Interface Specification

- *Website*
 - Routes to documents
- *Document*
 - Fillable forms

External Interface Design

- *Interfaces to external data*
 - Student, staff, and administrator names
 - Student, staff, and administrator emails
 - Signatures
 - Filled document sections
- *Interfaces to external systems or devices*
 - DocuSign
 - UNCW Website
 - Personal Email

Interface Description

The interface is split into a website portion and the actual document portion. Students have access to a set of document links on the UNCW's MSCSIS Forms website and can choose which document to access from there. Once the student selects the document they will be able to fill in their information and sign if needed then route the document. An email will pop up in the intended recipient's inbox with a request to review and sign the filled out form from the Student. The review of the document and signature portion of the form will be repeated until the graduate administrator is reached. Students are notified through email when the process is complete. Figures 7.0 - 7.6 will show the steps of the ideal process path:

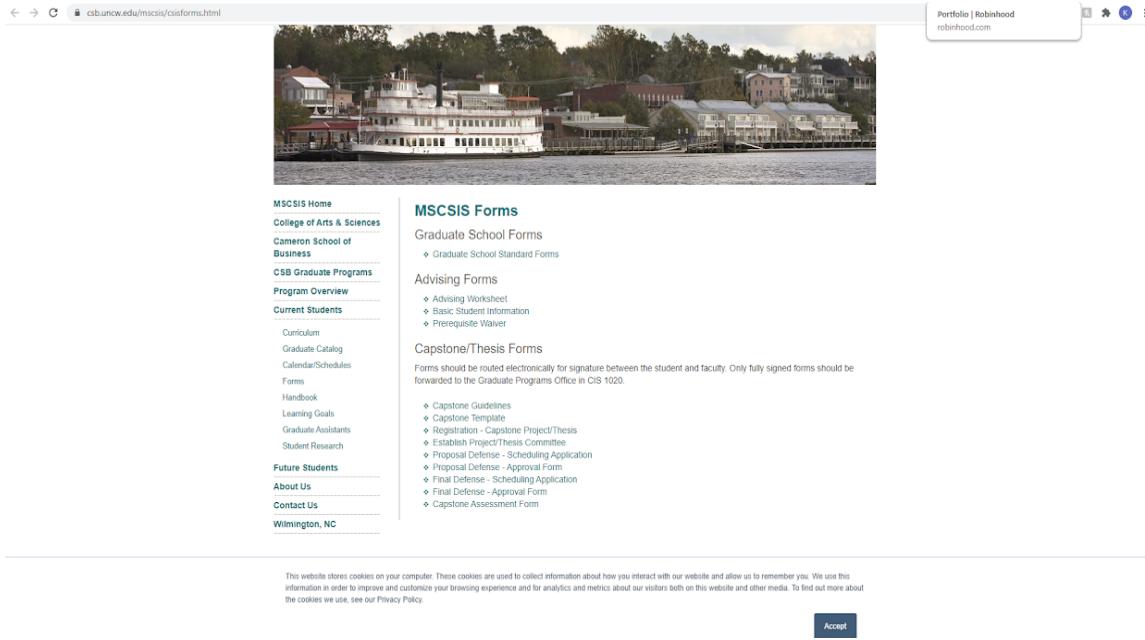


Figure 7.0: Students will visit the **MSCSIS Forms Web Page** where links will be provided to all possible forms they need, and will select the form they wish to complete.

The screenshot shows a DocuSign Powerform titled "Register for CSC/MIS 594 Capstone Project Credit Form". The form has a blue header bar with buttons for "FINISH", "FINISH LATER", and "OTHER ACTIONS". The main content area includes a UNCW Seahawk logo, a title, and a list of 8 numbered fields for input. The fields are: 1. Name, 2. Date, 3. Banner ID, 4. Email Address, 5. Term & Year (e.g., Spring 2008), 6. Department Prefix (selected), 7. Credits (e.g., 3), and 8. Capstone Advisor (select). Below the fields is a note: "Please return this form to the MS CSIS Graduate Coordinator no later than the first day of classes for the term for which you plan to register for capstone credit." The form is set against a background of a river scene with buildings.

Figure 7.1: Students will be directed to an empty DocuSign Powerform with access to only their intended sections.

Done. Select Finish to send the completed document.

FINISH **FINISH LATER** **OTHER ACTIONS**

DocuSign Envelope ID: 90B8952-0581-41f4-9c56-2f4d2b4de302

UNIVERSITY OF NORTH CAROLINA AT WILMINGTON
PROVIDED BY DOCUSIGN ONLINE SIGNING SERVICE
999 3rd Ave, Suite 1700 • Seattle, Washington 98104 • (206) 219-0200
www.docusign.com

**UNCW
BEACHWALK**

**Register for CSC/MIS 594
Capstone Project Credit Form**

1. Name:

2. Date:

3. Banner ID:

4. Email Address:

5. Term & Year: (e.g., Spring 2008)

6. Department Prefix: (i.e., CSC or MIS)

7. Credits: (e.g., 3)

8. Capstone Advisor:

Please return this form to the MS CSIS Graduate Coordinator no later than the first day of classes for the term for which you plan to register for capstone credit.

DocuSign Change Language - English (US) Copyright © 2021 DocuSign Inc. | VSM

Figure 7.2: Students will fill out mandatory sections within their intended document and select finish to begin routing to officials for review and signing.

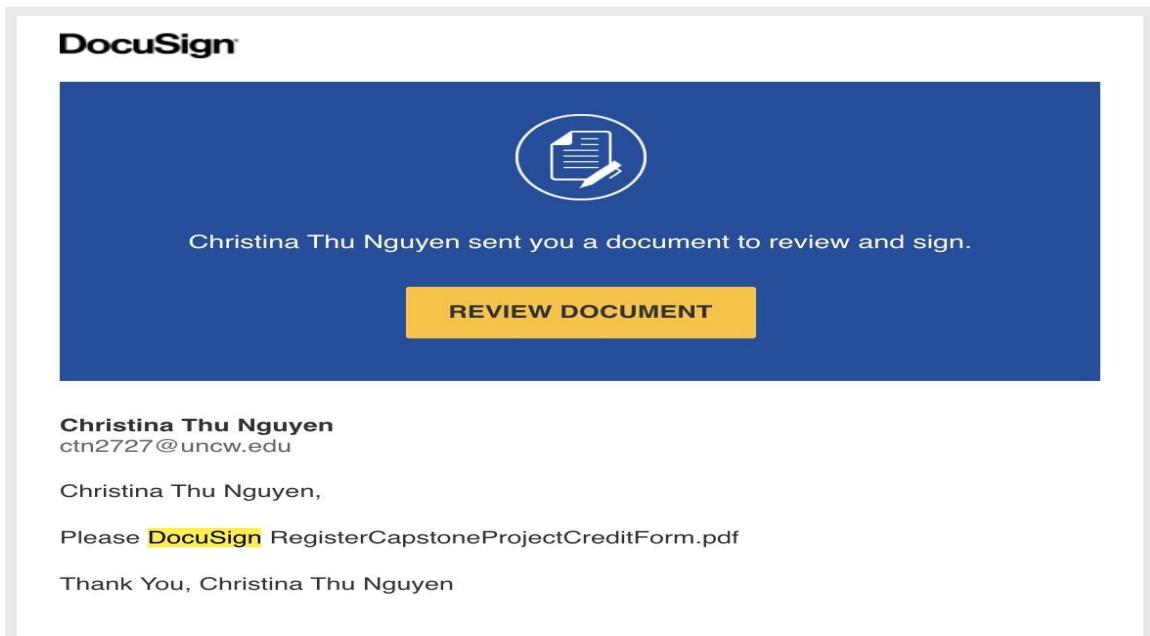


Figure 7.3: Recipients will receive an email requesting their overview and signature of Forms.

Please Review & Act on These Documents

Christina Thu Nguyen
UNC Wilmington

DocuSign

Please review the documents below.

CONTINUE OTHER ACTIONS ▾

SEAHAWKS

1. Name: Kenny Wertz
2. Date: 03/13/2021
3. Banner ID: 928438595813y45890
4. Email Address: kkw1215@uncw.edu
5. Term & Year: Spring 2021 (e.g., Spring 2008)
6. Department Prefix: CSC (i.e., CSC or MIS)
7. Credits: 3 (e.g., 3)
8. Capstone Advisor: Advisor 1

Please return this form to the MS CSIS Graduate Coordinator no later than the first day of classes for the term for which you plan to register for capstone credit.

DocuSign Change Language - English (US) ▾ Terms Of Use & Privacy ▾ Copyright © 2021 DocuSign Inc. | V2R

Figure 7.4: Recipients must accept and give permissions to use electronic records and signatures before viewing forms.

START

DocuSign Envelope ID: D7E17ABF-28C1-46F9-887C-8120189B64AC DEMONSTRATION DOCUMENT ONLY PROVIDED BY DOCUSIGN ONLINE SIGNING SERVICE 999 3rd Ave, Suite 1700 • Seattle • Washington 98104 • (206) 219-0200 www.docusign.com

UNCW SEAHAWKS

Register for CSC/MIS 594 Capstone Project Credit Form

1. Name: Kenny Wertz
2. Date: 03/13/2021
3. Banner ID: 928438595813y45890
4. Email Address: kkw1215@uncw.edu
5. Term & Year: Spring 2021 (e.g., Spring 2008)
6. Department Prefix: CSC (i.e., CSC or MIS)
7. Credits: 3 (e.g., 3)
8. Capstone Advisor: Advisor 1

Please return this form to the MS CSIS Graduate Coordinator no later than the first day of classes for the term for which you plan to register for capstone credit.

Sign
Received by: MS CSIS Graduate Coordinator 3 / 16 / 2021 Date

Figure 7.5: Recipients are able to review form from Student, and are given access to only their intended section.

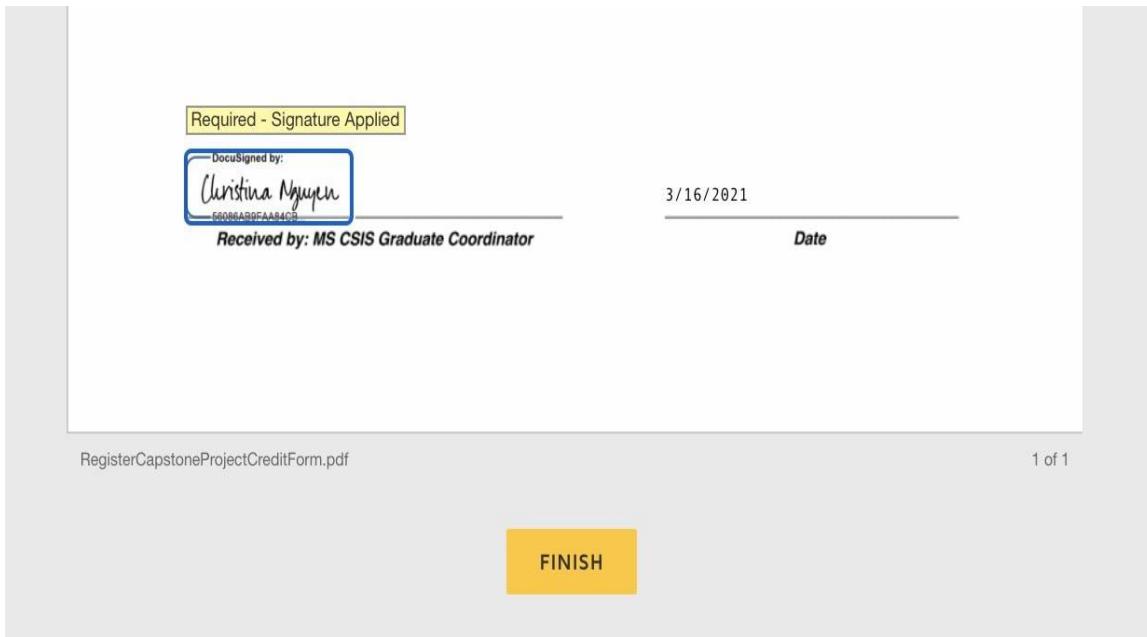


Figure 7.6: Recipient is required to electronically sign documents to complete Form.

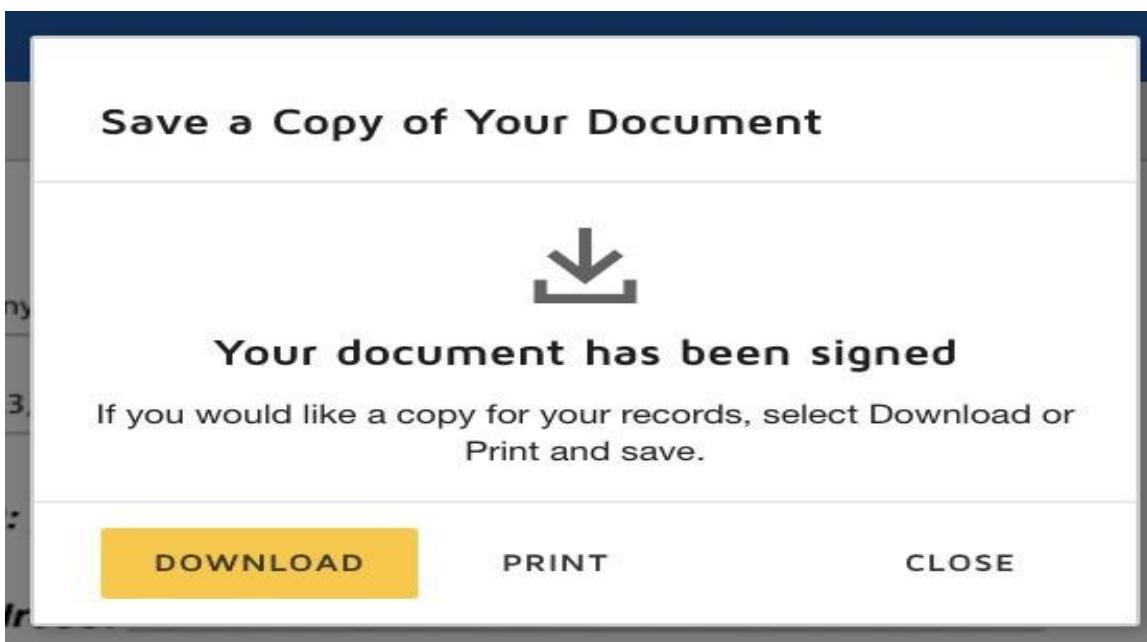


Figure 7.7: Document has been completed and ability to keep a copy is presented to all parties.

Comments/Restrictions/Limitations

- **COMMENT:** Emails expire after a while of non-interaction, the option to resend links to review and sign documents is provided to recipients of emails should they still need to view the form.
- **COMMENT:** The final document is sent to ALL individuals who interacted with the form.

- *LIMITATION:* There is the capability to “refuse to sign” a form and allow it to continue routing through.
- *RESTRICTION:* The intended path of emails the form is routed through after the student completes their section is embedded into the powerform before the student has access. This means students don’t have the ability to select who it routes to. Changes in the routing path needs to be done by the creator of the PowerForm.

Delivery #4 - Test Plan and Specifications

Test Plan

What to Test

- **Working Document Fields:** Documents must be able to take the proper forms of data and be signable by designated roles.
- **Documents Properly Routing:** Documents must be routed to the proper roles/receivers after being signed. These roles are supposed to be designated through the docusign administrator.
- **Documents are Aesthetically Pleasing:** Documents must be easy to read and access.

When to Test

- The first stage of testing was done among team members over the course of 2 days.
- The final stage of testing was done over the course of 6 days to give time for effective feedback as this portion was conducted amongst a volunteer group of students and staff.

How to Test

- Multiple users tested the DocuSign forms through filling out the different fields and routing to different roles. This was done first amongst teammates and lastly among volunteering students and staff. Surveys were given to ensure effective responses from everyone. This helped to determine how accessible and aesthetically pleasing everything is. Additionally, our client gave direct feedback on formatting and accessibility.

Integration Testing

Integration Strategies

- Black-box testing allowed us to ensure that the software was functioning correctly, performing tests without much regard for the internal logical structure of the software. We focussed on the overall performance and cohesion of the different aspects of our software.
- We used a bottom-up integration technique in order to carry out our tests, testing components at the lowest levels first. We sent documents to ourselves to test each aspect of each document (signing, filling, and routing). After testing the low-level components, we created a survey to be sent out to students and faculty to test the overall usability of the software in its entirety. Since we had already successfully tested the individual parts, we were able to test the software as these individual parts were running together. The survey allowed for feedback of aesthetics, convenience, and utility.

Test Drivers and Stubs

- Since the forms did not require writing any new code, we didn't need to utilize drivers and stubs to test the functionality. Testing was done using a white-box testing approach.

Test Cases

- The forms were sent to students and faculty as test cases. As mentioned before, there was no code added so the white-box testing was used to cover the cases. The form was sent to students

and faculty to fill out and their responses were recorded. The students and faculty then responded in a survey with any issues or comments they had while using the forms.

Functional Testing

Test Cases and Design Technique

- We will incorporate two main ways to test the functional requirements of our project. The first test we will conduct is attempting to fill out the forms and have them routed as a student, and also as other users who will need to sign certain documents. We will attempt to submit non-valid responses and unsupported data types to make sure only correct data types are able to be submitted. The second test we will conduct is a continuous one where we allow any of the users to report any issues they may encounter in any part of the process. This will allow our project to stay functional and discover any issues our original tests were unable to uncover.
- Thanks to DocuSign's control over what type of data can be entered into certain fields of the form (for example the date field will only accept dates in the correct format) our testing is expected to run smoothly. DocuSign should reject certain fields that could commonly be in different formats or characters that are invalid. This is one of the many benefits of using DocuSign as this will allow a greater efficiency on our client side. With little room for error on the user's side, there will be a lesser inflow of incorrect or incomplete forms.
- Because we are using DocuSign, the data volume and rates are the responsibility of DocuSign allowing our user to not have to worry about upgrading their systems to handle data volume and data rates.

Test Evaluation

Test Cases and Actual Test Results

- Documents were tested by team members and the client to ensure proper fields and routing.
- Documents were further tested through volunteering students and staff. Additionally, surveys and data were taken to ensure effective feedback. This allowed feedback on aesthetics.

Errors Detected and Corrected

- There have been more limitations, necessarily rather than straightforward errors as DocuSign is a heavily tested and debugged piece of existing software. It works as needed with its own borders and limitations.
- **Users must fill out information in a separate window before accessing the document:** This issue has been resolved as users can now simply type their information into the form itself.
- **Undesirable Aesthetics:** The formatting has been replaced with something more desirable and accessible. Overall, the forms have a more professional and simple layout.
- **Administrator rather than the current signer decides who to route documents:** This is something built into the software that can't be changed. It is good in some ways and adds structure. However, it takes away some flexibility.

Summary of Testing Experience

- The testing experience has been rather successful as the required fields of the documents are able to be filled and the documents are being routed successfully. Testing began among team members. Later, testing began on students and staff members. Surveys have been collected from

students and staff on accessibility and ease of use. Of course there have been a few roadblocks and limitations posed with testing, however, it is nothing major. The routing process is determined by the creator or administrator of the document meaning that a signer can not choose who to route the document to. Overall, the documents work as needed and as many limitations are being addressed as possible. Surveys from students and staff indicated that most users found the signing and routing process to be simple and easily accessible. 87.5% of participants said that the overall process was very easy with the remaining participants considering it at least somewhat easy.

Final Product

The screenshot shows a web browser displaying the [MSCSIS Forms](https://csb.uncw.edu/mscis/csisforms.html) page. The URL is visible in the address bar. The page is organized into several sections:

- Left Sidebar:** A vertical sidebar with a dark background containing navigation links for "MSCSIS Home", "College of Arts & Sciences", "Cameron School of Business", "CSB Graduate Programs", "Program Overview", "Current Students" (with sub-links for Curriculum, Graduate Catalog, Calendar/Schedules, Forms, Handbook, Learning Goals, Graduate Assistants, and Student Research), "Future Students" (with sub-links for About Us, Contact Us, and Wilmington, NC), and "About Us".
- MSCSIS Forms Section:** The main content area is titled "MSCSIS Forms" and includes the following sections:
 - Graduate School Forms:** Contains a button for "Graduate School Standard Forms".
 - Advising Forms:** Contains buttons for "Advising Worksheet", "Basic Student Information", and "Prerequisite Waiver".
 - Capstone/Thesis Forms:** Contains a note about electronic routing and signature requirements, followed by buttons for "Capstone Guidelines", "Capstone Template", "Register For CSC/MIS 594 Capstone Project Credit Form", "Establish Project/Thesis Committee Form", "Approval for Scheduling Proposal Defense Form", "Capstone Project/Thesis Final Defense Approval Form", "Approval for Scheduling Final Defense Form", "Capstone Project/Thesis Proposal Defense Approval Form", "Capstone Assessment Form", and "599 Thesis Registration Form".

<https://csb.uncw.edu/mscis/csisforms.html>

Activity Log

MEETINGS

2/4 3:15-3:30 Group Meeting

- Divided individual parts of deliverable 1 between each member and assigned a partner to use for peer review
- Quickly brainstormed and discussed resources and strengths individually
- Basic game plan and set up of future meetings and availability

2/9 3:00-3:49 Client Meeting

- *WHAT CLIENT WANTS:*
 - Reformat graduate forms
 - Creation of 599 thesis form
 - Workflow management of all forms
 - Forms to be routable(email) and storables
- *FURTHER DISCUSSION:*
 - If coding becomes present, java may be the easiest path (python still up for discussion)
 - Do we want to create a logo?
 - What workflow platform?
 - Survey Kenny brought up
 - Satoshi
 - Technical questions, refer to Mr. Eddie Dunn (dunng@uncw.edu)

2/11 2:00-3:30pm Group Zoom Meeting (Deliverable discussion)

- Introduction of newest member
 - Will partner in editing and introduction of deliverable 1
- Learned what everyone can contribute
- Deciding to leave estimates blank until more knowledge is known
- Discussed:
 - Strengths
 - Risks
 - Members of the group with arts knowledge to create logo
 - Scheduling
 - Group checkpoint meetings, as of right now, will be each Thursday at 6pm on zoom.

2/18 2:30-3:30pm Group Checkpoint Meeting (Deliverable 2)

- Discussed deliverable 2 and how to possibly split tasks. We realized that this deliverable will likely involve more direct collaboration.
- Discussed and worked on use case information
 - Picked Stakeholders and Actors
 - Created a Use Case Diagram
- Need for a workflow management system

2/19 3:00-330pm Client Meeting

- Discussed further details of project requirements
- Talk to TAC regarding Docusign use
- Discussed using a workflow management system that already exists to manage documents
- Discussed revisions for Deliverable 1
 - Need Risk Table

2/22 1:00-1:45pm Client Meeting

- Contact TAC for Access to DocuSign
- Potential of Using Jotform to interact with DocuSign to create fillable documents
- No log-in or password protection needed
- Discussed possible constraints besides time.
- Client want the workflow to route from one person to the next then to himself
- Forms will need 3-5 faculty references, advisor, and program director signature (Dr. Vetter)
- Mobile Functionality

2/22 6:00-9:30pm Group Meeting (Deliverable 2)

- Met with the team to collaborate on remaining pieces of the deliverable.
- Created a data flow diagram and worked on other functional requirements.
- Discussed questions to ask Dr. Vetter regarding functional requirements and a system reference diagram.
- Discussed changes and missing features of Deliverable 1.
 - Need a description with our schedule.
 - Risk Table

3/9 2:00-3:00pm Group Meeting (Deliverable 3)

- Discussed and looked at how to use templates and powerforms in Docusign
- Clarified Task division for Deliverable 3
- Tested routing a document through Docusign
- Discussed aesthetic changes and formatting with the graduate thesis forms
- Logo Change ideas for forms

3/13 6:00-7:00pm Group Meeting (Deliverable 3 and DocuSign Discussion)

- Discussed how to route documents with one person filling the document and the next signing.
- Discussed formatting of documents.
- Ran tests on routing and signing documents.
- Formal Technical Review Ideas (Powerpoint?)
- Discussed if DocuSign can be integrated in PDFs
- Discussed System Objectives and Software Requirements

3/30 3:00-3:30pm Meeting with Client (Deliverable 4 and Implementation)

- Discussed formatting of documents and making them look more professional.
- Discussed testing phase and how to share with students for feedback.
- Formatting of webpage and creating an outline or vision

4/6 2:00-2:45pm Group Meeting (Deliverable 4 and Technical Implementation)

- Discussed testing and sending test document out along with a survey
- Discussed contacting the website editor in order to implement our forms
- Split work of deliverable 4 between peers
- Logo if time allows
- Ask Vetter whether he wants to be able to fill information before accessing document or not using that feature

4/11 8:30-10:30pm Group Meeting (Deliverable 4 Team)

- Discussed different testing strategies and the differentiations between each.
- Worked to organize the new deliverable.
- Discussed revisions to previous deliverable including estimates in deliverable 1.
- Worked to understand and explain test cases.

4/20 2:00-2:30pm Group Meeting (Presentation and Final Implementation Touches)

- Discussed an obstacle regarding storing of staff members for signatures in DocuSign. Is Vetter okay with removing the feature and manually inputting staff information?
- Formatting of Presentation (What does Vetter want?)
- Finishing estimates (what to include)
- Planning last meetings
- Splitting into final tasks (Sydney and Christina on DocuSign and Kenny, Jason, Paul, Logan, and Sebastian on presentation)

4/22 2:00-3:00pm Client Meeting (Implementation and Website)

- Tested our forms with Dr. Vetter and showed him how to use DocuSign Templates and Powerforms

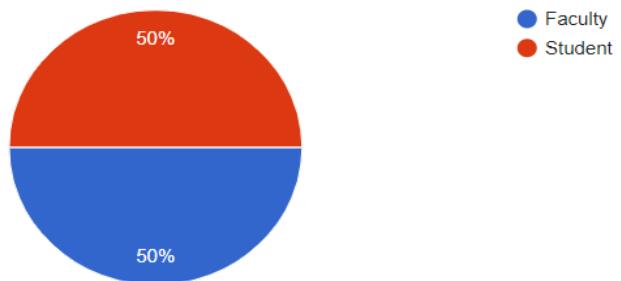
4/26 9:00-9:45pm Presentation Meeting

- Discussed final touches and formatting to presentation.
- Discussed division of slides for presenting and ordering.
- Mentioned final touches to deliverables and making edits.

Appendix A (SURVEY RESULTS)

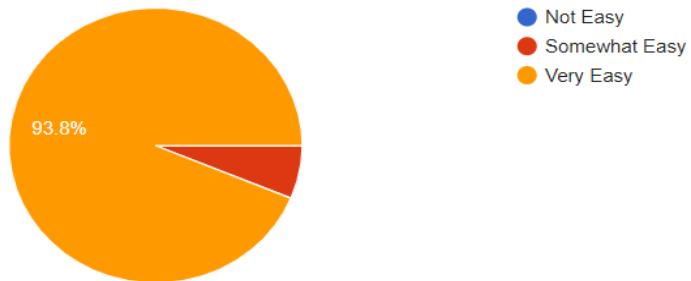
Are you a faculty or student?

16 responses



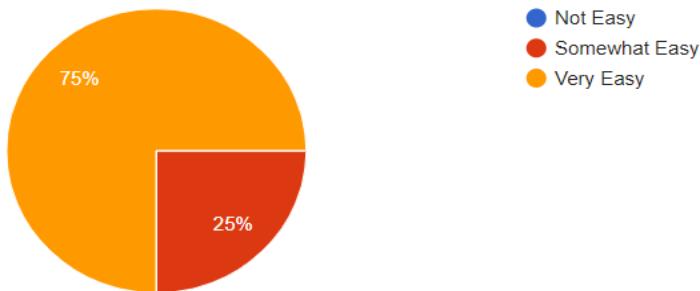
How easy was it to access the MS CSIS form?

16 responses



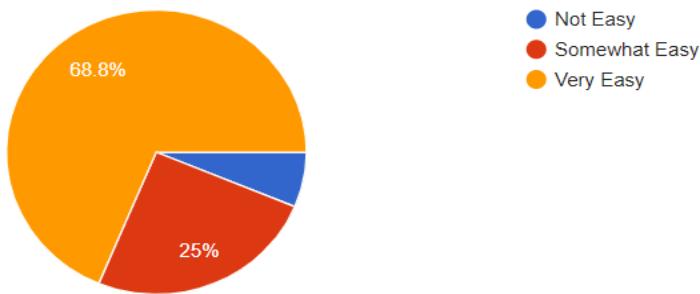
How easy was it to fill out the MS CSIS form electronically?

16 responses



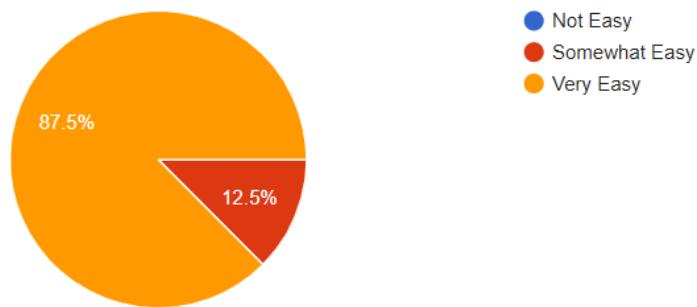
How easy was it to route to the next individual for reviewing and/or signing the MS CSIS form?

16 responses



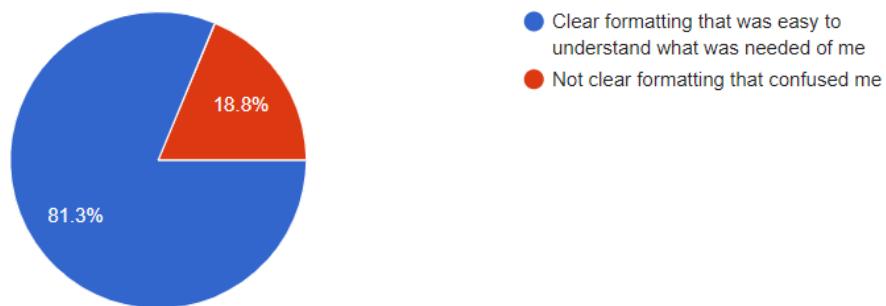
How easy was the overall process of using the MS CSIS form electronically?

16 responses



How do you feel about the format of the new MS CSIS Form?

16 responses



Appendix B (MS CSIS FORMS)

REGISTER FOR CSC/MIS 594 CAPSTONE PROJECT CREDIT FORM

Please return this form to the MS CSIS Graduate Coordinator no later than the first day of classes for the term for which you plan to register for capstone credit.

Student Name: _____

Student ID #: _____ Date: _____

Email Address: _____

Term: Spring Summer Fall Year: _____

Department Profile: _____ Credits: _____

Capstone Advisor: _____

Capstone Advisor Email: _____

Received by: MS CSIS Graduate Coordinator

Date

Establish Project/Thesis Committee

Student Name: _____

I am establishing a committee for my: Project Thesis

Please include the name and email of your committee members:

| | |
|-------------------------------------|---------------|
| <i>Committee Chair:</i> | <i>Email:</i> |
| <i>Committee Member 1:</i> | <i>Email:</i> |
| <i>Committee Member 2:</i> | <i>Email:</i> |
| <i>Optional Committee Member 3:</i> | <i>Email:</i> |

COMMITTEE MEMBERS:

Please sign below if you agree to serve on the Capstone Project/Thesis for the student named above.

Received by: Committee Chair

Date

Received by: Committee Member 1

Date

Received by: Committee Member 2

Date

Received by: Optional Member 3

Date

Capstone Project/Thesis Proposal Defense Approval Form

This form should be submitted to the MS CSIS Graduate Coordinator upon completion of the defense.

Student Name: _____

Student ID: _____ Email: _____

Select One: Project Thesis

Title: _____

Date: _____ Time: _____ Location: _____

Committee Members

| | |
|-----------|----------------------|
| Chair: | Member 1: |
| Member 2: | Member 3 (optional): |

Committee Approval:

I verify that I have read the proposal and participated in the oral proposal defense. I believe the proposed work conforms to the requirements in the MS CSIS graduate capstone project/thesis proposal guidelines.

Received by: Committee Chair

Date

Received by: Committee Member 1

Date

Received by: Committee Member 2

Date

Received by: Optional Member 3

Date

Capstone Project/Thesis Final Defense Approval Form

This form should be submitted to the MS CSIS Graduate Coordinator upon completion of the defense.

Student Name: _____

Student ID: _____ Email: _____

Select One: Project Thesis

Title: _____

Date: _____ Time: _____ Location: _____

Committee Members

| | |
|-----------|----------------------|
| Chair: | Member 1: |
| Member 2: | Member 3 (optional): |

Committee Approval:

I verify that I have read the project/thesis document and participated in the oral defense. I believe the work conforms to the requirements in the MS CSIS graduate capstone project/thesis guidelines.

Received by: Committee Chair

Date

Received by: Committee Member 1

Date

Received by: Committee Member 2

Date

Received by: Optional Member 3

Date

Approval for Scheduling Final Defense Form

I, _____, certify that I have requested that I be allowed to defend my project/thesis proposal according to the following schedule:

I am defending my: Project Thesis

Date: _____ Time: _____ Location: _____

Title of Proposal: _____

Student Signature

COMMITTEE MEMBERS:

I certify that I have agreed to participate in a defense of capstone project/thesis for the student named above on the date and time indicated, and that I have received a copy of the final project/thesis document (at least ten days in advance of the above date). I further certify that the draft received is sufficiently complete and that the above student be allowed to defend it as scheduled above.

Received by: Committee Chair

Date

Received by: Committee Member 1

Date

Received by: Committee Member 2

Date

Received by: Optional Member 3

Date

Received by: MS CSIS Graduate Coordinator

Date

Approval for Scheduling Proposal Defense Form

I, _____, certify that I have requested that I be allowed to defend my project/thesis proposal according to the following schedule:

I am defending my: Project Thesis

Date: _____ Time: _____ Location: _____

Title of Proposal: _____

Student Signature

COMMITTEE MEMBERS:

I certify that I have agreed to participate in a capstone project/thesis proposal defense for the student named above on the date and time indicated, and that I have received a copy of the project/thesis proposal (at least ten days in advance of the above date). I further certify that the draft received is sufficiently complete and that the above student be allowed to defend it as scheduled above.

Received by: Committee Chair

Date

Received by: Committee Member 1

Date

Received by: Committee Member 2

Date

Received by: Optional Member 3

Date

Received by: MS CSIS Graduate Coordinator

Date

599 THESIS REGISTRATION

Please return this form to the MS CSIS Graduate Coordinator no later than the first day of classes for the term for which you plan to register for 599 Thesis credit.

Student Name: _____

Student ID #: _____ Date: _____

Email Address: _____

Term: Fall Spring SummerI SummerII Year: _____

Thesis Course: _____ Credits: _____

Thesis Advisor: _____

Thesis Advisor Email: _____

Received by: MS CSIS Graduate Coordinator

Date

CSC 4+1 Application Information Form

This form should be filled out the second semester of Junior Year.

Student Name: _____ ID #: _____

| | | |
|----------------------|--------------------|-----------------------------|
| Current Overall GPA: | Current Major GPA: | Planned BS Graduation Date: |
|----------------------|--------------------|-----------------------------|

A. Basic Requirements

I certify that I have:

1. Completed a minimum of 70 credit hours in my undergraduate programs. Transfer students must have completed a minimum of two semesters at UNCW, a minimum of 24 credit hours.
2. Completed CSC 331 and CSC 360.
3. A minimum accumulated GPA of 3.0 and a minimum GPA of 3.2 on all 100-400 level Computer Science courses at UNCW.

Student Name (Print)

Student Signature

B. References

Please provide the names of two full-time Computer Science Professors who are familiar with your performance in 300-/400- level classes.

| | |
|-----------------|---------------------------------|
| Professor Name: | Course(s) taken with Professor: |
| Professor Name: | Course(s) taken with Professor: |

C. Transcript

Please attach a current Transcript (may be unofficial) to this form.

Received by: Department Chair

Date

Received by: Graduate Coordinator

Date

Graduate Degree Plan

This form should be filled out the first semester of senior year, typically during pre-registration.

Student Name: _____ ID #: _____

Please list the specific 500-level CSC courses (max. 12 credit hours) that will be double-counted for both the B.S. and the M.S. and the semesters in which the courses were taken:

Use the following format: CSC 532: Design and Analysis of Algorithm (Spring 20XX)

1. _____
2. _____
3. _____
4. _____

Intended Graduation Date for the M.S. Degree: _____ (MM YYYY)
(typically, one year after the B.S., in the spring)

This certifies that I intend to fulfill course requirements for the master's degree no later than a year after receiving the bachelor's degree.

Student Signature

Date

Received by: MC CSIS Graduate Coordinator

Date

Received by: MC CSIS Department Chair

Date

Capstone Assessment Form

Master of Science in Computer Science and Information Systems (MS CSIS)

Faculty Name: _____ Date: _____

Student Name: _____ Course #: _____

Rate this student in comparison to other students at UNCW using the following scale. The level of performance demonstrated by this student is:

1- Significantly Below Expected Levels

4- Above Expected Levels

2- Below Expected Levels

5- Significantly Above Expected Levels

3- At Expected Levels

With respect to:

- 1. Selecting and narrowing a topic worthy of further research investigation or project implementation.
- 2. Using computer literacy skills and information databases to find relevant research articles.
- 3. Independently reading papers in the computer science and information systems literature.
- 4. Applying concepts, principles, and theories in research or real practice.
- 5. Critically analyzing and evaluating the results of the project or thesis.
- 6. Assessing the conclusions and implications of the research or a project that solves a particular scientific or business problem.
- 7. Presenting the findings of the research or project implementation in a clear, coherent, and succinct way.
- 8. Evaluating the work of others objectively and fairly.
- 9. Critically analyze a business user's needs and develop a strategy for solving a business problem.
- 10. The combination of learning from both the computer science and information systems disciplines was beneficial to the student's future research or business opportunities.

Comment on the student's strengths and/or weaknesses:

Appendix C (Maintenance Documentation)

| | |
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| Downloading Templates | 44 |
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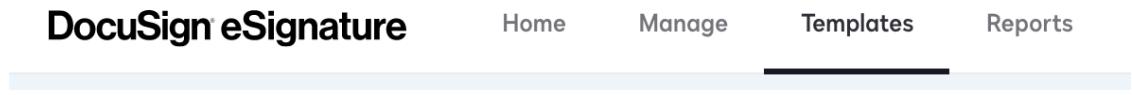
Downloading & Saving Templates

If you plan on using a DocuSign template that was stored / made on a different account the easiest way to transfer them is to download the .zip file and save the file to the new account.

When saving templates to a different account, all documents, fields, and routing information will stay the same, allowing you to immediately use the template upon uploading.

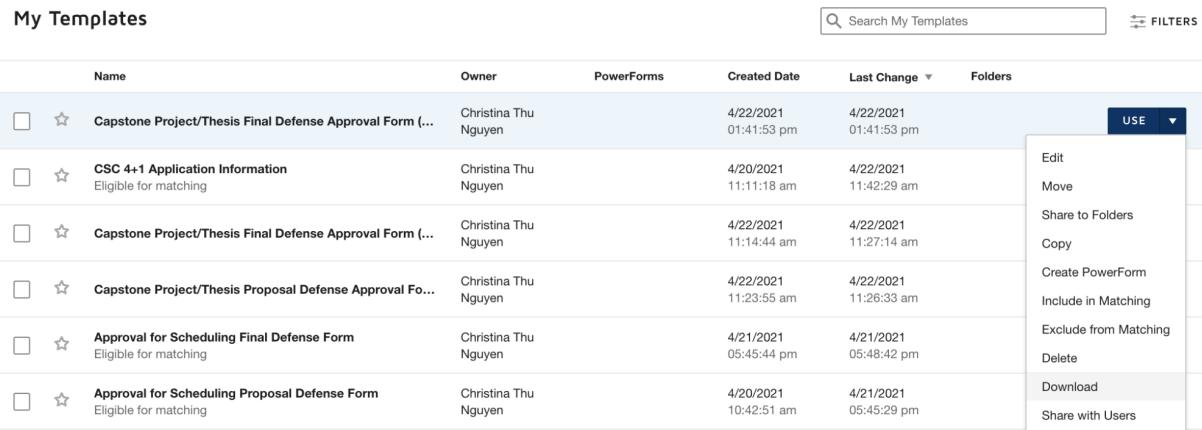
Downloading Templates

1. Open up the “Templates” tab at the top of the page.



DocuSign eSignature Home Manage **Templates** Reports

2. Click on the menu button beside “Use” of your desired template and select “Download”. A .zip file will be saved to your computer. (*Note: Do not unzip this file. Make sure that the file downloaded is not a .JSON as well.*)



My Templates

| Name | Owner | PowerForms | Created Date | Last Change | Folders |
|--|----------------------|------------|--------------------------|--------------------------|---------|
| Capstone Project/Thesis Final Defense Approval Form (...) | Christina Thu Nguyen | | 4/22/2021 01:41:53 pm | 4/22/2021 01:41:53 pm | USE ▾ |
| CSC 4+1 Application Information Eligible for matching | Christina Thu Nguyen | | 4/20/2021 11:11:18 am | 4/22/2021 11:42:29 am | |
| Capstone Project/Thesis Final Defense Approval Form (...) | Christina Thu Nguyen | | 4/22/2021 11:14:44 am | 4/22/2021 11:27:14 am | |
| Capstone Project/Thesis Proposal Defense Approval Fo... | Christina Thu Nguyen | | 4/22/2021 11:23:55 am | 4/22/2021 11:26:33 am | |
| Approval for Scheduling Final Defense Form Eligible for matching | Christina Thu Nguyen | | 4/21/2021 05:45:44 pm | 4/21/2021 05:48:42 pm | |
| Approval for Scheduling Proposal Defense Form Eligible for matching | Christina Thu Nguyen | | 4/20/2021 10:42:51 am | 4/21/2021 05:45:29 pm | |

Saving Templates

3. To save the template, log into the account that you plan on using the template on and open the “Templates” tab again.
4. Open up the “New” menu and select “Upload Template”. Locate the .zip file on your computer and save to DocuSign. You may now use the template

The screenshot shows the DocuSign eSignature interface. At the top, there's a navigation bar with tabs: Home, Manage, **Templates**, and Reports. Below this, on the left, is a sidebar with a 'NEW ▾' button at the top. Underneath are three options: 'Create Template', 'Upload Template' (which is highlighted in grey), and 'Create PowerForm'. Below the sidebar are three categories: 'All Templates', 'Favorites', and 'Deleted'. The main area is titled 'My Templates' and contains a table with three rows. Each row has a checkbox, a star icon, and a name. The names are 'Capstone Project/Thesis Final Defens', 'CSC 4+1 Application Information', and another 'Capstone Project/Thesis Final Defens' entry.

| My Templates | | |
|--------------------------|--|--|
| | Name | |
| <input type="checkbox"/> | Capstone Project/Thesis Final Defens | |
| <input type="checkbox"/> | CSC 4+1 Application Information Eligible for matching | |
| <input type="checkbox"/> | Capstone Project/Thesis Final Defens | |

Note: If you are planning on uploading multiple templates, it is best if you repeat Step 4 and upload each template individually. If you try to select multiple templates and upload them at once, an error will occur.

Using PowerForms

Powerforms allows you to create self-service web forms from existing DocuSign templates. Users are easily able to open, fill out, and submit forms easily and without the need of a DocuSign account. PowerForms can exist as a link and/or be embedded into a web page so that you can allow appropriate access to your forms.

Creating a PowerForm

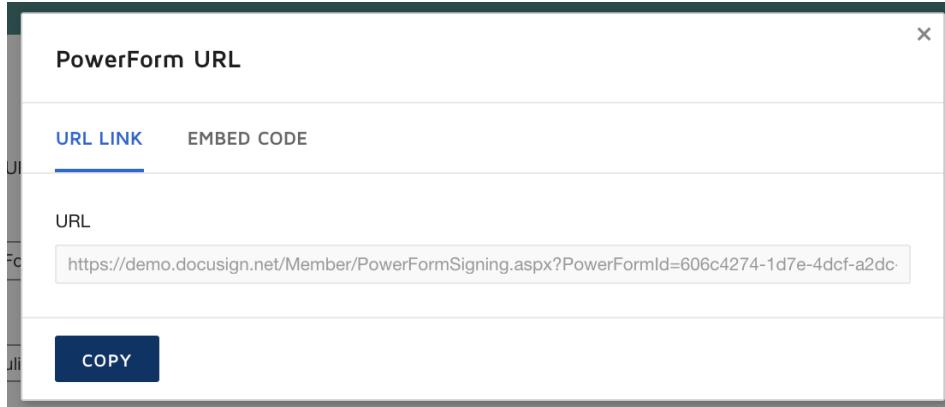
1. Open up the template that you plan on using to create your PowerForms with.
2. Under “More” select “Create PowerForm”

The screenshot shows a DocuSign template titled "Approval for Scheduling Proposal Defense Form". Below the title, there's a "Template ID" section with the text "Eligible for matching". A "MORE" dropdown menu is open, showing options like "Create PowerForm", "Copy", "Download", "History", "Include in Matching", "Exclude from Matching", and "Delete". The "Create PowerForm" option is highlighted with a blue border.

3. The following page will allow you to review and edit the PowerForm before its creation. Edit the title, email subject, and instructions as needed.
4. Press “Create” to create your PowerForms

The screenshot shows the "Create PowerForm" configuration page. It includes fields for "Name *" (set to "Approval for Scheduling Proposal Defense Form"), "Email Subject *" (set to "Please DocuSign: Proposal Defense Scheduling Application"), and "Instructions for First Recipient Only" (a text area containing the placeholder "Fill in the name and email for each signing role listed below. Signers will receive an email inviting them to sign this document."). At the bottom right is a large orange "CREATE" button.

5. Copy the link and place in your email / website / etc. so that users are able to access and fill out your form.



Edit an Existing PowerForm

1. Open up the template from which the PowerForm was created from.
2. Head to “Associated PowerForms” at the bottom of the page.
3. Under “Actions” you are able to copy the form URL, deactivate the form from taking any more submissions, edit the PowerForm (see Steps 3-4), change the sender, or delete the PowerForm.

| Associated PowerForms | |
|---|----------|
| Approval for Scheduling Proposal Defense Form | ● Active |

4. Save and close.

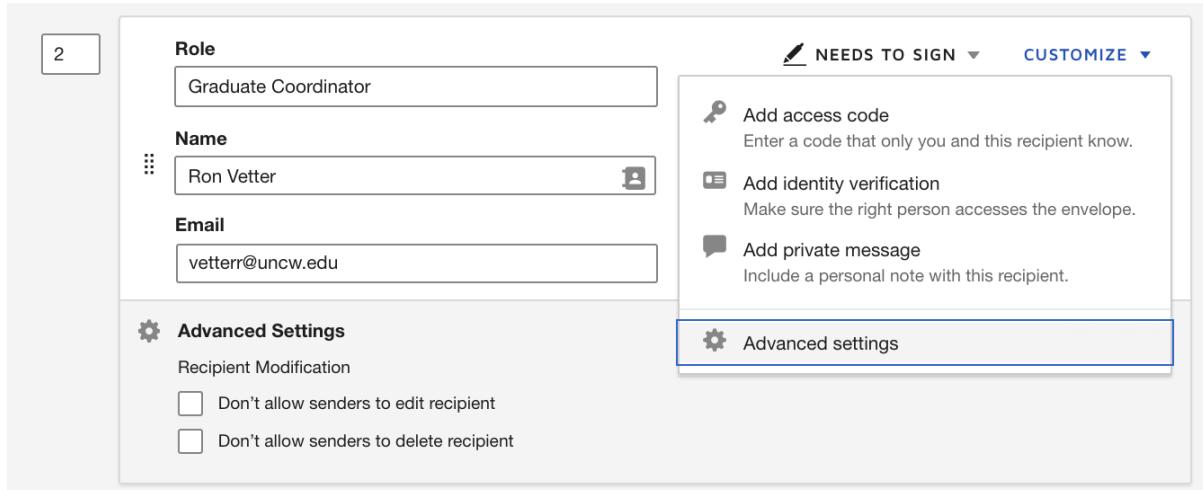
PowerForms Signer Information Page

Depending on the form and where it needs to get routed to, you may want to consider if you want to restrict the user from editing the document's recipients, or allow them access to edit or fill them in manually. The PowerForm Signer Information Page will show up before the user can access the form, allowing them to review the document's recipients.

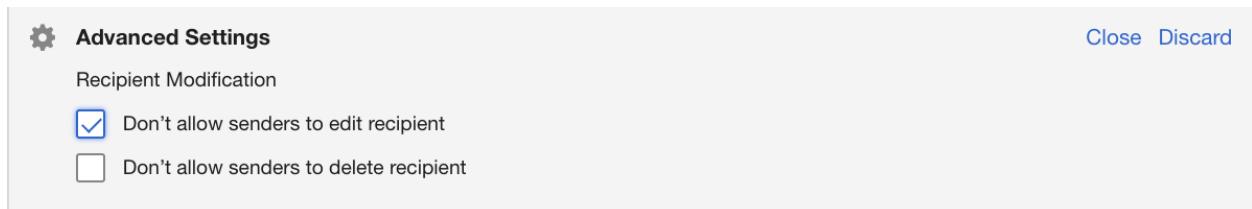
Restricting Recipient Information

If your document has routing recipients that are the same for each form submission and does not need to be changed or edited by the student, follow these steps below to restrict any edits to these recipients.

1. Open up your template and press the “EDIT” button.
2. Scroll down to the “Add Recipients” section of the page and on the recipient that you would like to restrict editing on, select “Customize” and “Advanced Settings”.



3. Here you can have the option to choose to prevent the sender from editing and/or deleting the recipient.



4. Save and close.

Bypassing the Signer Information Page

If your form does not need any input from the student on who to route the document to, you can bypass the signer info page and open up directly to the form. To do so follow these steps.

1. Open up your template and press the “EDIT” button.
2. Scroll to the “Add Recipients” section of the page.
3. Check “Set Signing Order”.
4. For the first recipient, set the role but do not enter any information for their name and email. Make sure that their required action is set to “Need To Sign”.

Add Recipients

As the sender, you automatically receive a copy of the completed envelope.

Set signing order

| | | | |
|---|---|---|-------------|
| 1 | Role <input type="text" value="Student"/> | <input checked="" type="checkbox"/> NEEDS TO SIGN ▾ | CUSTOMIZE ▾ |
| | Name <input type="text"/> | [copy] | |
| | Email <input type="text"/> | | |

5. Repeat step 3 from the “Restricting Recipient Information” above for the rest of the recipient. Make sure that “Don’t allow senders to edit recipient” is selected for the rest of the recipients.
6. Save and close.
7. Clicking on the powerforms link should now open up directly to the form instead of the Powerforms Signer Information Page.

Replacing Templates

If you need to make any minor updates to the template outside of DocuSign (editing the Word doc, pdf, etc.) but would like to keep all existing fields and routing information, use the Replace Document feature to do so easily. For example, if you were to find a typo in an existing template and would like to correct it.

1. Make the change in your Word document and save to your computer.
2. Open up the template that you would like to update. Open up the “More” menu and select “Copy” to create a new copy of the entire template.

The screenshot shows the DocuSign interface for the "CSC 4+1 Application Information Form". At the top, there are buttons for "USE", "EDIT", "MOVE", and "SHARE". A "MORE" button is open, displaying a dropdown menu with options: "Create PowerForm", "Copy" (which is highlighted with a blue border), "Download", "History", "Include in Matching", "Exclude from Matching", and "Delete". Below the "MORE" button, there is a section titled "Recipients" listing three entries: "Student", "Graduate Coordinator: Ron Vetter" (with email vetterr@uncw.edu), and "Department Chair: Curry Guinn" (with email guinnc@uncw.edu).

Note: This step is not necessary but recommended in the case of any mistakes. You may also want to rename the old/new template to differentiate between the two.

3. Open up the new template and select “Edit”.
4. Under “Documents” open up the sub menu and select “Replace”.

The screenshot shows the "Add Documents" interface. On the left, there is a preview of the "CSC 4+1 Application Information Form" document. On the right, there is a dashed box representing a document being uploaded. A context menu is open over the preview, with the "Replace" option highlighted. Other options in the menu include "Set as Supplement", "Download Document", "Rename Document", "Delete Document", and "View Document".

5. Select “Next” at the bottom of the page and make any adjustments to the fields as necessary.
6. Save and close.

Conditional Routing

Conditional routing allows you to route your document based on how specific fields are filled by the student. The number of routing groups should be equal to the total number of possible signatures needed.

Adding a New Conditional Recipient

1. Open the template you would like to use conditional routing with. Select “Edit”.
2. Under “Add Recipients”, select “Add Conditional Recipient”.
3. Fill out the “Group Name” and select the appropriate action needed.
4. Select “Add Another Recipient”. Add as many possible recipients as needed and fill out their information.

The screenshot shows a modal dialog titled "Add Conditional Routing Group". Inside the dialog, there is a descriptive message: "Add recipients as conditional group to route this envelope based on the rules that can be configured during tagging". Below this, there are two input fields: "Group Name *" containing "E.g. HR Department" and "Action" set to "Needs to Sign". A section labeled "Recipient 1" contains three input fields: "Role *", "Name *", and "Email *". Each field has a placeholder text ("Role", "Name", "Email") and a small icon to its right. Below the recipient fields is a button labeled "+ ADD ANOTHER RECIPIENT". At the bottom of the dialog are two buttons: "SAVE" and "CANCEL".

Editing an Existing Conditional Recipient

1. Open the template you would like to use conditional routing with. Select “Edit”.
2. Go to the recipient group you would like to edit. Select “Customize”, then “Edit Conditional Recipients”

The screenshot shows a Docusign interface for editing conditional recipients. On the left, there's a sidebar with a '2' icon. In the center, a table lists six committee chairs with their names and email addresses. To the right, a vertical menu titled 'NEEDS TO SIGN ▾ CUSTOMIZE ▾' is open, showing options like 'Edit conditional recipients' (which is highlighted with a blue border), 'Add access code', 'Add identity verification', 'Add private message', and 'Advanced settings'. The 'Edit conditional recipients' option has a sub-description 'Edit the conditional recipient group'.

| Role | |
|--|--|
| Committee Chair | Committee Chair |
| Committee Chair: Brittany Morago moragob@uncw.edu | Committee Chair: C Sibona sibonac@uncw.edu |
| Committee Chair: Curry Guinn guinnc@uncw.edu | Committee Chair: D Simmonds simmondsd@uncw.edu |
| Committee Chair: Elham Ebrahimi ebrahimie@uncw.edu | Committee Chair: Gulustan Dogan |
| | Committee Chair: Jeffery Cummings |

3. Make any changes/addtions/deletions as needed.
4. Save and close.

Adding / Editing Rules for Conditional Routing

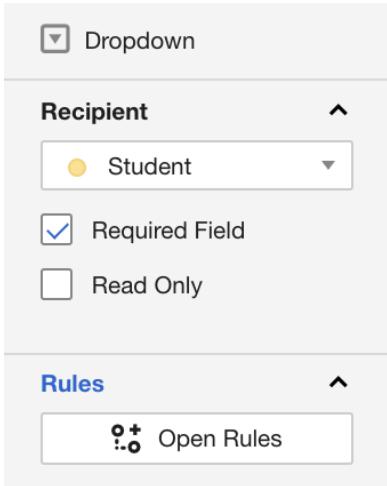
Docusign rules uses boolean logic to determine where to route the document if the right conditions are met. For these next coming examples I will be working with a dropdown list of MSCSIS staff members to determine how the document will be routed. If you are editing rules to reflect changes in faculty, make sure to add/delete their name as an option for each dropdown list.

1. Open and Edit the template.
2. Select the field that you would like to use to determine the conditional recipient.

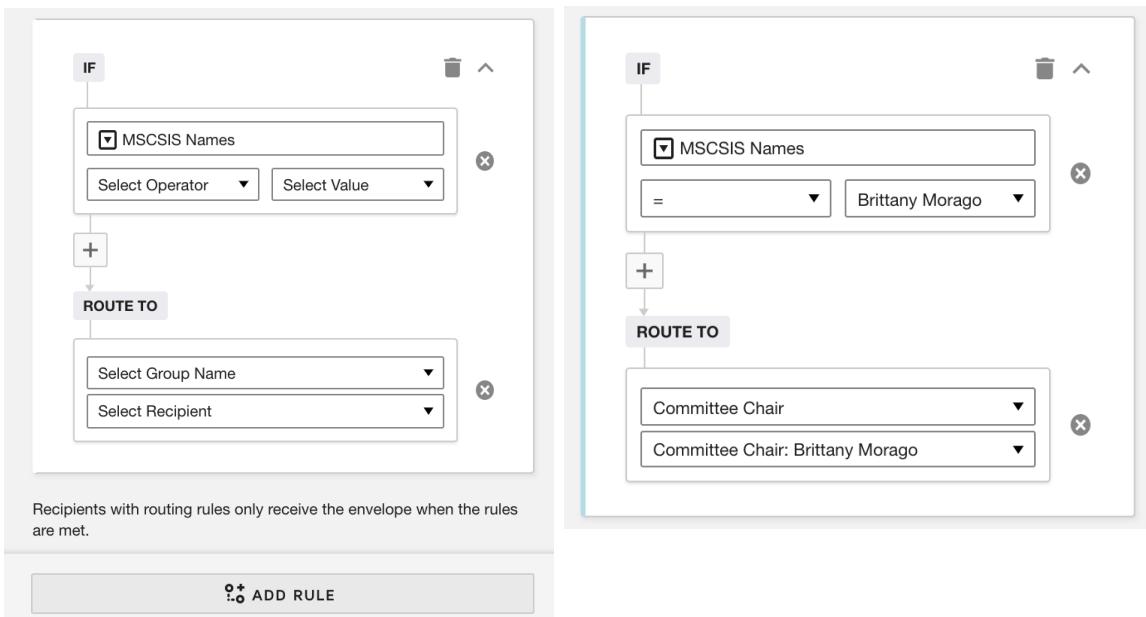
Committee Members

| | |
|--------------------------------|---|
| <i>Chair:</i> Select | <i>Member 1:</i> Select |
| <i>Member 2:</i> Select | <i>Member 3 (optional):</i> Select |

- In the side menu that pops up, select the “Open rules” option.



- Select “Add Rules”. A new rule will be added. Fill out the options appropriately.



Note: “MSCSIS Names” is the name of the field that I have selected. (Previously saved and named under Custom Fields. This field will vary.)

- Repeat step 4 above as many times as necessary. For each field you will need to add a **rule for each possible recipient**, meaning that if the document could be possible routed to 5 different people based on that field, then you will need to add 5 separate rules.
- Repeat steps 4-5 as many times as necessary for each field that will be determining conditional routing.