

# Integral Solutions

*University of Maine*



COS 497 | Capstone II

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## User Guide

### Digital Program of Study Approval System (POSAS)

Client: Doctor Harlan Onsrud

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*Version 1*

## User Guide

(Adapted from John Brinkworth and Bill Waghorn)

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## **0. Preface**

### **0.1 Purpose of this document**

This document serves as a user guide or manual for the future users of the *Digital Program of Study Approval System*, a Computer Science Capstone project initially developed by Integral Solutions at the University of Maine for our client Harlan Onsrud. This document will be used by future users of the *Digital Program of Study Approval System* and its purpose is to give the reader or user a full understanding of our system in the form of a guide, giving full insight to our systems uses and operations from the users perspective.

### **0.2 Use of this document**

This document will go over in detail the fundamental aspects of our system from a user's perspective, such as system overview, instructions to operate and navigate throughout our system, error message and recovery procedures as well as conventions used in our system. This document is intended to give any user that reads this document the full understanding of our system, the *Digital Program of Study Approval System* and how to use our system.

### **0.3 Function of User Guide**

The function of this User Guide document is to serve as a guide or manual for the future and present users of the *Digital Program of Study Approval System*. This User Guide document is intended to be used by any user trying to use and understand our system. By the end of reading this User Guide document, any user will be able to use our system as well as understand how it works.

### **0.4 Production of User Guide**

This document, User Guide document version 1.0, serves as a User Guide template for future versions of this document, and we encourage future developers to utilize this document in order to standardize the production of future User Guide versions. This User Guide was produced by the initial developers of the *Digital Program of Study Approval System*, Integral Solutions.

Integral Solutions is a Computer Science capstone group at the University of Maine, who took on the task of digitizing the Program of Study Approval System currently in place for the Graduate School here at the University of Maine at the request of Integral Solutions client, Harlan Onsrud. The authors and editors for this User Guide are stated on the cover page of this document, those authors being Mackenzie Creamer, Vincent King, Peter Riehl, Liam Blair, and Aaron Wilde.

## **0.5 Forms of User Guide**

For standardization purposes of future versions of this User Guide document, we encourage the use of the User Guide Template as adapted from John Brinkworth and Bill Waghorn. This User Guide document, User Guide version 1.0, utilized the User Guide Template as adapted from John Brinkworth and Bill Waghorn. The continued use of John Brinkworth and Bill Waghorn's User Guide Template will provide organization and standardization of future versions of this User Guide document. We also encourage the use of Times New Roman, 12 point font, as well as 1.15 line spacing for consistency as well as readability.

## **0.6 Related documents**

- “UMaine Graduate Student Program of Study Creation and Approval System” Proposal
  - *Author: Harlan Onsrud*
  - *Date: September 2021*
- “UMaine Graduate Student Program of Study Creation and Approval System” SRS
  - *Author: Integral Solutions*
  - *Date: October 2021*
- “UMaine Graduate Student Program of Study Creation and Approval System” SDD
  - *Author: Integral Solutions*
  - *Date: November 2021*
- “UMaine Graduate Student Program of Study Creation and Approval System” UIDD
  - *Author: Integral Solutions*
  - *Date: November 28, 2021*
- “UMaine Graduate Student Program of Study Creation and Approval System” CDRD
  - *Author: Integral Solutions*
  - *Date: December 2021*
- “UMaine Graduate Student Program of Study Creation and Approval System” CIR
  - *Author: Integral Solutions*
  - *Date: March 2022*
- “UMaine Graduate Student Program of Study Creation and Approval System” AM
  - *Author: Integral Solutions*
  - *Date: April 2022*

## **Introduction**

This User Guide documents intended readership is for present and future users of the *Digital Program of Study Approval System*, initially developed by Integral Solutions. This document serves as a user guide or users manual for the current and future users of the *Digital Program of Study Approval System*, developed at the University of Maine by the Computer Science capstone group Integral Solutions as requested by the client for this project, Harlan Onsrud. The *Digital Program of Study Approval System* serves as a transition from the University of Maine's physical storage of Program of Study (POS) documents, to the digital storage of these documents. This User Guide document will give the reader a full understanding of our systems uses and functionality from the users perspective. This document will go over topics necessary to using our system such as overview of the system, instructions on how to use our system, error messages and recovery procedures, references for each operation used in our system, as well as conventions used throughout our system.

## **Applicability Statement**

This User Guide document applies to the software release version 1.0 of the *Digital Program of Study Approval System*.

## **Purpose**

This document serves as a user guide for the future and present users of the *Digital Program of Study Approval System*. The *Digital Program of Study Approval System* serves as a transition from the University of Maine's physical storage of Program of Study (POS) documents, to the digital storage of these documents. This document's purpose is to give the reader a full understanding of our system in the form of a guide, giving full insight to our systems uses and operations. This document will inform the user or reader of the fundamental aspects of our system. These aspects include system overview, instructions to operate and navigate throughout our system, error message and recovery procedures, references for each operation used in our system, as well as the conventions used in our system. By the end of reading this User Guide document, any user will be able to use our system and understand how it works, as well as understand the purpose for this system.

## **How to Use this Document**

This User Guide document is to be used as a users manual for the *Digital Program of Study Approval System*. This document goes over the essential components of our system in order for the users to gain a full understanding of the system and how to use it. This document informs the reader of the system overview, instructions to operate the system, error message and recovery procedures, as well as conventions used throughout the system. A table of contents is provided on page 2, for the purpose of quickly navigating to any section of this user guide that a user may need in order to use the system. We encourage you to utilize the table of contents to quickly find the information you may be looking for.

## **Related Documents**

- “UMaine Graduate Student Program of Study Creation and Approval System” Proposal
  - *Author: Harlan Onsrud*
  - *Date: September 2021*
- “UMaine Graduate Student Program of Study Creation and Approval System” SRS
  - *Author: Integral Solutions*
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  - *Date: April 2022*

## **Conventions**

### Acronyms:

- POSAS → Program of Study Approval System
- POS → Program of Study
- DPOS → Draft Program of Study
- UMS → University of Maine System
- SRS → System Requirements Specification
- SDD → System Design Document
- UIDD → User Interface Design Document
- CDRD → Critical Design Review Document
- CIR → Code Inspection Report
- UG → User Guide
- AM → Administrator Manual

### Document structure:

- Titles of major sections are 16pt size font as well as bolded.
- Titles of subsections are 13pt size font as well as bolded.

**Problem Reporting Instructions**

If a problem has occurred and is not addressed in this User Guide document, please contact the site administrators through email for assistance.

## **Overview**

The following section describes the functionality of the system, explaining the processes involved with each, as well as how each feature is invoked by the user.

### **Creating an Account**

Account creation is accessible from the application's log-in page. The button, labeled 'Need to create an account?' will take the user to the account creation page if clicked. There are several text input fields on the account creation screen, such as one for an email and a password. Once all text input fields have been filled, clicking the 'Create Account' button will create the user's account with those details, and add it to the system's database; inputting these details into the log-in page will allow the user to access other parts of the application.

### **Verify Email**

When creating an account, the system will check to see if the provided email address is within the University of Maine System email domain. If it is within the system, it will send an automated message to said email address in order to verify it. If it is not within the system, the system will display a message on the log-in page notifying the user of the error.

### **Logging In**

The log-in system relies on the email and password text fields, as well as the sign in button, to drive its functionality. Users are able to input text for both fields, as well as click the button to sign in. If incorrect information is put into the fields, the system will display a message notifying the user of the error. If a user's log-in information is put in correctly, they will be taken to the application's main page.

### **Resend Reminder to View DPOS**

Upon successful completion of a DPOS form, the system shall automatically notify the members of the user's advisory committee that the form is ready for review. A button will be provided to the user that, once pressed, will resend this notification. This button is intended for use in the case that the user's advisors do not review the document in a timely manner.

### **Create DPOS**

The user can create a new POS form by pressing the 'Create New POS' button at the bottom of the home page. Upon beginning the process of DPOS creation, the user will be presented with three options for forms, each present as boxes for the user to check; a doctoral candidate form, a master's and C.A.S or Ed.S candidate form, and a graduate certificate form. Each option will lead to a page that contains fields for the information that would be present on the physical version of the form. These fields include checkboxes and text fields. Once these fields are filled and the user progresses to the next page, they will then input information about their course



work, such as the course's number, title, credits, and the grade the user got in it, as well as when they took it. Once these fields are filled, and the user progresses to the next page, the user is presented with a text field in which additional comments may be added. After the user presses the 'Save and Finish' button, the system will create an entry in the user's list of programs of study, as well as to the system's database.

## **Modify DPOS**

The user may modify any POS they have created on the site by finding the entry of the form they'd like to change on the system's main page, and clicking its respective 'edit' button. From here, the user can go through the aforementioned pages described in the 'Create DPOS' section above. Once they have made the changes they see fit, the user may save their modifications by pressing the 'Save and Finish' button at the bottom of the comment page.

## **Save Changes Manually**

At any point in the DPOS creation process, the user may save their progress by pressing the 'Save' button at the bottom of the pages described in the 'Create DPOS' section above. By doing this, the user may exit the program, and revisit it from the main page to continue creating their DPOS form by finding its entry, and pressing its 'Edit' button.

## **Submit DPOS for Approval**

At the final page of the DPOS creation process, the user may submit their DPOS for approval by their advisor by pressing the 'Save and Submit' button at the bottom of the page.

## **View Committee Student DPOS**

For accounts verified to be owned by advisors, committee members, or graduate coordinators, the main page of the system will display DPOS forms sent to them by their students in place of the student user's DPOS list. From here, they can press the 'Review' button located next to a DPOS entry of their choice, and view both the form, as well as the comment section featured below it.

## **Comment on Committee Student DPOS**

In the comment section featured in a completed DPOS form, advisors, committee members, and graduate coordinators are able to type a comment into the provided text field, and post it on the DPOS form. Upon doing this, the comment is saved and stored within the database, and is made visible to the form's owner.

## **Provide Approval Status on Student DPOS**

When viewing a DPOS form, advisors, committee members, and graduate coordinators will be able to provide approval status to said form by clicking the 'Approve Form' or 'Reject Form'

buttons located in the page's middle section, below the form's information, and above the comment section.

### **Make Changes to Student DPOS**

Advisors, committee members, and graduate coordinators may edit a DPOS form available to them by pressing the 'Edit' button located next to the given DPOS entry on the main page. From there, they can begin the process as described in the 'Create DPOS Form' section above.

### **Registration of UMS Faculty Members**

The site's administrator is able to create faculty accounts by logging into their account from the site's administration page, and clicking the 'Create Account' button. From there, they may create an account in a similar fashion to the process described above in the 'Creating an Account' section. The administrator will need to add the 'staff' tag to the account, so that the account has access to staff functionality.

## Instructions

Within the context of this section, you, as a user, will be able to read what operations you have access to and information on both the function itself and how to perform said functions. The order in which these operations appear are the order in which you will need to utilize them. Different roles will have access to different operations, with operations being primarily organized by what user groups have access to what operations. Most operations are adapted from the UML model from our SDD. All operations not conceived from the SDD have been adapted from a user guide template provided to us by the Capstone professor, Terry Yoo. Any and all difficulties encountered not listed here can be handled via an email to the graduate school, the email of which is included on the front page of the POSAS website.

### All User Operations

- Create account
  - Description:

A basic operation designed to allow a general user to create their own account within POSAS. Requires address information, as well as a UMaine-based email account.
  - Cautions and Warnings:

The system will very clearly display error messages upon an unsuccessful attempt at creating an account when on the account registration page. Additionally, error messages will dictate how information in the fields should be entered.
  - Procedures:
    - i. Open the website and click on “Need to create an account?”
    - ii. Enter all information, ensuring that your passwords match one another.
    - iii. Hit the “Create Account” button.
    - iv. If there are no issues, you should receive an email to verify your account.
  - Probable Errors (and their causes):
    - i. Unsuccessful account creation; likely caused by not entering information correctly and an error message popping up
    - ii. No verification email but taken back to the home page; potentially caused by the system having a momentary “hiccup”. Please wait up to five minutes and if the problem persists, please contact the graduate school.
- Verify Email
  - Description:

Straightforward operation where you receive an email from the previous operation

and verify your email by clicking on the provided link.

- Cautions and Warnings:

No relevant warnings or cautions are to be provided, verification is external to the system. CAUTIONARY TALE THOUGH, NEVER ENTER LOGIN INFORMATION ON A PAGE FROM A LINK YOU RECEIVE IN AN EMAIL. This is how phishing attacks happen.

- Procedures:

- i. Log into your UMaine email account.
- ii. Locate the email from POSAS with the subject header “[POSAS] Account Email Verification”
- iii. Click on the link provided within the email.
- iv. Verify that you received a confirmation of a verified email address.
- v. Close the webpage and reopen POSAS in a new tab.

- Probable Errors (and their causes):

- i. External service, nothing to mention.

- Log In

- Description:

Operation for accessing the POSAS website. Only usable after first creating, and verifying, an account using your UMaine email address.

- Cautions and Warnings:

Never enter your login credentials after arriving at the site from an untrusted external link. Google, for example, is a trusted external link. A random email containing a link to the site is an untrusted external link.

- Procedures:

- i. Enter your login credentials within their respective fields.
- ii. Hit the enter key on your keyboard, or click on “Sign In”
- iii. Look at your home screen with your (potential) POS’s.

- Probable Errors (and their causes):

- i. Unsuccessful login attempt; you likely entered your login information incorrectly. If it still persists, email the graduate school.

- Resend Reminder to Review DPOS

- Description:  
A general operation for all system users. This operation is attached to DPOS that are awaiting approval statuses from the advisory committee. Additionally, this feature doubles as a way for the advisory committee to get a response back from the student quicker.
- Cautions and Warnings:  
Do not spam this button. Repeated abuse of the system will ultimately lead to formal complaints lodged against you by the advisory committee and/or graduate coordinator, at which point you may be banned or suspended from the site.
- Procedures:
  - i. After having created a DPOS and sending it in for submission or after having made revisions to the DPOS, the option should not be grayed out.
  - ii. Scroll down to the DPOS you wish to get a review on more quickly.
  - iii. Click the “Send Reminders” button for the DPOS you wish to remind individuals of.
  - iv. You should have received a confirmation email showing these emails were sent out.
- Probable Errors (and their causes):
  - i. The “Resend Reminder” button is currently grayed out; this is normal if the POS has already been approved or not yet sent in. If neither of these conditions are met, it is likely that there is some other underlying issue and an email should be sent to the site administrator.

## Student User Operations

- Create DPOS
  - Description:  
The formal process for which a student can create a DPOS that represents their ability to inevitably receive their degree after having completed their coursework. (Note, approval of your DPOS and completion of your coursework does not guarantee anything. At this moment in time this facilitates actions between us and the grad school, but is not binding).
  - Cautions and Warnings:  
You are unlikely to complete this process in one sitting. Do not panic if you don’t or feel like you must complete it in one sitting. The system saves your DPOS so that you can modify it later, discussed in the “Modify DPOS” section.

- Procedures:
  - i. While logged in and on the account “home” page, click “Create New POS”.
  - ii. Select one of the three options you have access to, depending on the type of POS you would like to make. These options, generally, are a Ph.D., a Master’s, and a graduate certificate.
  - iii. Enter the relevant information that the page needs, required fields are indicated with an asterisk. If at any point you need to manually save the information on the page, please click the “Save” button at the bottom of the page.
  - iv. Repeat this process for all of the pages. Leave a comment if you would like to.
- Probable Errors (and their causes):
  - i. I’m getting errors for entering information; review what the errors you are getting are, and adjust the fields you are entering (or are forgetting to enter).
  - ii. I can’t create a new DPOS; you are trying to create a POS for a DPOS you have that is in the draft stage. You can recreate the DPOS once the current one you have has been approved.
  - iii. I made a DPOS for something that I didn’t mean to; contact the site administrator to remove this for you. We don’t give you the option to delete your own POS to protect from an accidental deletion of the document.
- Modify DPOS
  - Description:
 

Once a DPOS has been created, modifications need to be able to be made to it. This operation is mostly a repeat of the “Create DPOS” operation’s 2nd-3rd steps. The only difference is that some of the information will be auto populated with your prior, saved information.
  - Cautions and Warnings:
 

These cautions and warnings are the same as that of the “Create DPOS” section. You do not need to create a new POS if you did not finish your POS in the previous sitting. If you attempt to modify an approved POS, you will create a new DPOS that will allow you to repeat the process of creating a POS in the event you want to make changes to an old POS.
  - Procedures:

- i. While logged in and on your home page, click “Edit” for the desired POS you wish to modify.
  - ii. Repeat steps 2 and 3 from the “Create DPOS” operation.
- Probable Errors (and their causes):
  - i. Information I previously entered is no longer present within the page; your previously saved DPOS did not actually save properly. If the problem persists, please contact the site administrator.
- Submit DPOS for Approval
  - Description:
 

Once you feel confident with your DPOS and/or you’ve finished discussing it with your major advisor, you are able to submit your DPOS. It will go through your committee who will provide feedback and an approval status on your work.
  - Cautions and Warnings:
 

You only need approval statuses from the Graduate Program Coordinator and your Major advisor. That being said, if you choose to neglect the feedback from your other committee members, they will be unhappy. Additionally, once you’ve submitted for approval you cannot make new changes without resetting the process. Be mindful of this before you submit.
  - Procedures:
    - i. After having gone through the DPOS, you will be able to leave a comment as you see fit.
    - ii. Upon deciding that you are ready to submit, select the “Save and Submit” button. You will receive an email confirmation that the system has successfully received your submission.
  - Probable Errors (and their causes):
    - i. I did not receive a confirmation email; you may not have been connected to the internet when you hit submit. Double check the status on your home page. If it is out of line with expectations listed above, please contact the site administrator.
    - ii. The system will not let me submit the DPOS; make sure that you have completed all the required fields of each different section.

#### Committee Member Operations

- View Committee Student DPOS

- Description:  
You view a given student's DPOS that you are a member of their committee for. It's pretty straightforward and you view their DPOS in the same way that they originally created it.
- Cautions and Warnings:  
You cannot make changes while in this mode, however, you are able to leave a comment at the end as described in the "Comment on Committee Student DPOS" operation.
- Procedures:
  - i. From your home page while logged in, click on the "Review" button.
  - ii. This will take you to the first page of a DPOS that a student has submitted. Use the navigation buttons at the bottom of the page in order to look it over, and take note of any issues you have with it.
  - iii. Continue until you wish to either exit the form or leave a comment. If you wish to leave the form, use the home button at the top left. If you wish to leave a comment, use the final page and the "Comment on Committee Student DPOS" operation.
- Probable Errors (and their causes):
  - i. I am unable to view a student's DPOS; make sure that the DPOS you are trying to view is in a ready-to-review state, and that the student you are trying to view is one whose committee you are a part of.
- Comment/Provide Approval Status on Committee Student DPOS
  - Description:  
Leave a comment on a student's DPOS of which you are a member of their committee. This is so you can give them feedback on the way that they can be the most successful on their path forward. Additionally, when you submit a comment (or lack thereof), you are able to provide your approval status at the same time. If you approve of the DPOS, click "Approve". If you don't, click "Reject".
  - Cautions and Warnings:  
Phrase your statements in positive, constructive ways. It is not helpful to leave comments for students that are exclusively negative or just say "no". Find ways to let them explore their creativity.
  - Procedures:



- i. On the final page of reviewing a DPOS (see “View committee student DPOS”), enter your comment.
  - ii. Click the “Submit and Approve” or “Submit and Reject” button depending on your overall opinion of whether or not you believe the POS to be ready to go.
- Probable Errors (and their causes):
  - i. My comment didn’t save; please try resending your comment, there could have been a hiccup with the network connection. If the problem persists, contact the site administrator.

#### Major Advisor/Graduate Coordinator Operations (Includes Committee Member Operations)

- Make changes to Student DPOS
  - Description:  
Allows you to modify a DPOS in the same fashion that a student is able to modify their DPOS.
  - Cautions and Warnings:  
In the same way a student modifying their DPOS resets the approval status of a submitted DPOS, so too does modifying the DPOS of the student for them. Talk about this with your student first and only do this if absolutely necessary.
  - Procedures:
    - i. See “Modify DPOS” under the student operations section to follow the path of how to make changes to a student’s DPOS.
  - Probable Errors (and their causes):
    - i. See “Modify DPOS” under the student operations section to understand the similar errors you may experience.

#### Administrative Staff

- Registration of UMS Faculty Members
  - Description:  
For the registration of UMS Faculty Members, they need privileges to serve as functioning members of an advisory committee, or as a Graduate Program Coordinator/Major Advisor. They cannot get these permissions from registration alone, so a site administrator must step in.
  - Cautions and Warnings:  
There needs to be a proper and rigorous system in place for giving a staff member

access. Ideally, this should only be a one-time thing per faculty member, so as long as the time to do this isn't overly cumbersome, this will ensure the safety of the system and student information as a whole.

- Procedures:
  - i. Go to the site's administration page at <sitename>/admin.
  - ii. From there, log in to your account, assuming you are a site administrator.
  - iii. There is a "Create Account" functionality, make sure that the account you are creating has the correct email address. Use a safe, placeholder password for the staff member.
  - iv. Add the "Staff" tag to the staff member's profile.
  - v. Advise the staff member to immediately change their password upon handing them their account.
- Probable Errors (and their causes):
  - i. This is native Django functionality, therefore errors should not be experienced on your end. If there are any issues with the account login, feel free to reset the account and make changes as necessary (to the password or anything else to make access to the account possible).

## Reference Section

Within this section the reader will be informed about all of the system capabilities. Each of the comprehensive information sections will detail everything that the user must know in order to operate the system. The capabilities that will be described will include functional descriptions, cautions and warnings, formal descriptions, examples, possible error messages, and cross references to similar operations.

### All User Based Capabilities

- System Create account
  - Description:  
A basic operation designed to allow a general user to create their own account within POSAS. Requires address information, as well as a UMaine-based email account.
  - Cautions and Warnings:  
The system will very clearly display error messages upon an unsuccessful attempt at creating an account when on the account registration page. Additionally, error messages will dictate how information in the fields should be entered.
  - Procedures:
    - i. Open the website and click on “Need to create an account?”
    - ii. System collects all information from the user, ensuring that the inputted passwords match one another.
    - iii. User Hit the “Create Account” button.
    - iv. System creates user account in database
    - v. System sends verification and waits for users response
  - Probable Errors (and their causes):
    - i. Unsuccessful account creation; likely caused by not entering information correctly and an error message popping up
    - ii. No verification email but taken back to the home page; potentially caused by the system having a momentary “hiccup”. Please wait up to five minutes and if the problem persists, please contact the graduate school.
- System Verifies User Inputted Email
  - Description:  
Straightforward operation where the system sends an email to the email listed in the from the previous operation and verifies the email by having the user click on the provided link.

- Cautions and Warnings:  
No relevant warnings or cautions are to be provided, verification is external to the system.
- Procedures:
  - i. System waits for user to click on link provided in email
  - ii. Once response from link is received, the system collects this response
  - iii. System deems account to be active
  - iv. System allows user account to be logged into
- Probable Errors (and their causes):
  - i. External service, nothing to mention.
- System Logs User In
  - Description:  
Operation for accessing the POSAS website. Only usable after the system creates an account, and verifies it using the process listed above.
  - Cautions and Warnings:  
None to mention
  - Procedures:
    - i. System waits for user to enter in login credentials
    - ii. System takes in the user and passes and checks with the backend database to ensure the email is a valid one. Meaning that the email exists in the system
    - iii. The system then takes the email and check the passcode entered by the user with the passcode stored in the database associated with the email
    - iv. If the credentials are correct the system directs the user to their homepage
  - Probable Errors (and their causes):
    - i. Unsuccessful login attempt; user likely entered the login information incorrectly. If it still persists, and the user has created an account, email the graduate school.
- System Generates Reminder for User to Review DPOS
  - Description:  
A general operation for all system users. This operation is attached to DPOS that are awaiting approval statuses from the advisory committee. Additionally, this feature doubles as a way for the advisory committee to get a response back from

the student quicker.

- Cautions and Warnings:  
Do not spam this button. Repeated abuse of the system will ultimately lead to formal complaints lodged against you by the advisory committee and/or graduate coordinator, at which point the system may ban the user or suspend them from the site.
- Procedures:
  - i. System detects DPOS has been created. System lights up the resend reminder button.
  - ii. System waits for the user to click the “Send Reminders” button for the DPOS.
  - iii. System sends out reminders to people who are linked to the user DPOS.
- Probable Errors (and their causes):
  - i. The “Resend Reminder” button is currently grayed out; this is normal if the POS has already been approved or not yet sent in. If neither of these conditions are met, it is likely that there is some other underlying issue and an email should be sent to the site administrator.
- System Autosaves DPOS for User
  - Description:  
The system detects that the user has made changes to the DPOS that they have created. A timer is started by the system for 30 seconds. Within the timer interval the system polls for new changes. After 30 seconds has passed and no new changes have been detected the system will save the DPOS for the user. It will then alert the user with an HTML pop up that lets the user know the DPOS has been successfully saved
  - Cautions and Warnings:  
If the user exits the program during the time interval the system may fail to autosave the document.
  - Procedures:
    - i. The system detects user has made changes to the DPOS
    - ii. The system creates a timer for 30 seconds and polls for new users edits
    - iii. If the user creates a new edit the timer restarts. Else skip to step iv.
    - iv. The system auto saves the DPOS and alerts the user that it has been done.  
The system overwrites the old DPOS with the new DPOS
  - Probable Errors (and their causes):

- i. The system does not autosave the document; This is not uncommon if the user is working offline or disconnects from their internet connection while the DPOS is up on their screen.
- System saves DPOS for User Upon Request
  - Description:
 

The system detects that the user has clicked the “Save DPOS” button. The system overwrites the DPOS document in the database with the current DPOS displayed on the users screen. It will then alert the user with an HTML pop up that lets the user know the DPOS has been successfully saved
  - Cautions and Warnings:
 

If the user exits the program during the save process the system may fail to save the document.
  - Procedures:
    - i. The system detects user has requested to save the DPOS
    - ii. The system overwrites the existing DPOS in the system with the DPOS open on the users screen.
    - iii. The system saves the DPOS and alerts the user that it has been done.
  - Probable Errors (and their causes)
    - i. The system does not successfully save the document when prompted; This is not uncommon if the user is working offline or disconnects from their internet connection while the DPOS is up on their screen.

## **Committee Member Capabilities**

- View Committee Student DPOS
  - Functional Description:
 

This function allows staff accounts to view student DPOS forms, provided that said accounts are part of their specific committee. This function is accessible from the main page of the application after a staff user has logged in.
  - Cautions and Warnings:
 

The system is unable to allow staff users to make changes while in this mode, but the system will save any comments made by said users.
  - Procedures:
    - i. The system waits until the “Review” button is clicked by the user.
    - ii. The system will display the first page of the submitted DPOS to the user.

- iii. The system waits for input from the navigational buttons, should the user wish to navigate through the document.
  - iv. The system waits until either the home button or the “Comment on Committee Student DPOS” operation is invoked.
- Probable Errors (and their causes):
  - i. I am unable to view a student’s DPOS; make sure that the DPOS you are trying to view is in a ready-to-review state, and that the student you are trying to view is one whose committee you are a part of.
- Comment/Provide Approval Status on Committee Student DPOS
  - Functional Description:
 

This function allows users with staff accounts to leave a comment on a student’s DPOS, provided that said users are members of the student’s committee. Additionally, the function allows staff accounts to either approve or reject said DPOS document as part of submitting their comment.
  - Cautions and Warnings:
 

There are no cautions or warnings that apply to the system in regards to this function.
  - Procedures:
    - i. On the final page of reviewing a DPOS, the user may write a comment in the provided text field.
    - ii. The system waits until the user clicks the “Submit and Approve” or “Submit and Reject” buttons.
    - iii. The system sends a notification to the owner of the DPOS form based on the user’s choice above.
  - Probable Errors (and their causes):
    - i. My comment didn’t save; please try resending your comment, there could have been a hiccup with the network connection. If the problem persists, contact the site administrator.

## Administrative Staff Capabilities

- Registration of UMS Faculty Members
  - Functional Description:

A function available to administrator users only. This function allows for administrators to create accounts with advisory committee permissions for UMS faculty members.
  - Cautions and Warnings:

With the way the function is designed, administrator log-in information should be kept confidential; only the administrator, or administrators, should know said information.
  - Procedures:
    - i. The system waits for the administrator to log in.
    - ii. The system waits for the administrator to click the “Create Account” button.
    - iii. The system grants staff privileges to the new account, marked with the “staff” tag.
    - iv. The system displays an error to the administrator should they provide an invalid email address.
    - v. The system creates the new account, and adds it to the database if the administrator provides a valid email address and password.
  - Probable Errors (and their causes):
    - i. This is native Django functionality, therefore errors should not be experienced on your end. If there are any issues with the account login, feel free to reset the account and make changes as necessary (to the password or anything else to make access to the account possible).



# Error Messages and Recovery Procedures

## All User Operations

- Create Account
  - Unsuccessful account creation
    - Cause: Invalid inputs
    - Recovery: Verify the account information entered is valid
- Verify Email
  - Any error would be system related instead of caused by the user
- Log In
  - Unsuccessful login
    - Cause: Invalid/incorrect inputs
    - Recovery: Verify the account information entered is correct
- Resend Reminder to Review DPOS
  - No errors. Note the “Resend Reminder” may be grayed out but that is normal if the POS has already been approved or not yet sent in. If neither of these are true but the button is still grayed out, it is a system error so please contact the site administrator.

## Student Operations

- Create DPOS
  - Error entering information
    - Cause: Review the error to figure out which fields are wrong and/or missing.
    - Recovery: Adjust the fields to be correct and try again.
  - Unable to create a new DPOS
    - Cause: Trying to create a POS for a DPOS that is currently in the draft stage.
    - Recovery: You can recreate the DPOS once the current one you have has been approved.
  - Accidentally created an irrelevant DPOS
    - Cause: Students are unable to delete a POS to protect from accidental deletion.
    - Recovery: Contact the site administrator to delete the POS.
- Modify DPOS
  - Information entered previously is no longer visible
    - Cause: You may have lost connection to the internet while trying to save your information and it did not save properly.

- Recovery: Check your connection and try again. If the problem persists, contact the site administrator.
- Submit DPOS for Approval
  - I did not get a confirmation email
    - Cause: You may have lost connection to the internet when hitting submit
    - Recovery: Check your connection and try again. If the problem persists, contact the site administrator.

#### Committee Member Operations

- View Committee Student DPOS
  - Unable to view a students DPOS
    - Cause: The DPOS may not be in a ready-to-review state.
    - Recovery: Verify that the DPOS you are trying to review is in a ready-to-review state, and that the student you are trying to view is one whose committee you are a part of.
- Comment/Provide Approval Status on Committee Student DPOS
  - Comment did not save
    - Cause: You may have lost connection to the internet when hitting submit
    - Recovery: Check your connection and try again. If the problem persists, contact the site administrator.

#### Major Advisor/Graduate Coordinator Operations

- Make changes to Student DPOS
  - Information entered previously is no longer visible
    - Cause: You may have lost connection to the internet while trying to save your information and it did not save properly.
    - Recovery: Check your connection and try again. If the problem persists, contact the site administrator.

#### Administrative Staff

- Registration of UMS Faculty Members
  - This is a native Django functionality so no errors should occur.

## Appendix A - Team Review Sign-off

By signing below, both parties confirm that they have reviewed the contents of this document. Additionally, both parties will confirm that they have agreed on the document's content and format.

Team Member Comments:

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Customer Name: \_\_\_\_\_

Customer Signature: \_\_\_\_\_

Date of Signature: \_\_\_\_\_

Team Names:

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Team Signatures:

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Date of Signatures:

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## **Appendix B - Document Contributions**

Liam Blair - 20%

- Error Messages and Recovery Procedures

Mac Creamer - 20%

- Instructions

Vincent King - 20%

- Preface/Introduction

Peter Riehl - 20%

- Reference Section
- Document outline

Aaron Wilde - 20%

- Overview

All

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