

Hydro One Networks Inc.

# **PILOT PROJECT:**

**P&C TRAINING SITE** 

User Experience (UX)

Design Report

Updated: 4/19/2021



## LIST OF REVISIONS

Version	Date Issued	Reasons for revision	Revised by
Draft	April 19, 2021	Initial draft	G. Wright
00			
01			

## A copy of this report shall be placed at the following location:

• <u>P&C Training Site - Supporting Documents Library</u>



# Table of Contents

Table of Contents	3
Table of Figures	7
ntroduction1	1
Background1	1
Methodology1	1
Research Objectives	1
Research Plan1	2
Screening Criteria1	2
Research Participants1	2
Registration Context	2
Quantitative (Generative) Research1	2
Qualitative (Evaluative) Research	3
Interview Script	4
Research Analysis1	6
Survey Results	6
Affinity Mapping1	7
Affinity Grouping #1: Research & Motivation1	8
Affinity Grouping #2: Instructor & Course Delivery1	9
Affinity Grouping #3: Ease of Use & Accessibility	0
Affinity Grouping #4: Registration & Follow Up2	2
Affinity Grouping #5: Challenges & Expectations2	3
Empathy Mapping24	4
Persona #1: The Student	5
Persona #2: The Minimalist (Instructor)	6
Persona #3: The Customizer (Instructor)2	7
Persona #4: The Administrator	8
Research Findings	9
Finding #1: Researching a course (as a student user)2!	9
Finding #2: Reviewing record of completion (as a student user)	0
Finding #3: Registering for a course (as student user)	1



4/19/2021	User Experience Design Report	Page 4 of 112
Student Area		
Course Form		65
Class Form		
Assignment Form		
Announcement Form		
Registration Page		
Evolution of Ideas   High Fidelity Sket	ches	54
Instructor Area		53
Student Area		
0		
Registration Page		
Class Form		
0		
. ,		
	ches	
	tifications (as an admin user)	
	ompletion for students (as an admin user)	
	an admin user)	
	se/class (as an admin user)	
	rants (as an instructor user)	
	vith announcements (as an instructor use	
	ts/solutions (as an instructor user)	
	rial (as an instructor user)	
	s (as a student user)	
	rial (as a student user)	
	trator (as a student user)	
	fter registering (as a student user)	
$\pi$	after registering (as a student user)	



Instructor Area
Notification Profile Form
Email Notifications
Style Guide
Logo
Color
Typography
Iconography
Buttons
Usability Testing
Objective
Testing Participants
Testing Methodology
Test Script (Student):
Test Script (Instructor):
Test Script (Administrator):
Usability Testing Findings
Student Feedback
Instructor Feedback
Administrator Feedback
Lessons Learned
Conclusion
References
Appendix
Preliminary Tag Cloud of Interview Responses (Participant 1)89
Preliminary Tag Cloud of Interview Responses (Participant 2)90
Preliminary Tag Cloud of Interview Responses (Participant 3)91
Preliminary Tag Cloud of Interview Responses (Participant 4)92
Preliminary Tag Cloud of Interview Responses (Participant 5)
Preliminary Tag Cloud of Interview Responses (Participant 6)94
Preliminary Tag Cloud of Interview Responses (Participant 7)95
Preliminary Tag Cloud of Interview Responses (Participant 8)96



Preliminary Affinity Map (Participant 1)	97
Preliminary Affinity Map (Participant 2)	
Preliminary Affinity Map (Participant 3)	
Preliminary Affinity Map (Participant 4)	
Preliminary Affinity Map (Participant 5)	
Preliminary Affinity Map (Participant 6)	
Preliminary Affinity Map (Participant 7)	103
Preliminary Affinity Map (Participant 8)	
Preliminary Empathy Map (Participant 1)	
Preliminary Empathy Map (Participant 2)	
Preliminary Empathy Map (Participant 3)	
Preliminary Empathy Map (Participant 4)	
Preliminary Empathy Map (Participant 5)	
Preliminary Empathy Map (Participant 6)	110
Preliminary Empathy Map (Participant 7)	
Preliminary Empathy Map (Participant 8)	112



# Table of Figures

Figure 1: Task analysis during one-on-one interview with Participant 4 (using WebEx)	.13
Figure 2: Participants' most recently experienced method of course registration	.16
Figure 3: Participants' experience with alternative methods of registration	. 16
Figure 4: Participants' preferred method of course registration	
Figure 5: Final Affinity Maps (for Preliminary Affinity Maps – see Appendix)	. 17
Figure 6: Affinity Grouping #1 – Research & Motivation	. 18
Figure 7: Affinity Grouping #2 – Instructor & Course Delivery	. 19
Figure 8: Affinity Grouping #3 – Ease of Use & Accessibility	.21
Figure 9: Affinity Grouping #4 – Registration & Follow Up	
Figure 10: Affinity Grouping #5 – Challenges & Expectations	. 23
Figure 11: Final Empathy Maps (for Preliminary Empathy Maps – see Appendix)	.24
Figure 12: Empathy Map #1 – The Student	. 25
Figure 13: Empathy Map #2 – The Minimalist (Instructor)	.26
Figure 14: Empathy Map #3 – The Customizer (Instructor)	
Figure 15: Empathy Map #4 – The Administrator	
Figure 16: Assignment Submission Form – States 1–4 (left-to-right)	
Figure 17: Announcement Form – States 1–2 (left–to–right)	
Figure 18: Registration Form – States 1–2 (left–to–right)	. 47
Figure 19: Course Form – States 1–3 (left–to–right)	. 48
Figure 20: Class Form (later known as the Class Form)	
Figure 21: Registration Page	
Figure 22: Administrator Page – Versions 1–3 (left–to–right)	.51
Figure 23: Student Page – Version 1–7 (left–to–right)	. 52
Figure 24: Instructor Page – Version 1–5 (left–to–right)	
Figure 25: Administrator Area – Layout (Versions 1–3)	. 54
Figure 26: Administrator Area	. 54
Figure 27: Administrator Area – Manage Courses	
Figure 28: Administrator Area – Manage Courses – Delete a Course	
Figure 29: Administrator Area – Manage Classes	
Figure 30: Administrator Area – Manage Classes – Edit a Class	
Figure 31: Administrator Area – Manage Classes – Delete a Class (1)	. 55
Figure 32: Administrator Area – Manage Classes – Delete a Class (2)	. 55
Figure 33: Administrator Area – Manage Registration	. 55
Figure 34: Administrator Area – Manage Registration – Register Multiple Users (1)	. 55
Figure 35: Administrator Area – Manage Registration – Register Multiple Users (2)	. 55
Figure 36: Administrator Area – Manage Registration – Register Multiple Users (3)	. 55
Figure 37: Administrator Area – Manage Registration – Delete Multiple Users (1)	. 55
Figure 38: Administrator Area – Manage Registration – Delete Multiple Users (2)	. 55
Figure 39: Administrator Area – Manage Registration – Search Records (1)	
Figure 40: Administrator Area – Manage Registration – Search Records (2)	. 55



Figure 41: Administrator Area – Manage Registration – Search Records (3)	56
Figure 42: Administrator Area – Manage Permissions	
Figure 43: Administrator Area – Manage Workflows	
Figure 44: Administrator Area – Manage Notifications	
Figure 45: Administrator Area – Manage Permissions – Add Instructor (1)	
Figure 46: Administrator Area – Manage Permissions – Add Instructor (2)	
Figure 47: Administrator Area – Manage Permissions – Add Instructor (3)	
Figure 48: Administrator Area – Manage Permissions – Add Instructor (4)	
Figure 49: Administrator Area – Manage Permissions – Add Instructor (5)	
Figure 50: Administrator Area – Manage Permissions – Remove Instructor (1)	
Figure 51: Administrator Area – Manage Permissions – Remove Instructor (2)	
Figure 52: Administrator Area – Manage Permissions – Add Student (1)	
Figure 53: Administrator Area – Manage Permissions – Add Student (2)	
Figure 54: Administrator Area – Manage Permissions – Add Student (3)	
Figure 55: Administrator Area – Manage Permissions – Add Student (4)	
Figure 56: Administrator Area – Manage Permissions – Add Student (5)	
Figure 57: Administrator Area – Manage Permissions – Remove Student (1)	
Figure 58: Administrator Area – Manage Permissions – Remove Student (2)	
Figure 59: Administrator Area – Manage Permissions – Remove Administrator (2)	
Figure 60: Administrator Area – Manage Permissions – Add Administrator (1)	
Figure 61: Administrator Area – Manage Permissions – Add Administrator (2)	57
Figure 62: Administrator Area – Manage Permissions – Add Administrator (3)	57
Figure 63: Administrator Area – Manage Permissions – Add Administrator (4)	57
Figure 64: Administrator Area – Manage Permissions – Add Administrator (5)	57
Figure 65: Administrator Area – Manage Permissions – Remove Administrator (1)	58
Figure 66: Registration Page – Layout (Versions 1–3)	
Figure 67: Registration Page	59
Figure 68: Registration Page – Search (1)	59
Figure 69: Registration Page – Search (2)	59
Figure 70: Registration Form - Layout (Versions 1-2)	60
Figure 71: Registration Form (1)	60
Figure 72: Registration Form (2)	60
Figure 73: Registration Form (3)	60
Figure 74: Registration Form (4)	60
Figure 75: Registration Form (5)	60
Figure 76: Registration Form (6)	
Figure 77: Registration Form (7)	
Figure 78: Registration Form – No Open Classes (1)	
Figure 79: Registration Form – No Open Classes (2)	
Figure 80: Registration Form – No Open Classes (3)	
Figure 81: Registration Form – No Open Classes (4)	
Figure 82: Announcement Form - Layout (Versions 1-2)	62



Figure 83: Announcement Form (1)	62
Figure 84: Announcement Form (2)	. 62
Figure 85: Announcement Form (3)	. 62
Figure 86: Assignment Form - Layout (Version 1-2)	63
Figure 87: Assignment Form – Submit Assignment (1)	63
Figure 88: Assignment Form – Submit Assignment (2)	63
Figure 89: Assignment Form – Submit Feedback (1)	63
Figure 90: Assignment Form – Submit Feedback (1)	63
Figure 91: Assignment Form – Reviewed (1)	63
Figure 92: Class Form - Layout (Versions 1-2)	64
Figure 93: Class Form (1)	64
Figure 94: Class Form (2)	64
Figure 95: Class Form (3)	64
Figure 96: Class Form (4)	64
Figure 97: Class Form – Edit Details (1)	64
Figure 98: Course Form - Layout (Versions 1-2)	65
Figure 99: Course Form	65
Figure 100: Course Form – No Open Classes (1)	65
Figure 101: Course Form – New Course (2)	65
Figure 102: Course Form – Edit Details (1)	65
Figure 103: Course Form – Edit Details (2)	65
Figure 104: Course Form – New Course (1)	65
Figure 105: Student Area	66
Figure 106: Student Area – Your Classes	66
Figure 107: Student Area – Your Assignments	66
Figure 108: Student Area – Your Assignments – View Submissions	66
Figure 109: Student Area – Your Assignments – View Solutions	66
Figure 110: Student Area – View Course Material	66
Figure 111: Instructor Area	67
Figure 112: Instructor Area – View Teaching Schedule	67
Figure 113: Instructor Area – Manage Students	67
Figure 114: Instructor Area – View Registrants	67
Figure 115: Instructor Area – Review Assignments	67
Figure 116: Instructor Area – Manage Announcements	67
Figure 117: Instructor Area – Manage Course Material – Edit (1)	67
Figure 118: Instructor Area – Manage Course Material – Upload (1)	67
Figure 119: Instructor Area – Manage Course Material – Upload (2)	67
Figure 120: Instructor Area – Manage Course Material – Upload (3)	67
Figure 121: Instructor Area – Manage Course Material – Upload (4)	
Figure 122: Instructor Area – Manage Course Material – Edit (2)	
Figure 123: Instructor Area – Manage Course Material – Edit (3)	
Figure 124: Instructor Area – Manage Course Material – Edit (4)	68



Figure 125: Notification Profile Form - New (1)	. 69
Figure 126: Notification Profile Form - New (2)	. 69
Figure 127: Notification Profile Form – Edit (1)	. 69
Figure 128: Notification Profile Form – Edit (2)	. 69
Figure 129: Admin – New Class Required (1)	. 70
Figure 130: Admin – New Class Required (2)	. 70
Figure 131: Admin – New Class Required (3)	. 70
Figure 132: Admin – Contact Us (1)	
Figure 133: Admin – Contact Us (2)	. 70
Figure 134: Admin – Technical Difficulties (1)	. 70
Figure 135: Admin – Technical Difficulties (2)	. 70
Figure 136: Instructor – Assignment – Pending Review	. 70
Figure 137: Instructor – Assignment – Review Completed	. 70
Figure 138: Student – Assignment – Submission Confirmation	
Figure 139: Admin – New Class Required (4)	. 70
Figure 140: Student – Record of Completion	. 70
Figure 141: Student – Registration Complete (1)	
Figure 142: Student – Registration Complete (2)	. 70
Figure 143: Student – Reminder	. 70
Figure 144: Primary Logo	.71
Figure 145: Primary Colors	. 72
Figure 146: Secondary Colors	. 72
Figure 147: Font Family (Regular)	. 73
Figure 148: Font Family (Bold)	. 73
Figure 149: Icons	. 75
Figure 150: Multi–state buttons (grey – unselected, black – selected)	.76
Figure 151: Single-state buttons (grey – unselected)	. 77
Figure 152: Assignment Form – Versions 2-3	. 83
Figure 153: Student Area - View Course Material - Versions 2-3	. 83
Figure 154: Course Form - Versions 3-4	. 84
Figure 155: Instructor Area - View Teaching Schedule - Version 1-2	. 84
Figure 156: Email Notifications - New Class Assigned/Class Updates	. 85



## **Introduction**

### Background

In October 2020, the P&C engineering leadership team expressed an interest in designing a tool that would allow their staff to easily register for training courses as part of their technical curriculum. Given the complexity of P&C engineering as a profession, it was indicated that junior/rotation staff would benefit from technical training courses taught by senior staff.

To develop the tool, a user experience (UX) design student was asked to create an intuitive process for managing internal training courses given the technology available (SharePoint 2010). The UX design student proposed a pilot project to test the UX design methodology's feasibility at Hydro One based on the framework outlined in Juno College of Technology's UX Design course curriculum.

## Methodology

The UX design methodology uses the British Design Council's Double Diamond design process framework which consists of four phases: 1. Discover, 2. Define, 3. Develop, and 4. Deliver. At the beginning of the project, the UX designer starts with a brief outline what is expected from the client and the goal is to get from a state of "Don't know/Could be" to a state of "Do know/Should be", through user research and testing.

In the discovery phase, the designer performs generative/evaluative research with users to understand their past experiences. Based on user feedback, the designer develops clusters which are then used to create mental models to help visualize user behavior, preferences, and tendencies. In the define phase, the designer draws insights from the mental models and uses the themes to frame the problem statements in the context of individual users. In the develop phase, the designer ideates upon the problem statements and generates potential solutions that may be feasible, given the resources available. In the deliver phase, a prototype is developed and iterated upon until the designer is ready to test for usability and to identify opportunities for improvement. The resulting design is a working product/solution that has been curated using data collected in the appropriate user context.

#### **Research Objectives**

- 1) To determine the preferred method of course registration for P&C employees
- 2) To learn about makes for a good/bad user experience when enrolling/teaching a course



## **Research Plan**

### **Screening Criteria**

Based on personal experience, the UX designer assumed that there were three user group perspectives that would need to be analyzed in order to understand the enrollment process:

- 1) Students Those who are taking the class
- 2) Instructors Those who are responsible for teaching the class
- 3) Administrators Those who are responsible for keeping the training infrastructure running

To be eligible for this study, participants needed to be Hydro One employees with experience working in the P&C engineering department and have enrolled in a course, class, or conference in the past few years.

#### **Research Participants**

Participants were recruited formally by asking their manager's permission to assist in the study and met the screening requirements. Consequently, there were 8 participants (4 students, 3 instructors, 1 administrator) who volunteered to take part in this study.

#### **Registration Context**

Based on personal experience, the UX designer assumed that there were two contexts of registration that must be considered:

- 1) Digital (Mobile or Desktop)
- 2) Physical (In–Person, Mail, or Phone)

## **Quantitative (Generative) Research**

Each participant was asked the following questions as a survey exercise with the goal of narrowing the focus of the study to a single context of registration:

- 1) How did you register for your last course (online, in-person, on the phone, mail, etc.)?
- 2) Have you ever enrolled in a course in other methods (different from the one initially mentioned)?
- 3) Would you do the other method again?



## **Qualitative (Evaluative) Research**

One–on–one interviews were conducted using the WebEx teleconferencing service. Each interview was recorded, and responses were transcribed for analysis using the browser–based white boarding software, known as <u>Miro</u>.

During the first half of the interview, the interviewer asked open-ended questions regarding their experiences with course registration. Each question was aimed at understanding before/during/after the enrollment process, as well as, what improvements the participant would make to the process to create a better user experience in the future.

During the second half of the interview, participants were asked to complete an exercise where they must describing their steps they would take if they had to research and register for a course during the interview. From this activity, the user designer could observe the participant's decision—making process in real—time and ask participant what they are feeling as they complete their journey (see figure below).

	UX Researcher	Participant 4		
		Power System Protection Training × V High Voltage Protection & Com	×   +	- a x
	om/selu/courses/prot/401/   Welcome to Hydra			N 🕁 🚺 i
SEL	SCHRUTTER FYERELEND LADENATORIES		Q Login 🚍	
Po	OT 401: Protecting wer Systems for gineers			
CEUs:				
Course B * Plus Appl	ase Fees: \$3,000 USD* cutoe Tax			
This is a fr PROT 401	ription we day course. provides an overview of the principles and schemes for protecting power	Available Courses		
Waiting for selinc.com.	formers, his car, conserators, and motors. The course provides basic			

Figure 1: Task analysis during one-on-one interview with Participant 4 (using WebEx)



### **Interview Script**

#### Introduction

Introduce interviewer:

- 30 minutes – over WebEx

Why are we here?

- To learn about your experience enrolling in a class/course.

Recording permission:

- Ask for permission to record.
- The recording shall be transcribed and feedback will be used to build mental models to develop a better understanding of user preferences.
- This data will be used by to guide decisions in the creation of the P&C training site.
- This data will be primarily shared with managers as a pilot project for the UX design methodology at Hydro One.

During the interview, we will be:

- Asking questions pertaining to course registration experiences
- We will walk through the registration process for a technical training course to get more feedback about your expectations, observations, and experience.

#### **Interview**

Tell me about the last time that you registered for a course?

- What was your key motivator?
- How did you register for it (online, in person, on the phone, mail, etc.)?
- Why did you enroll in the course in this way instead of other mediums (online, in person, phone, mail, etc.)?
- How easy/difficult was it?
- What were some things that you liked?
- What were things that slowed you down/didn't work?

What were the things that you did before filling out the registering for the course?

- What were you doing before you filled out the form?
- Did you research the course? Look into the instructor? Find ratings? Talk to friends?
- Did you make the decision to enroll alone or with someone else?

What were the things that happened after you filled out the registration for that course?

- Did you receive a confirmation?
- Was follow up instructions provided to you (next steps, expectations, etc.)



Have you ever enrolled in a course in other methods (different from the one initially mentioned), what was that experience like?

- How many times did you enroll in this method?
- Would you do it again?

Do different course formats matter to you when picking a course (i.e. in-person, online)?

- Would these choices affect your decision about enrolling?
- Why or why not? Specify the key component that matters.

What device would you prefer to use for the registration (desktop, mobile)?

How would you improve this registration process (before/during/after)?

#### Instructor-only questions:

As an instructor, are there any additional features that you would find useful when teaching a course?

As an instructor, are there any features that you wouldn't find useful when teaching a course?

#### Task Analysis

Scenario:

- Imagine you're looking to enroll online in a <u>P&C continuing education course</u>. Please walk me through the steps that you would take as you make your decision to enroll.

Notes for the interviewee:

- Act on your own behalf
- Pretend that you're enrolling in a real course
- Please articulate your decisions
- I may stop you at various points in your explanation to ask questions about your decisions.

#### Conclusion

Can we follow up with you on any additional testing in the weeks to come?

Do you have any questions for me?

Thank you for your time, and have a safe day!



## **Research Analysis**

## **Survey Results**

The results of the survey-type questions were used to create graphs (see figures below), and as a result, the following observations were made:

- 1) Online course registration was the most common recent experience (87% of participants)
- 2) In-person course registration was the most common alternative method of registration (62% of participants
- 3) Online was the preferred method of registration by users (88% of participants)

Based on the survey findings, online registration became the focus of the UX design activity.



Figure 2: Participants' most recently experienced method of course registration

Figure 3: Participants' experience with alternative methods of registration



method of course registration



## Affinity Mapping

A series of affinity maps were created for each user (see <u>Appendix</u>) by grouping feedback into themes. After combining similar themes, five themes emerged which are displayed in the figure below:

- 1) Research & Motivation
- 2) Instructor & Course Delivery
- 3) Ease of Use & Accessibility
- 4) Registration & Follow Up
- 5) Challenges & Expectations

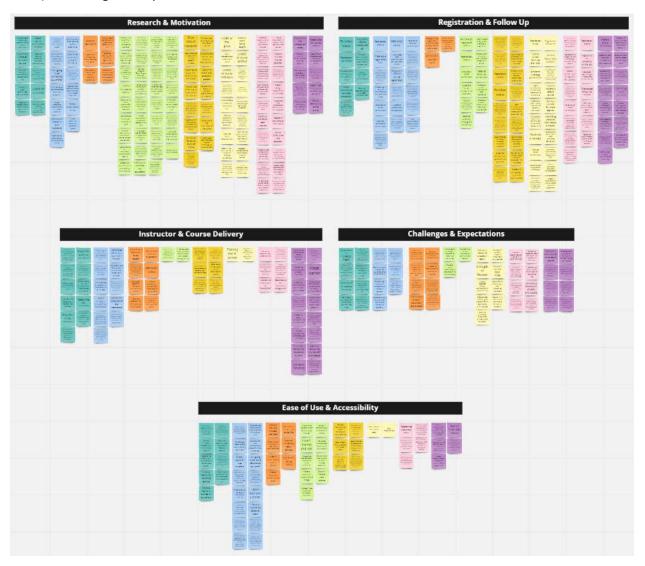


Figure 5: Final Affinity Maps (for Preliminary Affinity Maps – see <u>Appendix</u>)



## Affinity Grouping #1: Research & Motivation

This group included each of the data points where users described the aspects of their research process when building a business case to enroll in a course. This includes identifying their motivations, determining the applicability of course contents, gathering feedback from peers, performing self–assessments, cost/benefit analysis, and logistic factors that they take into consideration.

- Users generated lots of questions during the research process for a course
- Users prioritized content and schedule over the instructor assuming that the institution that is presenting information is reputable
- Users recognized that HONI has a particular way of doing and so they're critical of the applicability of external course contents
- Users relied on word–of–mouth testimonials in order to form the bulk of their opinions on a course, instructor, or institution
- Users assessed their own abilities, identified gaps in their skillset, and sought training to fill those gaps
- Users relied on their managers for guidance in picking the right course from the options outlined in their business cases
- Users performed cost/benefit analysis exercises to determine if the time/energy investment in a course would be worth the effort
- Users hoped to continue their educational development despite being stuck at home during lockdown
- Users often looked internally for continuing education/learning opportunities within the company and team sites
- Users often made the decision to enroll in a course alone unless they had colleagues/friends that was planning on attending the session
- Users disliked sales pitches from admissions staff when researching a course because they simply wanted to assess a course's applicability



Figure 6: Affinity Grouping #1 – Research & Motivation



## Affinity Grouping #2: Instructor & Course Delivery

This group included each of the data points where users described their preferences regarding the instructor and the delivery of the course itself. This includes their preferences for attending a class, audience participation, teaching styles, training material, class sizes, technical barriers, and social factors that they take into consideration when evaluating the quality of a course.

- Users preferred attending classes in-person if the course necessitates building a network and making personal connections
- Users valued audience participation and felt bored when instructors did not engage their students regularly
- Users preferred attending classes in-person when the course content is challenging because it helps them to stay motivated and focused
- Users evaluated instructors and determined whether their instructors had enough practical experience to have their opinions carry any weight
- Users preferred having the physical copies of the training material
- Users preferred smaller class sizes in order to minimize distractions and it offerred them more opportunities to ask questions
- Users felt concerned about technical barriers/difficulties reducing the quality of comprehension during virtual classes
- Users valued the serendipity of meeting with likeminded individuals in the same space and having informal discussions with other attendees

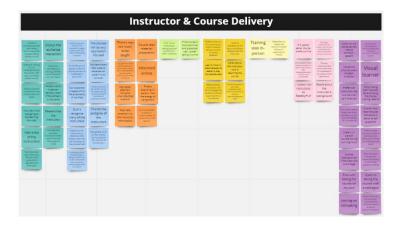


Figure 7: Affinity Grouping #2 – Instructor & Course Delivery



## Affinity Grouping #3: Ease of Use & Accessibility

This group included each of the data points where users discussed their preferences for usability in the registration process. This includes their preferences for task completion, receiving feedback, account login, duplicated efforts, laptop/mobile preferences, sentiment towards the user interface, process mapping, system status, timeout constraints, distractions, and opportunities to speed up the enrollment process if they are well-prepared.

- Users preferred to be able to complete the task of registering for a course in a single sitting
- Users preferred to receive timely feedback after being hit with a roadblock in the registration process which provides them with a clear path forward
- Users preferred to have the system remember their personal information
- Users disliked entering the same information multiple times or maintaining multiple account login details
- Users preferred to use a laptop/desktop for work/serious tasks because they have more control over tabs, windows, and data entry
- Users avoided using their mobile phones for work because they disliked mixing their personal life with business and inputting information using a touch screen
- Users expected a simple and clear registration process that's intuitive enough for them to not even notice or remember it
- Users preferred having the entire registration process mapped out as well as continuous updates on the system status
- Users disliked timeout conditions being set on their registration form because it forces them to reenter information if they took too long to complete the task
- Users preferred using the mobile application for low commitment browsing if they are away from their work laptop or travelling for work
- Users disliked pop-ups that distract them from achieving their goals in the registration process
- Users preferred having the option to register for multiple courses at once if they know the course code ahead of time
- Users expected a 'hand-holdy' user interface with a straight line to accomplish a given task



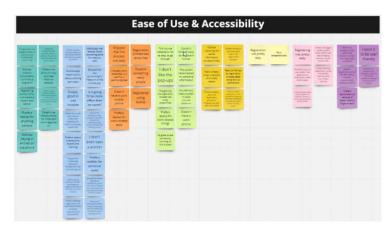


Figure 8: Affinity Grouping #3 – Ease of Use & Accessibility



## Affinity Grouping #4: Registration & Follow Up

This group included each of the data points where users described their preferences towards the registration and follow up process. This includes pre-course instructions, email confirmation, reminders, communication, getting questions answered, logging in, and dealing with salespeople when their assessing the course's applicability.

- Users preferred clear instructions to be laid out prior to the course beginning which indicates where to go, what to bring, what to prepare, and next steps
- Users expected a formal receipt emailed to them to use when filling out their expenses
- Users expected an email confirmation indicated that they've been successfully enrolled in the course
- Users expected an email reminder a week/month before the scheduled start date of their course
- Users expected consistent communication leading up to the course starting because they're often scattered thinking about different projects
- Users preferred having the ability to have their burning questions answered in a timely manner
- Users preferred when the registration remembers and auto-fills their information so that they don't need to duplicate their efforts.
- Users preferred using single sign-on through a social media account so that they don't need to maintain multiple credentials across sites
- Users expected instructions for how to submit homework assignments electronically
- Users preferred to test out the course platform prior to beginning the course in order to iron–out any technical issues
- Users preferred online course registration for smaller-scale courses
- Users preferred in-person/phone registration for more substantial courses but still expected commitments to be in writing (electronic/physical)
- Users preferred to opt-in to newsletters and promotional material rather than being automatically signed up during registration
- Users expected a calendar placeholder for the course in order to block out their time



Figure 9: Affinity Grouping #4 – Registration & Follow Up



## Affinity Grouping #5: Challenges & Expectations

This group included each of the data points where users outlined past challenges and their expectations for potential solutions. This includes instructor–specific functionality, uploading contents, sending announcements, segmenting content, sending out pre–read material, keeping a record of completion, editing content, and notification preference flexibility.

- Instructors expected the site to be simple with few workflows to cause grief in the long term
- Instructors expected a place to upload pre-read material for students to review ahead of time
- Instructors expected a place to upload assignments which could be partitioned by class/class
- Instructors expected a way to send out announcements to their students via email
- Instructors expected a way to drip-feed educational contents to students (if needed)
- Instructors expected to be able to upload the contents to the site once and allow students to reference them as they need them
- Instructors expected a record of completion be tracked in the backend
- Administrators expected the contents on the site to be easily edited and contain job aids for how to make changes
- Administrators expected a basic course outline indicating the assigned instructor and a call to action directing students to the registration form
- Administrators expected a completion record email to be sent to the admin/manager after the course has been completed to act as a backup record
- Administrators indicated that managers expected to have the ability to turn off email notifications



Figure 10: Affinity Grouping #5 – Challenges & Expectations



## **Empathy Mapping**

A series of empathy maps were created for each user (see <u>Appendix</u>) by grouping feedback based on what each user 'says', 'does', 'thinks', or 'feels' during the course registration process. After analyzing the similarities and differences between each participant, four distinct user personas emerged, which are displayed in the figure below:

- 1) The Student
- 2) The Minimalist (Instructor)
- 3) The Customizer (Instructor)
- 4) The Administrator

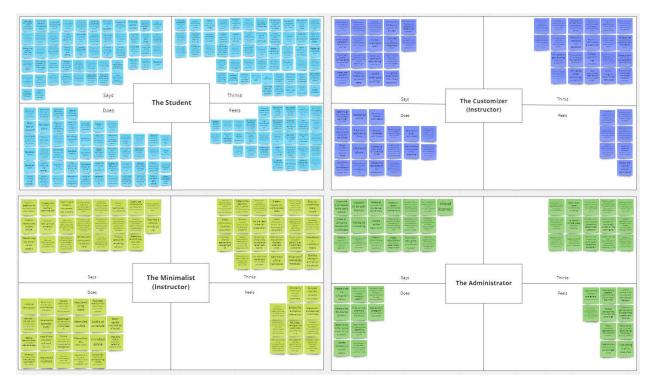


Figure 11: Final Empathy Maps (for Preliminary Empathy Maps – see <u>Appendix</u>)



## Persona #1: The Student

Whether new or seasoned in their career, this user group expected a guided experience as they researched and registered for a course. From this user's perspective, each stage of the registration process needed to be clearly outlined upfront and instructions needed to be provided in order to help mitigate roadblocks. This user group expected immediate feedback to get their questions answered, and preferred receiving commitments in writing. This user group preferred to complete the registration in a single sitting, and felt frustrated when hit with administrative barriers or timeouts. When researching a course, this user group preferred to gather as much information from the site/peers before making the decision to enroll, and factored ratings into their decision making process. This user group focussed heavily on the course contents and performed a cost/benefit analysis on whether the contents will be applicable to their role. Often times, this user group made the decision to enroll in the course alone, although they were open to attending with a colleague. Further, this user group preferred to attend in–person sessions wherever possible and completed the registration process on a work laptop rather than mobile phone in order to keep personal/business lives separate.

- "I picked courses that were more relevant to my work"
- "I know what I don't know"
- "I attend certain sessions just to ask difficult questions"

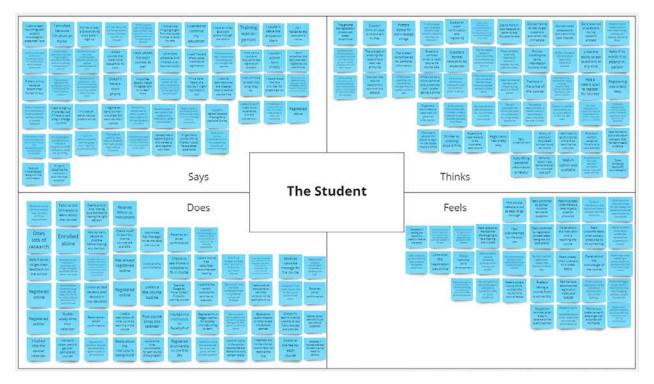


Figure 12: Empathy Map #1 – The Student



## Persona #2: The Minimalist (Instructor)

Instructors expected a very simple user experience and aimed to minimize the time spent managing the curriculum in the training platform. From this user group's perspective, the training platform should be a place to store resources that students can reference after/between classes as they see fit. Similarly, they were open to providing studnets with all of the content up front and letting them govern themselves on how they want to interact with it.

- "I have a lot of projects on the go, I don't have time to put content into the website (running the course)"
- "I want there to be minimal automation (only that which is necessary) and fewer workflows that could cause grief"
- "We don't want anything complicated, very straightforward, in terms of interface and the simplicity of what's in it"

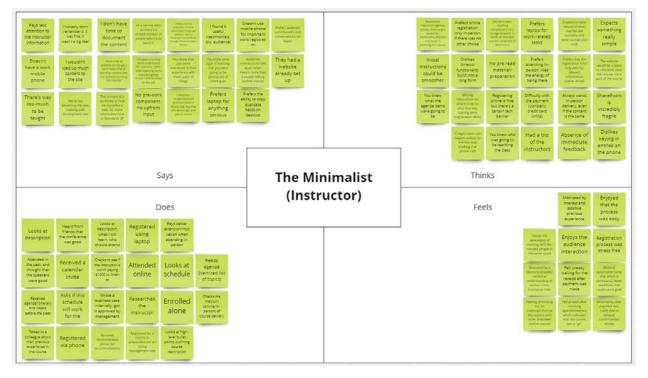


Figure 13: Empathy Map #2 – The Minimalist (Instructor)



## Persona #3: The Customizer (Instructor)

Instructors expected the ability to customize the content delivery experience for their students. From this user group's perspective, the site should allow the instructor the ability to separate and partition course readings, assignments, and content by class so that they're able to drip—feed the content to the students as they reach each milestone in the course. Similarly, they expected the attendance and student records to be tracked in the backend.

- "I expect a way to mass email course students that allows flexibility"
- "I prefer flexibility to manage the course, not overly-prescriptive"
- "I expect a way to partition assignments for new students from previous student solutions"

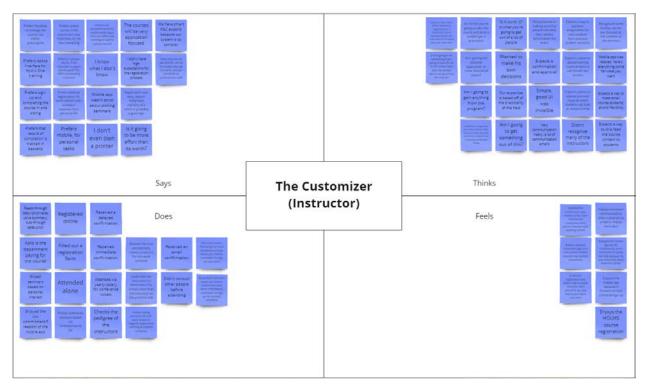


Figure 14: Empathy Map #3 – The Customizer (Instructor)



## Persona #4: The Administrator

Administrators expected the site to be easily edited and maintained by supplementing their role with comprehensive job aids. This user's role had four components, setting up courses, editing existing course details, scheduling a class, and tracking completion records. Once a course had completed, they expected to receive a the student's proof of completion to be sent as a backup record to themselves and their manager, as well as the ability to turn on/off notifications as per their manager's request.

- "I want the training site to be easily edited"
- "I expect good job aids on how to edit content on the training site"
- "I want it to be user friendly"

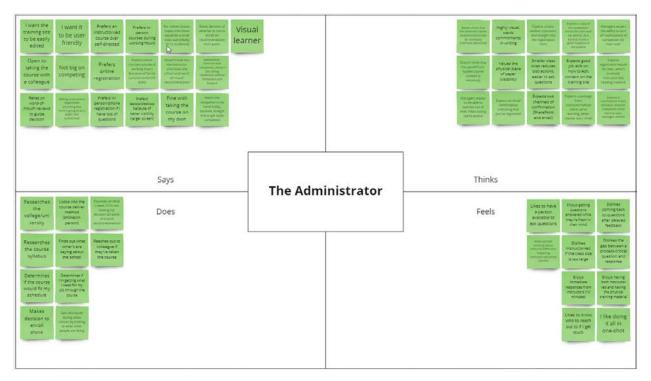


Figure 15: Empathy Map #4 – The Administrator



## **Research Findings**

### Finding #1: Researching a course (as a student user)

#### We know/believe that:

Students need to be able to perform a basic search into the details of a course before enrolling.

#### This is a problem because:

There is currently no way for a user to see a list of all the courses that are offered, or for them to gauge whether a given course would be useful to their professional development. Similarly, there is no way for students to assess the course requirements to determine if they meet the job/experience criteria prior to registering.

#### Our solution should enable:

Users to quickly browse through the course description, outline, time commitments, instructors, prerequisites, and requirements before making the decision to enroll.

#### The goal/job/task:

To develop a system that allows students to browse through available courses and gather the necessary information needed to provide them with confidence when deciding to sign up.

#### Insight #1: Problem Framing (4W Method)

Our curious student has the problem that they cannot perform preliminary research on a P&C training course when they are determining if they should register. Our solution should deliver a way for students to browse through available courses and gather the necessary information so that they feel confident enrolling in the next class.

#### Ideation #1: "How Might We" statement:

How might we help our curious student find what they're looking for when researching available classes?

- Create a course list with definitions, outlines, instructor, time commitments and requirements
- Allow users to open a form to learn more about a given course
- Show users which classes are planned or a given course
- Redirect users to the appropriate class registration form from the course form
- Clearly outline the steps/process for completing the registration before initiating a call to action (i.e. register now)



## Finding #2: Reviewing record of completion (as a student user)

#### We know/believe that:

Students need to be able to review their record of previously completed courses, so that they can determine which courses are still pending.

#### This is a problem because:

There is currently no way of tracking the courses that a student has completed as part of their P&C professional development plan, in a way that is easily accessible to the student.

#### Our solution should enable:

Users to assess whether they are on track to accomplishing their professional development goals. User research suggests that users prefer to fill gaps in their skillset, and so, this solution would provide them with visibility of where they stand.

#### The goal/job/task:

To develop a system that shows users their own personalized record of enrolled/completed courses, as well as a full list of courses that may become available as they progress in their careers.

#### Insight #2: Problem Framing (4W Method)

Our responsible student has the problem that they cannot review their record of completion for P&C development courses when they are deciding which courses to take next. Our solution should deliver a way for students to view their transcript and determine if they meet the necessary pre-requisite requirements so that they feel encouraged to progress.

#### Ideation #2: "How Might We" statement:

How might we help our responsible student find out which courses they have enrolled-in and completed?

- Create a database containing each student's course code, completion date, name, instructor, and class code.
- Automate the population of the database once the administrator marks a class form as "complete"
- Allow records of completion to be added/edited/removed by the administrator
- Provides students with a view which shows them only their individual records (filtered by user)



## Finding #3: Registering for a course (as student user)

#### We know/believe that:

Students need to be able to register for a class when it becomes available/open for applicants

#### This is a problem because:

There is currently no way of keeping track of student registration, or gauging student-interest in a given course topic in a structured way that is repeatable for various course topics.

#### Our solution should enable:

Users to demonstrate their interest in attending a course, as well as, reserving their spot in the class on a first–come/first–serve basis.

#### The goal/job/task:

To develop a system that takes in the personal details for an applicant, and stores the applicant as a record in the system. Once a certain number of users apply for a given class, the system should prompt the administrator to schedule the sessions and limit any additional applicants from registering for a given class.

#### Insight #3 Problem Framing (4W Method)

Our motivated student has the problem that they cannot reserve a spot in the next class after they have decided to register for a course. Our solution should deliver a way for students to immediately transition from researching and into registering for a course, so that they feel satisfied by completing their goal without hitting any administrative walls.

#### Ideation #3: "How Might We" statement:

How might we help our motivated student more easily reserve their spot in an upcoming class after they have made the decision to enroll?

- Allow users to find open classes and to notify the administrator if no open classes are available
- Create a redirection link/button which takes users from the course summary to the registration form
- Provide users with the ability to add their name to a registration form to reserve their spot
- Carry over the users personal details from their user profile in the active directory
- Allow users to save their progress and submit their registration form to the database



## Finding #4: Receiving confirmation after registering (as a student user)

#### We know/believe that:

Students need to be able to receive confirmation that their slot has been reserved and their registration has been successful, in order to have piece of mind.

#### This is a problem because:

There is currently no structured way of providing registrants with feedback in a timely manner, while providing them with a commitment made–out in writing to demonstrate to their manager that they've completed the registration process.

#### Our solution should enable:

Users to have the ability to show their manager that they have initiated the registration process and indicate that they are in the process of taking steps forward in their professional development.

#### The goal/job/task:

To develop a system that automatically notifies/sends confirmation to users when their registration form has been completed and processed by the system.

#### Insight #4: Problem Framing (4W Method)

Our busy student has the problem that they do not receive immediate confirmation when registering for a class. Our solution should deliver a way for students to automatically receive feedback after completing actions in the registration process, so that they feel at ease with the timely response.

#### Ideation #4: "How Might We" statement:

How might we help our busy student receive confirmation that their spot has been successfully reserved in a class after signing up?

- Allow users to opt-in to receiving notifications at the time of registration
- Once submitted, send an automated email confirming that their actions have been processed.
- Outline next steps for users in the confirmation email
- Allow users to retroactively edit their notification preferences through some mechanism managed by the administrator



## Finding #5: Receiving a reminder after registering (as a student user)

#### We know/believe that:

Students that have many projects on the go need reminders sent prior to the class's start date, especially when they have registered several months before the classes are scheduled.

#### This is a problem because:

There is currently no structured way of automatically notifying users at set time intervals when they have got a course start date upcoming. This lack of proactive messaging may lead to students getting double booked or forgetting to carve out time in their week to prepare.

#### Our solution should enable:

Users to have the ability to "turn on" reminder notifications when registering for a course, so that they don't miss out on any important deadlines.

#### The goal/job/task:

To design a form element that will allow users to receive reminder notifications and create a system that detects upcoming course start dates and reaches out to registrants at set times to remind them that the kickoff is fast approaching.

#### Insight #5: Problem Framing (4W Method)

Our engaged student has the problem that they do not receive reminder emails in the days/weeks leading up to a class start date when they have registered months in advance and are tied up with projects. Our solution should deliver a way for students to opt-in to reminders so that they feel relieved in knowing that the class is still happening.

#### Ideation #5: "How Might We" statement:

How might we help our engaged student stay on top of their upcoming course commitments?

- Allow users to opt-in to receiving reminders ahead of their class start date
- Generate automated reminder emails for students in the weeks leading up to the class start date in the form.



## Finding #6: Contacting the administrator (as a student user)

#### We know/believe that:

Students who are performing their pre–registration research into a course need to be able to reach out to the administrator to get their questions answered in a timely manner.

#### This is a problem because:

Aside from sending an email/calling the administrator, there is no way of tracking frequently asked questions for a given course. Without being able to track these gaps in understanding, the course outlines/descriptions cannot be improved over time. Similarly, ideas for more courses into topics that may not be covered by a given course are also not tracked in a repeatable way.

#### Our solution should enable:

Users to have a way of quickly reaching out to the administrator in order to get their questions answered. These questions could be recorded and used to improve the course descriptions/contents in the future.

#### The goal/job/task:

To deliver a system that takes-in user questions and redirects the message to the respective individual who can best answer the question. Further, the system should notify the administrator via email and store a record of the interaction for future improvements/clarification.

#### Insight #6: Problem Framing (4W Method)

Our inquisitive student has the problem that they cannot easily reach out to a course administrator when questions crop up during the research process. Our solution should deliver a way for students to reach out to their administrator while keeping a record of the questions/correspondence so that students feel comforted by the customer service.

#### Ideation #6: "How Might We" statement:

How might we help our inquisitive student more easily reach out to their administrator with their burning questions?

- Create a contact form that users can submit during the research/registration process that allows them to contact the administrator
- Automatically send the question to the administrator via email
- Store the contact message in a FAQ mailbox/database



## Finding #7: Accessing course material (as a student user)

#### We know/believe that:

Students who are registered for a course need to be able to access the contents/reading material ahead of time so that they can be prepared for their first day of class.

#### This is a problem because:

There is currently no structured course documents filing/categorization system that easily/quickly allows users to find what they are looking for when attending a course. This may lead to students feeling confused/discouraged to take the course seriously if this information is not provided to them in a timely/easily digestible manner, which may lead to poorer comprehension of the subject matter.

#### Our solution should enable:

Users to have a clear path towards the necessary preparatory/reading material for a course immediately after they've completed their course registration and received their enrolment confirmation. This functionality would ensure a consistent logical flow for users who are familiar with course registration through university portals (i.e. D2L/Blackboard).

#### The goal/job/task:

To design a system that immediately provides users with access to the necessary learning materials for their given course. Similarly, this system also needs to create a connection between a given course code and the documents that are stored/maintained on the server.

#### Insight #7: Problem Framing (4W Method)

Our proactive student has the problem that they cannot easily access the course reading material ahead of each lesson when they are preparing for a course. Our solution should deliver a way for students to access the most up-to-date version of their respective course material so that they feel prepared going into each lesson.

#### Ideation #7: "How Might We" statement:

How might we help our proactive student gain access to the reading material before the course starts so that they can be prepared on their first day?

- Provide the users with a link to the course documents library when they receive their confirmation
- Allow users who navigate to the course documents library the ability to browse for what they want by instructor, course code, or topic



## Finding #8: Submitting assignments (as a student user)

#### We know/believe that:

Students need to be able to submit their assignments electronically for their instructor to review/provide feedback in a timely way.

#### This is a problem because:

There is currently no system in place to allow students to easily upload their assignment/solutions into a centralized space where the instructors can see/interact with them. As a result, the process of getting their work reviewed is not immediately clear to the students.

#### Our solution should enable:

Students to clearly understand what is expected of them, how to accomplish their goals, and what the process is for getting feedback on their assignments.

#### The goal/job/task:

To develop a system that simplifies the assignment submission process by outlining the steps, providing a link to a submission form, and updating the user with a confirmation that their work has been received and is being reviewed. Similarly, this system should also notify the instructor by providing them with a clear path towards reviewing the work, providing commentary, and allowing them to upload a revised/marked up version of the assignment. Finally, the students should be notified when their assignment is processed.

#### Insight #8: Problem Framing (4W Method)

Our responsible student has the problem that they cannot submit their assignments to a shared space where their instructor can review it when they are taking a class. Our solution should deliver a way for students to easily upload their assignments and get timely feedback from their instructor so that they feel guided.

#### Ideation #8: "How Might We" statements:

How might we help our responsible student submit their assignment so that their instructor can review it and provide feedback?

- At the time of receiving confirmation, provide users with a link/instructions for how to submit their assignments
- Allow users to open a submission form via email that requires their course code, name, date, assignment title, and instructor
- Notify users with a confirmation when the assignment has been processed. Further, notify the instructor with a link to the form



# Finding #9: Uploading course material (as an instructor user)

## We know/believe that:

Instructors need to be able to upload course material (readings, syllabus, tutorials), so that their students can access it prior/during/after the course. This material needs to be revisable and kept up to date in order to stay relevant to future alumni students that will be referencing the material.

## This is a problem because:

There is currently no system in place that would allow instructors to upload course content. Without a structured approach to storing, categorizing, and partitioning the content in a way that is easily searchable, students may have issues finding the resources that they need. Similarly, the students may also struggle to find the most up-to-date version of the material. Further, without a centralized storage location, course information may be lost during employee turnover/rotations.

## Our solution should enable:

Instructors to easily upload their course contents, so that the documents get stored/organized systematically. Further, the students need to be able to access the relevant contents for their respective courses.

## The goal/job/task:

To develop a system that collects metadata at the time of document submission which will allow students to easily search for what they want (i.e. course code, topic, instructor). This solution would serve as a working–repository for the most up–to–date course contents.

## Insight #9: Problem Framing (4W Method)

Our organized instructor has the problem that they cannot easily upload course material for their students to review when they're teaching a class. Our solution should deliver a way for instructors to upload and update their course material so that their students feel like they are getting access to the most up-to-date training documentation.

## Ideation #9: "How Might We" statement:

How might we help our organized instructor upload and maintain their course documents for their students?

- Provide instructors with a document library that allows them to store, categorize, and edit their course material
- Allow instructors to group documents by course code or class code
- Give instructors the ability to version control
- Allow instructors to see all of their course documents as well as legacy documents
- Give instructors the ability to control the order of documents by type (i.e. assignment, quiz, etc.)



# Finding #10: Uploading assignments/solutions (as an instructor user)

## We know/believe that:

Instructors need to be able to upload assignments/solutions and have the flexibility to make certain portions of the content visible/hidden to students at the instructor's discretion. Further, the solution needs to allow instructors to have the ability to opt-out of managing the visibility of the content and allow them to make all of the content visible to their students at once.

## This is a problem because:

There is currently no system in place that would give the instructors a high-level of flexibility/autonomy over how the course is run. Without this functionality, instructors may find it challenging to transfer the knowledge in the appropriate doses to their students, so that they don't get overwhelmed with new information.

## Our solution should enable:

A way for instructors to have control over the visibility/accessibility of their course content for students. This solution should allow instructors to have the freedom to "turn on/off" content's visibility from the primary audience, while preserving the course content's categorization information in the repository. This solution would prevent the instructors from having to re–upload content during each class, and instead giving them agency over what is visible.

## The goal/job/task:

To develop a system that gives instructors control over who can see what course content, and when they can see it.

## Insight #10: Problem Framing (4W Method)

Our methodical instructor has the problem that they cannot easily control the availability of certain course documents (assignments, lectures, solutions,) when they are teaching a class. Our solution should deliver a way for instructors to have a level of autonomy over how their content gets released to students so that their students don't feel overwhelmed by information overload.

## Ideation #10: "How Might We" statement:

How might we help our methodical instructor more easily control the availability of their course contents for their students?

- Enable instructors to categorize documents as active/inactive so that they appear/disappear from the student's perspective
- Allow instructors to edit the properties of multiple documents at once from a datasheet view
- Allow instructors to easily contact their students when new content becomes available



# Finding #11: Contacting students with announcements (as an instructor user)

## We know/believe that:

Instructors need to be able to send announcements to students in their class, in order to notify them of changes, updates, and feedback. This functionality also needs to keep a record stored on the server for future reference in upcoming classes.

## This is a problem because:

There is currently no system in place that would allow instructors to address their class. Without this functionality, instructors would find it challenging to address their students in a structures way, while keeping a record of the correspondence on a centralized storage location.

## Our solution should enable:

A way for instructors to quickly compose a message to their entire class via email, while providing students with a predictable messaging format (i.e. Class Code – Announcement). Further, this solution should allow for future instructors to reference what was done in previous classes to ensure continuity in correspondence.

## The goal/job/task:

To develop a system that guides instructors through announcement message composition, and stores the message in a centralized location, while relaying the message to the students who are registered for the class.

## Insight #11: Problem Framing (4W Method)

Our communicative instructor has the problem that they cannot easily send out announcements to their students when they are teaching a class. Our solution should enable instructors to have the freedom to send out structured messages to their students while keeping a record of the correspondence so that their students feel informed.

## Ideation #11: "How Might We" statement:

How might we help our communicative instructor more easily connect with their students so that their announcements are received?

- Create a form that lets an instructor pick a class to address, and automatically populates the recipients.
- Allow instructors to have the freedom to choose whether or not to use the emailing tool
- Store a copy of every announcement to the server for future reference
- Provide a link to the course documents library with each new announcement so that users can easily access the course documents



# Finding #12: Viewing course registrants (as an instructor user)

## We know/believe that:

Instructors need to be able to see which students have registered for a given class.

## This is a problem because:

There is currently no system in place which provides the instructors with transparency into the interest– levels of their upcoming classes. Further, without this visibility, instructors are unable to gauge who their students are and whether their students would be receptive to a certain teaching style/method based on their familiarity with the course topic.

## Our solution should enable:

Instructors to have visibility into the students who are registered to attend their next class. Further, this solution should provide visibility to the site administrator to show which courses are in high–demand and demonstrate which courses may require additional classes to satisfy the interest.

## The goal/job/task:

To develop a system that shows a record of all the registrants that are signed up for a given class, which is visible to the instructor of that class.

## Insight #12: Problem Framing (4W Method)

Our investigative instructor has the problem that they cannot easily see which/how many students have registered for their upcoming class when they are preparing their lesson plan. Our solution should deliver a way for instructors to gain visibility into their class composition so that they feel primed for a successful session.

## Ideation #12: "How Might We" statement:

How might we help our investigative instructor find out who/how many students are registered for their next class?

- Provide instructors with the ability to easily see which students are registered for each class through a list or a form
- Offer instructors the ability to see their class when they send out announcements by querying the class form
- Allow instructors to see a registration list (where status = enrolled), that is grouped by class code and filtered by instructor. Therefore, only showing the classes that pertain to a given instructor.



# Finding #13: Setting up a new course/class (as an admin user)

## We know/believe that:

The administrator needs to be able to set up new courses (description, requirements, audience, time commitments) as they become necessary by the P&C Engineering team. Further, the admin needs to be able to set up a new class and assign an instructor, so that students can begin registering for the class.

## This is a problem because:

There is currently no system in place that would give the administrator a high-level of autonomy over the course delivery. Further, by not providing the administrator with this structured approach to course management, the course delivery method many not be consistent year–over–year as new staff enter/exit the group.

## Our solution should enable:

Administrators to have the ability to handle all of the administrative tasks in getting a course up and running as easily as possible. This solution should give the admin control over which courses are in the system, which ones are active (accepting applicants), and the logistic/descriptive details for each course. An admin should be able to set up a new course, fill in the description/instructor/schedule, generate a new class, edit existing information, delete courses/classes, and activate/deactivate the registration.

## The goal/job/task:

To develop a system that allows the admin to easily manage the course logistics, descriptions, activity, and maintain a course catalogue as courses are added/removed.

## Insight #13: Problem Framing (4W Method)

Our decisive administrator has the problem that they cannot easily set up a new class when they're planning a course to address an area of need for their students. Our solution should deliver a way for the administrator to create and edit the details of a course. Further, the solution should enable administrators to initiate a new class so that students can sign-up and feel confident in knowing that their spot is reserved.

## Ideation #13: "How Might We" statement:

How might we help our decisive administrator more easily set up a course or class so that students can begin to sign–up?

- Allow admins to create new classes from an existing course list containing the description, requirements, etc.
- Allow admins to create a new class instance form which pulls information from the parent course list, and systematically generates a class code based on the course code
- Allow admins to "activate" a class via the class form, indicating that the course is currently "In Progress"



## Finding #14: Scheduling a class (as an admin user)

## We know/believe that:

Once the necessary number of registrants have applied to a given class, the site administrator needs to be notified and be able to easily take the class information (instructor, course code, outline, registrants) and begin scheduling timeslots in users' calendars for the training sessions.

## This is a problem because:

There is no system in place that would give the administrator an easy way of assigning a scheduled start date/end date for a class. Further, there is no automated system that would notify the admin that a course has reached the registration capacity, prompting the admin to begin scheduling sessions.

## Our solution should enable:

Administrators to have the ability to document the planned start date for a class and be notified when an appropriate number of users have applied, issuing a prompt to start booking sessions.

## The goal/job/task:

To design a system that recognizes when ample registrants have applied to a class, and notifies the admin with the appropriate details/links to begin scheduling sessions.

## Insight #14: Problem Framing (4W Method)

Our meticulous administrator has the problem that they cannot easily tell when the number of class applicants has reached the threshold (i.e. 5 applicants). Our solution should deliver a way for the administrator to know when scheduling action is necessary so that they feel on top of their course management accountabilities.

## Ideation #14: "How Might We" statement:

How might we help our meticulous administrator know that a class should be scheduled?

- Notify the admin when a classes' application–level reaches the threshold by counting the number of applicants for a given class code
- Provide the admin with instructions for how to proceed, which includes a link to see the registration records for that class



# Finding #15: Viewing a record of completion for students (as an admin user)

## We know/believe that:

Administrators need to be able to easily search for a students' record of completion for a given course.

## This is a problem because:

There is no system currently in place that would give the admin this level of flexibility into each student's completion record. By lacking this visibility, it becomes challenging for the admin to keep track of their employees' development plans/requirements, and may make it more difficult for manager to resource plan in their department, especially for larger teams.

## Our solution should enable:

Admins to have the ability to edit/see all of their employees' completion records, organized by employee's manager so that it is easier to separate applicants by reporting relationships.

## The goal/job/task:

To design a system that allows the admin to view and search through a given employee's record of completion. These records of completion should be system generated as a result of a class nearing completion, however, it should also allow the admin to manually add/edit completion records when necessary. Further, managers should be notified each time that a record is added for their team.

## Insight #15: Problem Framing (4W Method)

Our supervisory administrator has the problem that they cannot easily keep track of their students' completion records when they are following up on their students' development plans with their manager. Our solution should deliver a way for the administrator to easily see/edit their student records, so that their managers feel informed by their student's progress.

## Ideation #15: "How Might We" statements

How might we help our supervisory administrator more easily track their students' records of completion?

- Enable admins to change the class form status from "in progress" to "complete", which triggers a workflow to update all of the student records
- Provide admins with an admin–only page which allows them to see all of the students' records without limitations
- From the admin–only page, allow the admin to search through the records list via search box and dropdown for either student name, manager name, course code, class code, or status
- Create a data-connected spreadsheet for the admins to send to their manager containing all of the student's records



# Finding #16: Disabling/Enabling Notifications (as an admin user)

## We know/believe that:

Managers expect to have the ability to turn off email notifications for the training platform (i.e. record of completion, registration, etc.)

## This is a problem because:

There is no system currently in place to allow users to have this level of flexibility to control their communications with the training platform, which may lead to users feeling annoyed with the lack of control over their user–experience.

## Our solution should enable:

Users to have the ability to unsubscribe from site communications which should be accessible from the administrator's area. This should give users more control over their experience because the admin would be able provide that level of customization on their behalf.

## The goal/job/task:

To design a system that allows users to add their names to an unsubscribe list which provides them with the option to unsubscribe from: 1) Personal record of completion updates, 2) Subordinate record of completion updates, 3) Course updates (announcements). This system should check this list's criterion before sending any messages out in order to be respectful to each user's preferences.

## Insight #16: Problem Framing (4W Method)

Our adaptable administrator has the problem that they cannot easily enable/disable site notifications for their users (students, instructors, managers) when their users request a personalized experience. Our solution should deliver a way for the administrator to create a customized notification profile for each user, so that users feel like their boundaries are being respected.

## Ideation #16: "How Might We" statement:

How might we help our adaptable administrator create personalized notification experiences based on their users' preferences?

- Allow admins to build unique notification profiles from the admin page for individual users
- Automatically send users a record of completion when their record changes from "In Progress" to "Complete" in the records list



# **Evolution of Ideas | Low Fidelity Sketches**

## **Assignment Form**

Based on the user research, students expected a way to submit and have their assignments reviewed by their instructor. To do this, an assignment submission form was developed that accepts the student's personal information, class details, and the assignment document as an attachment. Once submitted, the form would be stored in SharePoint, the student would receive a "submission confirmation" email notification and the instructor would receive an email notification indicating that they have an assignment "pending review". After the instructor reviews and provides feedback, the form would move from "pending review" to "reviewed" state, where the student would be notified that their assignment has been "reviewed" with a link to the form. In this early draft (state 2 in the figure below), the student had the ability to edit their assignment form after submission, but this idea was later removed in order to simplify the state–change logic of the form.

*Figure 16: Assignment Submission Form – States 1–4 (left–to–right)* 



## **Announcement Form**

Based on user research, instructors expected a way to notify all of the students in their class with announcements. To do this, an announcement form was designed that would be accessible from the "Instructor Area" of the site and would automatically query the registration list for students that are registered under a given class code and would add each student to a temporary mailing list via workflow. Upon sending an announcement, each instructor's past announcements would be stored within the "Instructor Area" of the site for future reference.

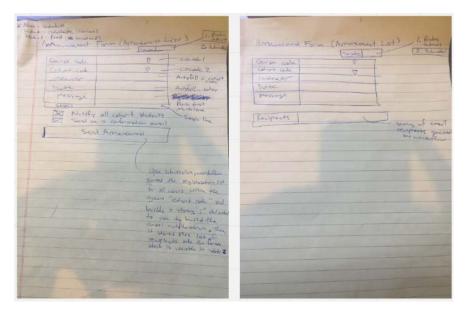


Figure 17: Announcement Form – States 1–2 (left-to-right)



## **Registration Form**

Based on user research, the students expected a way to quickly register for a class on the site and to specify their notification preferences before submitting the registration form. These notification preferences would allow the students to have control over whether or not they receive an email confirmation, a reminder when their class start date is approaching, or whether their manager is automatically notified of their successful registration. Students expected the form to remember their personal details so that they did not need to waste time filling out basic registration information and opted for a more streamlined experience. The administrator expected the registration form to only allow users to register for classes that were open for enrollment in order to control class sizes. To do this, cascading dropdown fields were implemented that would only query for classes with the "open" enrollment status, and would auto–populate the class details (start date, end date, and instructor) once the user selected a class code from the dropdown options in the form.

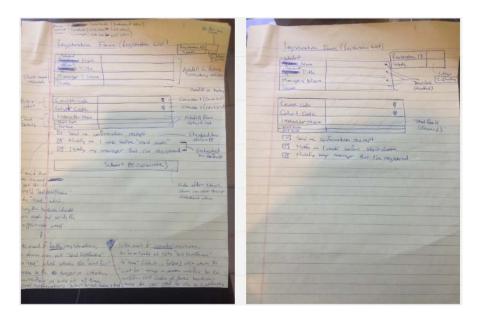


Figure 18: Registration Form – States 1–2 (left-to-right)



# **Course Form**

Based on user research, students indicated that during the research process they would often browse to see available classes, compare class schedules, and look into different instructors before deciding to go forward with registering for a course. To make it easier for students to compare classes, the course form was developed to allow for query table functionality that would provide students with the ability to perform a side—by—side comparison between each class's start date, end date, and instructor before redirecting them to the registration form in a different tab of the browser.

Remark Reserved (b) and no a wind sydding for rawk) Start - Barline (b) and no a wind sydding for rawk) Course France (Course For Education) Course France (Course For Education) Course frank Course for the second for the secon	Austan	Carrow London Carrow Carrow Ca	Corrections (Joint)
Sident (No owner)		Resolution Now Constant States	and Endber Training which forman a change's country Change's country Change all Shill its Change all Shill its Shill its Change all Change all Change all Shill its Change all Shill its Change all Shill its Change all Shill its Shill its Sh

Figure 19: Course Form – States 1–3 (left–to–right)



# **Class Form**

Based on the user research, the administrator expected a way to set up individual classes for a given course. To do this, a class form was designed so that each class would have its own unique start date, end date, and instructor that are managed from the "Admin Area" of the site. Once five students had registered for a class, the class status would automatically change from "open" to "closed" and the class code would no longer appear in the query table embedded in the course form, nor in the casecading dropdown sections of the registration form. Once the start date had passed, the class status would automatically be set to "in progress", and after the end date had passed, the class status would be set to "completed". Each of these automation preferences were designed to be optional and set by the administrator.



Figure 20: Class Form (later known as the Class Form)



# **Registration Page**

Based on the user research, the students expected a place where they could browse, search, and research a course prior to registering for a class. To do this, the registration page was designed to provide users with the ability easily navigate to each area of the site while also allowing them to type their interests into the search bar to quickly filter the results. Once a course was found, the student could learn more about upcoming classes by clicking the course code link to open the form. Alternatively, if the student already knew which course they wanted to register for ahead of time, then they could immediately jump into the registration form by clicking the "Register Now" button. Students also expected a way to contact the administrator if they had questions or challenges during the registration process, so the "Contact Us" button was implemented.

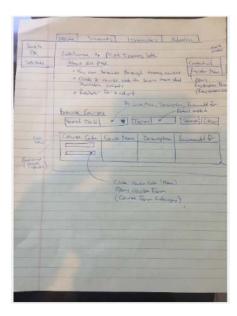


Figure 21: Registration Page



## **Administrator Area**

Based on user research, the administrator expected a way to manage each aspect of the site from one place, as well as job aids to offer them guidance, and the ability to easily contact the developer with technical difficulties. To do this, the "Administrator Area" was created to provide the users with the ability to manage course forms, class forms, registration, workflows, permissions, and notification preferences. In early versions of the page, the administrator could see every button and list Web Part with from a single view, however, this layout was simplified to reduce visual clutter and to minimize potential rendering issues. In later iterations, the list Web Parts were replaced with navigation buttons to guide the user to different areas of the site depending on what they were trying to accomplish from a centralized admin page on the site. Given that the administrator indicated that they wanted a quick way to contact the developer, a "Technical Difficulties" button was created and added to the top of the page.

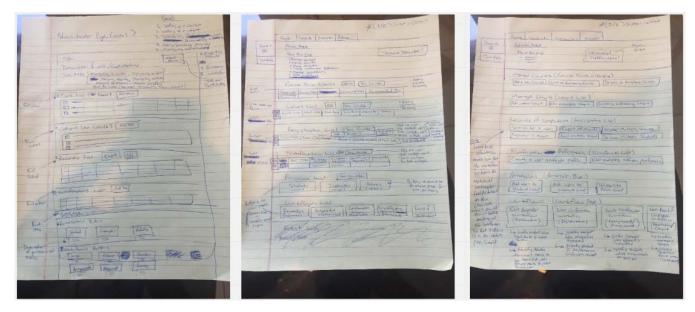


Figure 22: Administrator Page – Versions 1–3 (left–to–right)



## **Student Area**

Based on user research, the students expected to be able to register for classes, access course material, view their registration history, and submit assignments within the site. To do this, the "Student Area" was designed to provide students with a personalized user experience that would allow them to only the registration records and assignments which were relevant to them by taking advantage of the ability to filter Web Parts by user. In the early iterations (version 1–3 in the figures below) of the page, the registration functionality was included in the "Student Area", however, in later iterations (version 5–7 in the figures below) it made more sense to separate the "new students" role from the "existing students" role on the site, so that those who were browsing for courses did not become overwhelmed by functionality intended to be used by existing students, thus, registration was given its own page.

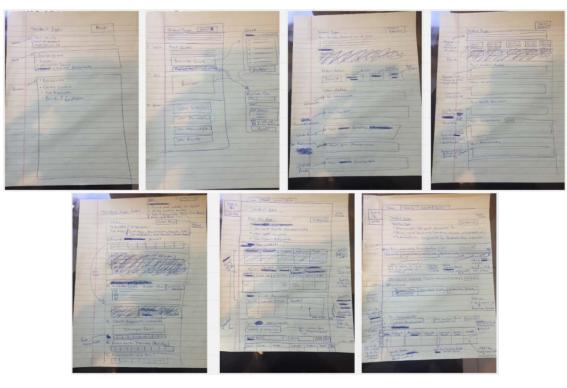


Figure 23: Student Page – Version 1–7 (left-to-right)



## **Instructor Area**

Based on user feedback, the instructors expected a way to easily see which students were registered for their classes, view their teaching schedule, upload/manage course material, review assignments, and send out announcements to students. To do this, the "Instructor Area" was designed to provide instructors with a personalized user experience by taking advantage of the ability to filter Web Parts by user. In early iterations (version 1–3 in the figure below), the page used a list Web Part layout that would provide users with visibility to each data point in the site that was relevant to them, however, in later iterations (versions 3–5 in the figure below) the layout was changed to include more navigation buttons in order to minimize potential rendering issues and to avoid overwhelming the user with options.

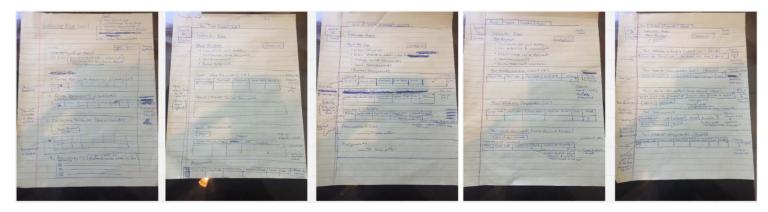


Figure 24: Instructor Page – Version 1–5 (left-to-right)



# Evolution of Ideas | High Fidelity Sketches

The following mock-ups were created using Sketch design software and were made clickable by using InVision prototyping software on the UX designer's personal 2015 MacBook Pro due to the software only running on Apple products. Given that remote testing was possible via the browser, the UX designer was able to test potential solutions with users without installing additional software onto the HONI standard laptops.

## **Administrator Area**

## Layout Iterations (changes numbered in the figures below):

- 1. The initial layout for the administrator page featured sections of each list (courses, classes, registration, and notification preferences) as well as their respective buttons. However, it was later determined that there may be performance issues that result of rendering so many items on a page at once. As a result, the lists were removed and replaced with buttons that directed the user to see only the information that was pertinent to them at the time.
- 2. The bullet points that outline the user's role at the top of the page were replaced with hyperlinks to various job aids that would assist the user with performing their role on the page.
- 3. The button-centric layout (shown in version 2) for the administrator page was determined to be overly cluttered with options that may overwhelm the user. The design was further simplified and each category of user flows (manage classes, manage courses, etc.) was given its own navigation button (as shown in version 3)



		WRIGHT Gapriel
hydro	Stelents Zathoclars Adminis	
Ecclip PhD The Alex	Registration + Admin	
@/wyons.te 11 615 m Comerc 2.	ADMINISTRATOR AREA Introduces Int	
3.	Manage Countes Afrikas Prima Balance Balance Balance Balance Balance	
	Manage Classes Aug New Class But at Pride y Loss (Multi-at Brain, Dua	
	Manage Registration Illigenalis Roy: Bit attain attains I Aligeneticationee: Tatissanalismenter Treenet Ages and Tatista. Generalis I Aligeneticationee: Tatistanautor Sciences	
	Manage Notification Preferences Onanases Batterorsay of scortants Batterorsay of scortants	
	Manager Pennikolons Jadrattadet Assummersen astromatisiden vereinen at terransen astromatisiden vereinen at terransen	
	Manager Workflows Mitterniet Ruther Int Resider Ruther Int Resider Ruther Int Resider Ruther	

						WRIGHT Gabrie
hydro	் ne					
Registration	Students	Instructors	Admins			
Back to PAC Ten Alfre	Treatra	lar + Acriin				
🖄 Sweet fas Un 🖺 of Site Concert	ADMI Instruct					
	- Hew to a - Hew to a - Hew to a - Hew to a	ten nga ora nan? ten nga shasara? ten nga shadari? ten nga shadari? ten nga parmiasiona? ten nga yarmiasiona?				
	Neviget	e using the bu	ttons below:			
		Manage Cours	es	Manage Classes	Manage Registration	
		anage Permiss	-	Manage Workflows	Manage Notifizations	

Figure 25: Administrator Area – Layout (Versions 1–3)

#### User Flow Screens (Based on layout version 3)

Rogistration	Students Instructors	Admins			
tack to nitic 250 Alds	Registration + Admin				
S Annual an Min	ADMINISTRAT	OR AREA		Technical Difficulties?	
Al Site Content	Instructions:				_
	<ul> <li>How to manage courses?</li> <li>How to manage clustes?</li> <li>How to manage student region to manage workflow and to manage permissions.</li> <li>How to manage permissions.</li> </ul>	ettentions?			
	Navigate using the bu	ttons below:			
	Manage Cours	es	Manage Classes	Monage Registration	
	Manage Permiss	ions	Manage Workflows	Manage Notifications	

					WRIGHT Gabriel +
hydro	() ne				
Registration	Students Instructors	Admins			
Back to NMC 268 ABds	Registration + Monage C	ourses			
A Recyclice No.	ADMINISTRAT	OR AREA		Technical Diffic	ulties7
Ith All Size Contacts	Instructions:				
	<ul> <li>Hew to manage counses?</li> <li>Hew to manage dasses?</li> <li>Hew to manage stated regions to manage workforms.</li> <li>Hew to manage workforms?</li> <li>Hew to manage workforms?</li> </ul>	EPE cations?			
	Navigate using the bu	ttons below:			
	Manage Cours	es	Manage Classes	Manage Regist	ration
	Manage Permiss	ions	Manage Workflows	Manage Notific	ations
			letails by clicking the "Nar g the dropdown symbol th		
	Dame Opene Name 1921 - Stand Schwell, Schwell	<ol> <li>A 2003 (Controll <ul> <li>A 2003 (Controll <li>A 2003 (Controll <li>A 2003 <li>A 2005 <li>A 2005 </li> </li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></ul> </li> </ol>	g & eperate (DELL TONS AND	en en skal fra i fre sevaran Ina Sostand Kolgers i Rok	a Darakan Dario
		A DESC OF DESC OF			

				WRIGHT Gabriel
hydro	S			
Registration	Students Instructors Admins			
lock to PAC lock to PAC	Registration + Manage Courses			
Securing Bin	ADMINISTRATOR AREA		Technical Difficulties?	i
AT 640 CONDIT	Instructions:			
	The is manage converse?     The is manage classes?     The is manage classes?     The is manage data of the intermediate set of the isomethy in the intermediate set of the isomethy intermediate set of the intermediate			
	Manage Courses	Manage Classes	Manage Registration	i
	Manage Permissions	Manage Workflows	Manage Notifications	
	Option 1: Edit an existing course's hovering over the Name and clickle			
	<ol> <li>ett (a. 1997) and (b. 1997)</li> <li>a. 1998)</li> <li>b. 1998)<td>traj Degrama, Tabla, Noba, Antij Normi Cabranj V zama Devenita na kona Damanena</td><td>ndad For – Phanasanina Danat Shanni Tayanan Sat Satan</td><td>,</td></li></ol>	traj Degrama, Tabla, Noba, Antij Normi Cabranj V zama Devenita na kona Damanena	ndad For – Phanasanina Danat Shanni Tayanan Sat Satan	,
The base and		1971 - 1998 - 1974 - 1975 - 19	encode the part of the state	



Figure 26: Administrator Area

Figure 27: Administrator Area – Manage Courses Figure 28: Administrator Area – Manage Courses - Delete a Course

4/19/2021



iyaio	ල ne					
listration	Students Inst	tructors Adm	ina			
53 MAC 146	Registration + N	torage Classes				
	ADMINIS	TRATOR AF	EA		Tech	nical Difficulties?
esting film Site Centern	Instructions:					
		a the buttons b	plow:			
		je Courses	_	lanage Classes	Man	age Registration
	Manag		м	lanage Glasses nage Workflows	_	age Registration
	Manag Nanage Option 1: Edit	je Courses Permissions	Ma Ma	nage Workflows y editing the fields in	Man	age Notifications
	Manage Manage Option 1: Edit (or )	pe Courses Permissions Lian existing cla delete by right- Sian twe	Ma Ma clicking the ro ed two	nage Workflows y editing the fields in ow) Jatuator	Man n the datashe	age Notifications et below
	Manage Manage Option 1: Edit Ottos Cele Store	Permissions Permissions t an existing cla delete by right- Sint love VIP	Ma Ma ss's details by clicking the ro station	nage Workflows y editing the fields in ow) Jakwin TREATING	Man n the datashe	age Notifications et below Autorite Materia ( a gue
	Manage Manage Option 1: Edit (or ) Class Color Store Store Store (or )	Permissions Permissions Lan existing cla delete by right- Sections With With	Mai Mai clicking the ro status status status	nage Workflows y editing the fields in ow) Jakoba Michting Michting	Man n the datashe	age Notifications et below Autorite Marcia et por
	Manage Manage Option 1: Edit (or 1 Class Coll Store Biolet Biolet Biolet	Permissions Permissions Lan existing cla delete by right- Sectors water water water	Mar Mar clicking the ro tector tector tector tector tector	rage Workflows editing the fields in own Instanting Workflight Workflight Workflight Workflight	Man n the datashe	age Notifications et below Autorite Bolar Cir (se)
	Manage Nanage Option 1: Ecit (orn Block Color Block Block Block Block Block	Permissions Permissions Lan existing cla delete by right- Section With With With With With With With With	Main Soft States	rage Workflows y editing the fields in ow) Jakudar monations monations monations	Man n the datashe Salva Oan Char Inframa Corposi	et below Assemble Mitric Gill gas
	Manage Manage Option 1: Edit (or ) Class Cole Stront Stron	Permissions Lan existing cla delete by right- Site toue water water water water water water water	Mar Iss's details by citcking the ro e dow secon secon secon secon secon secon	rage Workflows y editing the fields in period and the fields of the field monotones, and the field of the field period and the field of the field of the field period and the field of the	Man n the datashe Salos Oan Gas Infransi Cressal Oan	An and Fications etc. below Anamile Hotel of the State of
	Manage Nanage Option 1: Ecit (orn Block Color Block Block Block Block Block	Permissions Permissions Lan existing cla delete by right- state two wyter system system system system system system system	Mar Mar clicking the ro status	rage Workflows editing the fields in web advantages bootstres bootstres bootstres bootstres bootstres bootstres bootstres bootstres	Man n the datashe Sulva Oan Corposi	et below Assemble Mitric Gill gas
	Manage Nanage Option 1: Ecil (or of Constant Align A	Permissions Lan existing cla delete by right- Site toue water water water water water water water	Mar Iss's details by citcking the ro e dow secon secon secon secon secon secon	rage Workflows y editing the fields in period and the fields of the field monotones, and the field of the field period and the field of the field of the field period and the field of the	Man n the datashe Salos Oan Gast Infranse Core real Oan	et beforetons et below Anomine MARcold parts

hydro	ဖြ ne							
ogistration	Students	Instructors	Admins					
ik to FBC	Registral	lion + Manage C	lasses					
Securing Die 11 Site Crement	ADM1	hnical Difficulties?						
	- How to n How to n How to n How to n How to n	nanage courses? nanage dasses? nanage student regt nanage sociation is nanage parmissions nanage sociations?	Withcallions7	<b>87</b>				
	Navigat	e using the bu	ittans belo	#:		_		_
		Manage Cours	ics	М	anage Classes	Mar	nage Registration	
	_	Manage Cours anage Permiss	_	_	anage Classes nage Workflows		nage Registration	i
	м	anage Permiss	sions sting class?	Ma s details by	nage Workflows rediting the fields i	Mar	nage Notifications	
	м	anage Permise 1: Edit an exis (or delete b	sions sting class?	Ma s details by	nage Workflows rediting the fields i	Mar	age Notifications set below Awards Subs Chry	a
	Dption	anage Permiss 1: Edit an exis (or delete b over the total	sions sting class? sy right-clic tute	Ma s details by king the m mit bac biotra	nage Workflows rediting the fields i w) http://www.	Mar n the datashe	age Notifications eet below Access, suites Clarg	
	M Option	anage Permiss 1: Edit an exis (or delete b tote stat	sions sting class's sy right-clic	Ma s details by king the ro to two to and to and to and to and	nage Workflows (editing the fields i w) http://df.mc projections	Mar n the datashe	age Notifications eet below Accords Scills Charg The The	
	M Option	anage Permiss (or delete b tote State tote State	sions sting classs by right-clic	Ma details by king the ro to that to anti- to anti- to anti- to anti-	editing the fields i w) Microsoft Transform Transform Transform Transform	Mar n the datashe Salas Car Salas Salas	age Notifications set below Accords, suites Clarg To To To	a
	Diption	anage Permiss 1: Edit an exis (or delete b over Steri to any to any to any to any to any	sions sting class's by right-clic	Ma s details by king the m twitte same same same same	nage Workflows (editing the fields i w) http://df.mc projections	Mar n the datashe	age Notifications eet below Asserts subscharg To To To To To To To To To To To To To	
	Pl Option	anage Permiss (or delete b core start core start core core core core core core core core	sting classs by right-clip to the right ri	Ma s details by king the ro butto bu	nage Workflows rediting the fields i ww) http://www. protostrans protostrans protostrans protostrans protostrans	Mar n the datashe Car Gar S mana Garjina Gar	age Notifications et below Assemble status Chang The The The The The The The The The The	
	Diption	anage Permiss (or delete b core ster core ster core ster core core core core core core core co	tions ting classs by right-clic totae m m m m m m m m m m m m m m m m m m m	Ma s details by king the ro butto bu	nage Workflows rediting the fields i with the fields in the fields in the field of the field of the field of the field of the the field of the field of the of the field of the field of the field of the of the field of the field of the field of the of the field of the field of the field of the of the field of the field of the field of the field of the of the field of the field of the field of the field of the of the field of the field of the field of the field of the of the field of the of the field of the fie	Nar n the datashe Safas Cor Origina Corport Cor Origina Cor	age Notifications eet below Asserts subscharg To To To To To To To To To To To To To	a 
	Diplion	anage Permiss (or delete b or delete b or delete b or so control contr	sions sting classs yr right-clic so so so so so	Ma s details by king the ro butto bu	nage Workflows rediting the fields i ww) http://www. protostrans protostrans protostrans protostrans protostrans	Mar n the datashe Car Gar S mana Garjina Gar	Anape Notifications tel. below Anorriski Subsc Charg The The the the the the the the the t	

hydro	() One					WFdGHT Gabr			
gistration	Students Inst	nuctors Adar	nins						
k to PBC	Registration + M	anage Classes							
Recycling Fire	ADMINISTRATOR AREA Technical Difficulties?								
AL Sta Content	Instructions:								
	<ul> <li>How to manage of</li> </ul>	asses? sident registration o origiour collications orminations?	esards? i2						
	Navigate using	the buttons b	elow:						
	Manag	e Courses	м	anage Classes	Man	age Registration			
	Manage	Permissions	Ma	Manage Workflows Manage Notifications					
	Option 1: Edit	an existing cla delete by right	ass's details by -clicking the ro	editing the fields i	n the datashe	et below			
		Shart July	DR. BADE	Internation	264.05	Aite at Sides thorpes			
	<ul> <li>Class Code</li> </ul>		104/001	57. CH0795 16.FP	Ce a	Yn			
	Class Code 1979-0	49731				Yes			
	Class Code 1979-Ci 1979-Ci	49-219	64.902.	07. CHE200 YEAR					
	Class Code Gales Gales Gales Gales	49719 49719 99719	6-14/300. 0-14/300.	07. CH2200 W.W	2: 1531.00	Ve			
	Class Code 1979 C. 1979 C. 1979 C. 1979 C. 1979 C.	499201 409201 409201 1073001	64,4985, 64,4985, 12,4985,	01.06200 %.W	3: https://	Ver Ver			
	Class Code 1929-6 1929-6 1929-6 1929-6 1929-6 1929-6 1929-6 1929-6	494201 494201 994201 1953201 594200	604900. 004900. 1204900. 2004900.	57. CR255 Were 57. CR255 Were F2C4 CR148	3: Yeapine Coroleac Can	Via Via Via			
	Class Code 1620-51 1620-52 1620-52 1620-52 1620-52 1620-52 1620-52	40-211 40-211 90-211 10-211 50-210 50-210 40-210	654985. 654985. 1254955. 2554955. 654955.	57, CHI200 YANY 57, CHI200 YANY F20X CHI200 YANY F20X CHI200 CHI200 YAN DEK CHAR Jamp	2i Yepsan Corolead Cpan Csad	10 10 10			
	Carro Conju     Control     contro     control     control     control     control	49719 49719 97799 97799 57790 67790 87790	ellenet ellenet internet internet ellenet ellenet ellenet	07. CRUDDO NAM DT. CRUDDO NAM FOLK CRUDDO NAM FOLK CRUDAR CAMP FOLK CRUDAR	31 Yespisa Constanc Cons Cons Cons I negres	Via Via Via			
	Stars Co.A     Salat     Salat	49-299 49-299 49-299 59-299 49-299 49-299 49-299 10-4992	Codesco Codesc	57, CHLDDS WAY 57, CHLDDS WAY F2CK CHLDDS WAY F2CK CHLDS CHLDHAP	2i Yepsan Corolead Cpan Csad	Via Via Via Via Via Via Via Via Via Via			

Figure 29: Administrator Area – Manage Classes

## Figure 30: Administrator Area – Manage Classes – Edit a Class



Registration	Students Instructors Admins		
ock to PBC ob Ales	Registration + Manage Registration		
Service for	ADMINISTRATOR AREA		Technical Difficulties?
41 Ste Crecert	Instructions:		
	How to manage courses?     How to manage dasses?     How to manage dasses?     How to manage solution regulations records?     How to manage solutions and/fieldians?     How to manage solutions and?     How to manage solutions and?		
	Navigate using the buttons below	1	
	Manage Courses	Manage Classes	Manage Registration
	Manage Permissions	Nanage Workflows	Manage Notifications
	Choose an option below:		
	Register A User	Register Multiple Users	Scarch Repords

## Figure 31: Administrator Area – Manage Classes – Delete a Class (1)

								W	RIGHT Gabriel
nydrg	் ne								
istration	Students Int	structors	Admins						
to PBC Vite	Registration +	Register Nulti	pie Usora						
rading Pie	ADMINIS	TRATOR	AREA				Technical Dif	ficulties?	
Sta Content	<ul> <li>Instructions:</li> <li>How to manage</li> </ul>	courses? classes? student registrat variation antifico permissions?							
	Navigate usi	ng the butto	ns below:						
	Mana	ige Courses		Manage Classes Manage Registration			istration		
	Manage	Manage Permissions			Manage Workflows Manage Notifications				
	Choose an o	ption below:							
	Regis	Register A User Register Multiple Users Soarch Records							
	<ol> <li>Begin entering in Chickse your roll</li> </ol>	tion of the details of Visionality in the op Reality preference	t brick a beginning with the city setting the ratio with og the hole. "De	the set links a car	- Nativy States	r, "to by Paraga	5 or "Particul Disale	nt "y tas " liber	
	<ul> <li>Rudenthame</li> </ul>	Hanagerikame	Registration Date	Zourse Code	Class Cone	Wally Statest	Lotity Panager	Rem mi Student	Send Kar Kinkber
	Anthen to as 4	INCOME REPORT	10107278	×7711	17711-01	31	9.1	3.4	4.

## Figure 32: Administrator Area – Manage Classes – Delete a Class (2)

									RIGHT Gabriel
hydro	G								
	ine								
Registration	Students I	nstructors	Admina						
LOCID MAC									
et Alfs	registration	Registration + Register Multiple Users							
	ADMIN	STRATOR	ADEA						
Regarding Time	ADMIN	STRATOR	AREA				Technical Dif	ficulties?	
ATS to Covern	Instruction	s:							
	- How to mana-	e courses?							
	- Herey for manage	pe classes? pe student registrei pe workflass notific	los recorda?						
	- Here to manage - Here to manage - Here to manage	an parentantern 7	1 Ionar						
	- How to mana	te worktowa?							
	Navigate u	sing the butto	ns below:						
	Mor	age Courses		Manage	Classes		Manage Reg	istration	
	Mana	ge Permission	s (	Manage Workflows			Manage Noti	)	
	Choose an	option below:							
						_			
	Rot	pistor A Usor	- F	legister Mu	Itiple User	9	Search Ro	cords	
	<ol> <li>Secial entreting</li> <li>Ormore your in</li> </ol>	Hutticle Unorth officer of the pactation ( intermation in the tr officer of protocold in the officer of the state	when the part of the second seco	institute frends (Las	. "Notike Disales In "Not	S. Bolly House	r, ar "Renital Siace	ett) to Med	
	B Shiser Tea	Nonsgre Verse	Registration Late	Gaurse Code	Class Code	hat ty Rideet	Triffy Neorger	Remind Roadent	Send Notifications
	MICHAN	2010/01/2011 01:00	10 B(R.0.)	HPRI	HTG1 T	A.;	71.	- M-1	V.
	Management	MERINES ALCOHOLD	201010	- NP	NO.10	A.,	11	A.	Y
	S and the	1028-1025-02-14 A # 7	94.00	1.8/3	19412	A .	31	ň.	N+
	A ********	VERMIN ADDRESS	9.631.	1011	H1111	45	31	41 -	Fi 1
	B MAN LAW	VERMIS ADDRESS	10 T. 3 10"			20	34	(1)	Fit 1

## Figure 33: Administrator Area – Manage Registration

hydro	G							N	RIGHT Gabriel		
nyar	one										
Registration	Students In	atructora	Admins								
lock to FILC lob Arcs	Registration a	Register Main	plo Usons								
& large ing the	ADMINI	STRATOR	AREA				lechnical Diff	ficulties?			
§ 41.5 to Crecord	Instructions										
	How to manage	e classed? e student registral e societiour notific e permissione?	lion records? attons?								
	Navigate us	ing the butto	ns below:								
	Man	Manage Courses			Manage Classes Manage Registration						
	Manag	e Permission	6	Manage V	Yorkflows	Manage Notifications					
	Choose an option below:										
	Reg	ister A User	E F	legister Nu	Itiple User	น	Scarch Ro	cords			
	<ol> <li>Statistics for the brill State of the</li></ol>	Harris Nagato Haldo Lon. 1997 - Marcin Mandella, Marcin Marcin, Marcin Marcin, Jan Marcin, Jack Harris, Tatala Hanapat, Grillman Baland (1), 5-164 2. A lan article Antonio Martino Parality, and the structure of the Marcin Marcin, Statist Hanapat, Grillman Baland (1), 5-164 2. A lan article Antonio Marcin Parality, and the structure of the Marcin Marcin.									
	B R den Lam	Varager Rame	Registret on Filme	Co. ren Code	C MIS Coce	Notty Student	Notify Parager	Innin: Supert	Send Tot Bretlines		
	WHERE COMPANY	Receiption of the	100201	1.414	1000	315	W-	31	*:		
	WHERE A LOUGH	Karolanta wa aki	542411	39.0	38.6.11	No.	w	30	×		
	<ul> <li>A second count</li> </ul>	Exception of the last	2102413		PH IS	315	÷.	31	×.		
	4	KEDER DAY HER K	218241	411	447-81	hes.	w.	35	10.5		
	A DECEMBER OF SHEET		210-263								

Figure 34: Administrator Area – Manage Registration – Register Multiple Users (1)

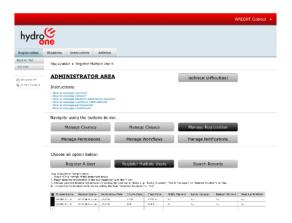


Figure 35: Administrator Area – Manage Registration – Register Multiple Users (2)



## Figure 36: Administrator Area – Manage Registration – Register Multiple Users (3)



Figure 37: Administrator Area – Manage Registration – Delete Multiple Users (1)

							WRIGHT Gabriel
hydro	ဖြ ne						
Registration	Students	Instructors	Admins				
ed: to NSC 10-7101	Registrati	ion + Scorch Re	cords				
Recycling Vin	ADMI	NISTRAT	OR AREA		ъ	echnical Difficultie	es?
	- How to m - How to m - How to m - How to m	anage courses? anage classes? anage abudent regi anage workflow ar anage workflows? anage workflows?	d Hispitics at				
	Navigati						
		Manage Cours	es	Manage Classes		lanage Registrati	un
	Ma	anage Permiss	ions	Manage Workflows Manage Notifications			ns
	Choose	an option bel	ow:				
		Register A Us	Re	agister Multiple Use	rs	Search Records	
	Finite Outer	941	in Stopet New	· Diens Cart	Cents		
	72	Stadard Name HENES Croke HENES Croke	Managar Karna 5-400 Faitgearer 5-400 Faitgearer 5-400 Faitgearer	Hag shakes 244 24201 24201 24201 24201	Liarse Gele HSC. 1911	Class Colle 1750 C. 296 C. Factori	Shalan Brol al Conglese Brol al
	202	NUMBER VAN ANTONIS I I I NUMERAN ANTONIS	terretari e de la construir Ben de Santa de la construir Santa de Canada de Santa de Canada de	19600 19600 19600 19600	NU NU NU	298-25 298-35 298-35 298-35	Orgina Orgina Notes Orgina
		ACOR 1994	201 C ++ 1 ++	177310 177310		4471-08 1607-08	Print of all

0056 80.0	otion below:							
	ator A Usor		legister Mu	Itiple User	5	Search Ro	cords	
to Register H.J	Histo Userso							
coll to the bolt sola estering in	bernarian in the ra-	to beginning with the	- Iron		. Ballin Meneration	an Theories I Disco	at the local	
entil to the bolk entil entering in more your notif	ternation in the to	et neissa sa besine ing utifa niye a by self ing internet in sectory, ner read the	ballon fields (Le.	"Notile Disales In "Nec	C. Noty Honope	, or "Remind State	nit) to "Net"	
eals ented to in These year tooli	ternation in the to	a beginning with the site relation the root is	ballon fields (Le.	"Not in Chules In "Not Over Code	hat ty Roden	, er "Remind Since Willie Namgar	nti) to "we" Rectind Student	Send NetWorkows
erni bi He bolk esin erbeding in races your noti rische die notir i Shuterit Tenne	ont of the careshee formation in the re- rised on preference tasker workflow by	sy beginning with the sity setting the real to setting the real file	tadion fielde (Le. 19 Nobrigational	la ' Thai				Send NrtHistoises
eral to the both solar extending in rische your notif rische dur notif rische dur notif Studiert Reme Witterformen Witterformen	Nanagar Variat	A belowing with the site setting the root is belong the field the Registration facts	Course Code	Cherr Code	hat fy Rudeet	Tallis Neorgee	Remind Rudent	
eral be He belle sola erbedraj in races your roll ribble die roll r Shutent Tease without as	on of the random better in the to the of the polymeria and the polymeria Nonsyne Wear Weiner and the	A becing with the sity setting the roll the sampling the roll the Registration fate to got	Caurse Code Jerrice	Cherr Code arrait to	hat ty Rodent	Tollis Nonger	Remind Student	¥+.

P	lanage Permissio	ns M	Manage Workflows Manage Notifications			ions
Choose	e an option below	r:				
	Register A User	Reg	ister Multiple User	5	Search Record	ts 🛛
Enir		in : Subel tare	· Geerts Deer	Dave.		
144	Guident Ramon	Manager Name	Registration Outo	Course Links	Chass Loda	Mar. un
12	147-65 Chuld	STRY & Foright met	8-018	10231	HTSU IL	E114ct
C.	HELES COULD	CONTRACTOR INDUSTRIA	\$94CT28	1714	27. 31	CL 9 E TA S
. e	HERE COULD	000786 Satisfame:	A0477.81	(FE)	1.501 21.	Product.
2	ABOR 5 AM	MOSSING STRAT	20.778	*294	APP: OR	0. spinel
6	10.48 (an or	W 0.0.0.0	101.010	1911	17910 11	
122	ALC: UNK	W 64.84	21.21.01	NT1	PAG P	Region
œ	ACCRETING V		2.008	A 40-1	NP 22-4-0	P 8 -
1.0	41.42.141.0	A. 68.88	25.01.0		148940	10 mg - 10

Figure 38: Administrator Area – Manage Registration – Delete Multiple Users (2) Figure 39: Administrator Area – Manage Registration – Search Records (1) Figure 40: Administrator Area – Manage Registration – Search Records (2)

4/19/2021

User Experience Design Report P&C Training Site Page 55 of 112



hydro<sup>©</sup>ne

👌 Respiring Tax T<sub>2</sub> 41 Site Concern ADMINISTRATOR AREA

sing the butt

Notification N.X.Fr St.S. Week alloy

> I St Derkene Ger I voortober He I Hometry of He

Step 3: If no profile exists, then create a

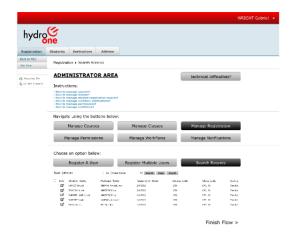


Figure 41: Administrator Area – Manage

Registration – Search Records (3)

Manage Courses Manage Classes Manage Registration

· Stark its

.

Create Notification Profile

Notification 3: Notification 3: Notification are 5 police to 10 Notification 3: Notification are signification when it is slace explored for a class total its if the 10 2011 has completed that represented for a class below as setting in property detector.

Manage Permissions Manage Workflows

Notifies the statement of the statement

Technical Difficulties?

nationalise with the instructions I manufacture of the classe of

				WRIGHT Gabriel 👻
hydro	(C) ine			
Registration	Students Instructors Admins			
Back to FBC Job Ales	Registration + Manage Pormissions			
🖄 Serycling Din 🎼 Al Ster Criment	ADMINISTRATOR ARE	A	Technical Difficulties?	
	How to manage courses?     How to manage courses?     How to manage courses?     How to manage statement regulateration remark     How to manage score/face notifications?     How to manage score/face notifications?     How to manage score/faces?	147		
	Navigate using the buttons below	w:		
	Manage Courses	Manage Classes	Manage Registration	
	Manage Permissions	Manage Workflows	Manage Notifications	l .
	Choose an option below:			
	Add/Remove a Student	Add/Remove an Instructor	Add/Remove an Administrator	
	Studio residenti « Registrato i francesa « Vivao Missi con presidenti « Vivo Missi con presidenti « Vivo Missi con presidenti « SubmityPresidenti Missi assessmenta	Destri, claim conc - Maise Bholt Instanting scheduler - Maise Bholt Instanting scheduler - Mars Bholt Instantion - Dermond Test Instantion mathematic - Seriel Carl American Scheduler, Scheduler Marshall Viel Scheduler, Scheduler - Scheduler Viel Scheduler, Scheduler - S	Administration of some - Networks - Counters - Networks - Counters - Networks - Networks - Networks - Networks - Networks - Networks - Networks - Networks - Networks	

			WOTCH	T Gabrie
hydro	(C) ine		WRIGH	T Gabriel
Registration	Students Instructors Admin			
Back to PBC Jso Alds	Registration + Manage Workflows			
🕼 Averation File 🛍 Al Sta Content	ADMINISTRATOR ARE	A	Technical Difficulties?	
	How to manage courses?     How to manage classes?     How to manage classes?     How to manage variation methods in verse     How to manage variation methods in the real of the manage variations?     How to manage variations?	nik?		
	Navigate using the buttons bei	ow:		
	Manage Courses	Manage Classes	Manage Registration	
	Manage Permissions	Manage Workflows	Manage Notifications	
	Choose an option below:			
	Edit Registration 1	Edit Registration 2	Edit Registration 3	
	Not'y statistic der Uner dies start date sit work dety	Nextly the administrator when 6 applicants have registered for a class and its time to start booking cost one in propiet's colored to	to by the classic/memory class the classic has concluded that regulation for a class	
	Edit Registration 4	Edit Assignment 1	Edit Announcement 1	
	No. for the academic management of readed of construction when a does a completed and parameter cally updated the date status to recompleted.	Notifica that related on when an assignment is submitted by one of their students for review and not fice the student when the instructor has provided feedback.	Validates the statistic with the industries a component of manage to the class of scalars.	

## Figure 42: Administrator Area – Manage Permissions

# MODIFY Cabrie Modern Moder

## Figure 43: Administrator Area – Manage Workflows

						WRIGHT Gabriel 🔸
hydro	(C) ne					
Registration	Students	Instructors	Admins			
Back to PBC Joo Alst	Registrat	ion + Site Site	ings + People and Gre	ups - P&C Instructors		
🖨 Record no. Pir 🖺 Al. Star Context		Actions + ad Users ad users to the grou	Sottings +	And the	The Now discusse - Engineering	Providence PLANTERS
			• MOREN A source		Managar, Breest next Planeing	PLAYING
			<ul> <li>FOREF score</li> </ul>		Serier PSC Birgineer Bookster	POWIERS

## Figure 44: Administrator Area – Manage Notifications

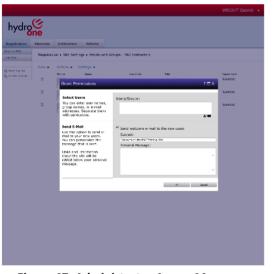


Figure 47: Administrator Area – Manage Permissions – Add Instructor (3)

						WRIGHT Gabriel 👻
hydro	ဖြ ne					
Registration	Students	Instructe	era Admina			
Book to PSIC 200 AV6	Registra	lian + Sitz S	errings + People and Gro	aps - PBC Instructors		
	New +	Actions +	Settings +			
🗞 Respiring Dat T <sub>R</sub> All Site Coveran	×	an re	Network Control (Control)	Also hitte	Title New Greduate - Engineering	September 1 NANANG
			<ul> <li>DECEDIN Alexander</li> </ul>		Honopol Investment Ren 1.9	HARNENG
			<ul> <li>HODOBY Stoke</li> </ul>		Son o PBC Engineer Specialist	"LANKING

Figure 45: Administrator Area – Manage Permissions – Add Instructor (1)

								WRIGHT Gabriel 👻
hydro	் ne							
Registration	Students	Instructors	Admins					
Bock to FBC Job Area	Registrati	in + Site Settie	gs + People an	s Grou	as - PAC Instructors			
A Security for	tien +	Actions + S Brue	rttings +		abrie -e	TER		Levennere
		Grant Per	nissions				7 <b>=</b> X	RANNING
	•	Select Us	176	I.	Jsers/Groups:			RUNNING
	•	You can en group nam addresses.	ter user names es, or e-mail Separate them		FILES Oyear			RANNING
		with semic	otons.				2/11	
		mail to you	tion to send a- r new users, rsonalize the pat is sent.		Send welcome e-mai Selbect: Debote to the FAC Toint Personal Hensage:			
		edded belo message.	w your persona	1			Ű	
						Ų4.	Canad	

Figure 48: Administrator Area – Manage Permissions – Add Instructor (4)

				WRIGHT Gabriel 👻					
் ne									
Students	Instructors Admins								
Registrati	Registration + Site Settings + Propie and Groups - NAC Instructor								
New +	Actions - Settings -								
×	Email Users bend as small to serviced users.	Abrie me	Title New Groduate - Briginder ng	Reportment RUNNING					
	Call/Hessage Selected Users Callier elected sers.		Nanagas, Investment Panning	RANNING					
	Remove Users from Group Remove solution were from the Sharefore proces	1	Serier P65 Biginetr Spockilist	ILAN ING					
	Registration	Bissioners         Instructions         Admins           Pargiuration = Nato Settings =          Teopic and closures           Idea         Antonic =          Settings =            Idea         Antonic =          Settings =	Bitsdords         Testingtons         Advance           Paughtables a Site historing a length radii Grosses - NCC transporter         NCC refrequence           Paughtables a Site historing a length radii Grosses - NCC transporter         John registration           Paughtables         Site and an end at an en	Detectors         Interview         Admin           Pupidration + Setters a - tength and Genuss - FACL Interview					

## Figure 46: Administrator Area – Manage Permissions – Add Instructor (2)



Figure 49: Administrator Area – Manage Permissions – Add Instructor (5)

						WRIGHT Gabriel
hydrg	(C) one					
Rogistration	Students	Instructors	Admins			
Rack to Plac Jack Hol Plac	Registrat	lion + Site Sch	tings + Feople and Grou	ps - P&C Students		
	New -	Actions +	Settings +			
A station for		Peture	WACHT Gabrel	Abort the	The New Gracuote - Engineeing	Peop france PLAYTON
			MOREON A GLOBAR		Managar, Brivest Hent Plane to	PLAYODS
			<ul> <li>FOOLER Score</li> </ul>		Senta 160 Engineer Specialist	PUMIERS

Figure 50: Administrator Area – Manage Permissions – Remove Instructor (1) Figure 51: Administrator Area – Manage Permissions – Remove Instructor (2) Figure 52: Administrator Area – Manage Permissions – Add Student (1)

4/19/2021

User Experience Design Report P&C Training Site Page 56 of 112



						WRIGHT Gabriel 💌
hydro	ဖြ ne					
Registration	Students	Instructors	Admina			
Book to P&C Job Aves	Registrat	ian 🕨 Sitz Sotting	p + People and G	iroups - PBC Students		
egi Despring Da Fili 41.5 te devene	New  Actions  Settings  Add Users Add Users Add users to the group			ins time	THe New Graduate - Engineering	Septement NAMENG
			JACIBON Alexander		Honopa; Investment Roming	164MEHG
	-	P	<ul> <li>HODOBUSERE</li> </ul>		fon el PBC ingi ecróposalat	"Lancho

hydro	ି ne					
ogistration	Students	Instructor	a Admina			
ck to FBC 6 Arcs	Registrat	ion + Sito Se	ttings + People and 4	Smans - PAC Students		
Securing Dis	Hew +	Actions +	Settings +	about the	TTo	Deservation
11 3 10 7 10 10 10		Count	Names land on the			PLANING 2
			Permissions			PLANING
		group n address	Users onter user names, ames, or e-mail as. Separate them micolons.	Users/Groups:		POWING
		mail to You can	-Mail option to send a- your new users. personalize the e that is sent.	Send welcome ever Subject: Jackners the FMT The Personal Message:	inin; Ste	- 10
		about th	nd information ne site will be relow your personal e.			0
		_			Ų6.	Canad

Figure 54: Administrator Area – Manage Permissions – Add Student (3)

Figure 53: Administrator Area – Manage Permissions – Add Student (2)



 Notice
 Administration
 Administration
 Administration

 Statistical in a functional in a functinal in a functional in a functional in a functional i



Figure 55: Administrator Area – Manage Permissions – Add Student (4)

					WRIGHT Gabriel 🔹
hydro	ဖြ ne				
Registration	Students I	astructors Admins			
Back to PBC Joo Alds	Registration	<ul> <li>Site Settings + People and Groups</li> </ul>	- P&C Shidorta		
	New - A	tions - Settings -			
🖧 Beryal na Fir 🛍 Al Sta Contect	×	Email Users deni or uner to whethel overs	About the	The New Gracuate - Engineering	Peop Intern PLAYIDIS
		Call /Message Selected Upera Set the valuetes serve		Managas, Brivess next Planeing	POWHERS
		Remove Users from Group ser overseladed asses from this shar the net group		Serior P6C Brance Bookline	PLANNING
	- r	1			

Figure 56: Administrator Area – Manage Permissions – Add Student (5)

					WRIGHT Gabriel 👻
hydro	ဖြ ne				
Registration	Students	Instructors Admins			
Beer to Mic 28 Ave	Registrat	ian + Sitz Serrings + People and Group	ps - P&C Administrati	378	
A fear ing the	New +	Actions - Settings -			
E GLER COURT	×	Email Users Nerr an email to satisfied evens.	ios time	THE New Greduese - Engineering	Tapartine 1
		Call/Message Selected Users Call the effected users		Honopor, Investment Renning	WARNENG
		Remove Users from Group Dance execute and for the Share and group.		for o PNC ling) for fipolalist	SAMONG

Figure 57: Administrator Area – Manage Permissions – Remove Student (1)

						WRIGHT Gabriel 👻							
hydro	G												
	ne												
Registration	Students	Instructo	rs Admins										
Back to FMC					-								
Job Ales	Pergistra	Registration + Site Settings + Prople and Groups - PAC Administrations											
	New -	Actions +	Settings +										
🖧 largeing fin		Bran	Teme	about the	7.84	En minere							
IL ALS RECEIVER			WEODET-DISING		New Groduate - Engineering	RANNING							
			<ul> <li>DACKEON Alcound or</li> </ul>		Nonogos, Invostment Planning	RANNING							
		M											
			<ul> <li>RODDEX Stove</li> </ul>		Serier POC Biginetr Spockel st	RANNING							
		-											

## Figure 58: Administrator Area – Manage Permissions – Remove Student (2)

						WRIGHT Gabriel 👻
hydro	ဖြ ne					
Registration	Students	Instructor	Admins			
Back to 760 Joo Alfit	Registra	ition + Site Sci	tings + People and Gre	wps - P&C Administrate	a	
	New -	Actions +	Settings +			
🕼 hersel en Fir 📓 Al Sta Contect	Add Users Add cars to Usegroup.		nuşi.	About the	The e New Gracease - Engineering	Department PLANNERS
			• MOREON A case of		Manager, Brivest Hent Planeing	P.MIRIS
			• FOOLER SLOW		Seria 166 Erginan Basalas	PANIES

Figure 59: Administrator Area – Manage Permissions – Remove Administrator (2)



## Figure 60: Administrator Area – Manage Permissions – Add Administrator (1)



## Figure 61: Administrator Area – Manage Permissions – Add Administrator (2)



See the content of the content of the content of the content were the content were the content of the content o	<sup>14</sup> Send velocities e-mail to the new usans Solution: Upon-e-minute 7 metrics to Period at Newsge:
	94 Danal

Figure 62: Administrator Area – Manage Permissions – Add Administrator (3)

Send E-Hail Use this option to send z- result to your new sense, You can personalize the resumption of the sense. Using and information about the site will be added below your personal message.	Sind velocity error to the new dars Si bits Si bits Si bits Ressays Ressays	
	Uk. Catal	

Figure 63: Administrator Area – Manage Permissions – Add Administrator (4)

	Send E-Hail Use this option to send e- mail to your new users. You can primarative the message that is sent. Links and information about the site will be addeb bidow your personal message.	*	Send advances e-mail to the new users Solveid (anome to re Ad Alano fra Henrinal Message)	
			LW. Garsa	l l

Figure 64: Administrator Area – Manage Permissions – Add Administrator (5)

4/19/2021

User Experience Design Report P&C Training Site Page 57 of 112





Figure 65: Administrator Area – Manage Permissions – Remove Administrator (1)

4/19/2021

Page 58 of 112



## **Registration Page**

## Layout Iterations (changes numbered in the figures below):

- 1. The "Name" field was moved to the right-hand side of the list because it provides the user with the least amount of information when they are researching a course.
- 2. The search bar's dropdown default value was changed from "Name" to "Description" so that users can easily search for what they want based on the course contents.
- 3. Additional fields were added for "Prerequisites", "Duration", and "Available Classes" to the right-hand side of the course list, in order to provide more information on each course.
- 4. The "About this page" text was edited to be more concise and to make it more obvious to users that they can immediately register for classes.

				WRIGHT Gabriel 🔹							WRIGHT G	abriel +							WRIGHT G	abriel 👻
hydro	Sone Sone				hydro	() ne	uctors Admins						hydro	ne Students Instr	uctors Atlmins					
Registration Back to PAC		dmins			Registration Back to PBC								Back to PSC	Registration + He	me					_
Juo Attle	Registration + Homn				Job Alos	Registration • H	ome						Job Aves	-			_			
C Recording Sin	WELCOME TO THE	P&C TRAINING SITE		Contact Us	a way to a	WELCOME	TO THE P&C TRAININ	G SITE	_	Contact	t Us		A housing the		TO THE P&C TRAININ	<u>G SITE</u>	- 1	Contact	Us	
I Al Size On Acar.	About This Page:				fight the cartest	About This Pag	ie: able courses or search for which you want						fij Al Ste Conard	About This Pag It was through avail	able courses or second for what you went			Register	New	
	<ul> <li>Browsh through evaluate a countes an sy Ottack for available classes by closing Register for upstaning classes by close</li> </ul>	sech for after you were the name (ourst care) in the course list below ng the turken is the night only cloking the link in:		Register Now			tases by dicking the name (course code) in the datase by dicking the batter to the right of by	course list below of eleking the link in the actuate	(em	Register	TROW.			<ul> <li>Check fair ovaliable of Rogister for upcarries</li> </ul>	asses by clicking the link in the "Name" field in t a classes by clicking the "Register New" butten	ic list licks				
	Browse Courses 2.					Browse Course	y .							Browse Course		Sec. 1. 100				
	Enit	al Anna 🔹 Barthi Baat	3.			Tied		search (Joa						Course Name	int Description · · ·	Accommended For	Protecuisites	Suntar	Available Classes	Name
	Name Non Name Name Name Name Name Name Name Name	Description 1. Hoto Concerns of Learning Tech. Total Jan 2. Hoto Concerns of Learning Tech. Total Jan 2. Hoto Concerns of Tech. Jan 3. Hoto Concerns of Tech. Jan 3. Software Concerns of Tech. Jan 4. Software Concerns of Tech. Jan 5. Software Concerns of	Recommended For Res Block record Internet			11 Course Nom2	Decidity of 1 - 14 - 14 - 14 - 14 - 14 - 14 - 14 -	Roomshould For Health - Park of Parks	Prortig, ISRCS NO		Aveliatic Classes Cold Laboration of the	32880 1000		In The Address	Constraint Constr	Walking Social of Despine	64	2000	110100000	1803
	HTSER Hos Tea	<ol> <li>Non Direct and a fight from - Non Direct and Annual Annual Annual Annual Annual - Provide Annual Annual Annual Annual Annual Annual - Annual Annual Annual Annual Annual Annual - Provide Annual Annua</li></ol>	Novici na, Samena Carignan			No th	<ol> <li>Banda and Angelows,</li> <li>Banda and Shine Anton.</li> <li>Banda and Shine Anton.</li> <li>For open for other single demonstrate three softwares.</li> <li>Manual Antonia and an antonia antonia</li></ol>	No. 8 to, local of long re-	80	2 at 105	s della kanan daan -v	10000		-96.03	<ol> <li>Carlos No. P. Carlos Mat.</li> <li>Anna La Carlo Mat., P.A.N.</li> <li>Montania Carlos Mat., 2016.</li> <li>Montania Carlos Mat., 2016.</li> <li>Carlos Mat., 2017.</li> <li>Carlos Mat., 2017.</li> <li>Carlos Mat., 2017.</li> </ol>	The carry device of the period	ψe.	2 North	Mill Dir Million ( NY)>-	14 196.9
	uros una frenden e	Sociel Providence - Sociel Providence - Sociel - Sociel - Sociel - Sociel	No. 11 m. Convert Deligners			L IN MORPHISE	Basis mar Johns Primaris - Diffuentasi - Diffuentasi - Diff	tes in the interval langes a	NG	2 names	<ul> <li>A TYLES AN AREA</li> </ul>			and respective 1	Lanic Friedrich 1995 - Hanne 1995 - Hanne 19	New Hilms, Searcine Carighter	(et.	3744.0	Gitt the intervention ->	UP05
	anos da Policida I	Kult Produkt - Ligh Sciences - David get Kult	Kontro, Source Dokers			ALC: POINT OF T	Canal Personal Media Canal Anna Los Separatos	ties II no. Internal inducers	NGA	2 cands	C (Andra Distance de mont — 1	sens:		La Province 1	Easte if - regime - regime free for an - regime free domain	New Hilling, Secretic Carly new	5.4	27469	Cite the left and $\varepsilon$ mean $\rightarrow$	2101
	con na Assi	6.4.01.081	No. 10 Co. Press of Pasie 11.			Ger Bern I	Dudic MM BOAM	ton II m. Downed beigners	NA	2 veda	C dolf a Friend de Marie - S	005		to tekt	bok Pingau	Ванна бакта барта			dan maxaar i	
	AND POLY Fold of	5-4-70-840	Konit on Example Deleters			Factor Instantion 1	Danis Marabha	tion in the internal independent	КА	2 vania	C 16-Pa Pri an di ma>			Neder Provider 1	Genek (** rodpina	Ben Hina, Sanana Carpina	54	2000	Claf the life and classes>	1941

Figure 66: Registration Page – Layout (Versions 1–3)

User Flow Screens (	Based on	layout version 3)
---------------------	----------	-------------------

hydro	(y) ne							hydro	() ne					
Astration to PAC	Students Instru Registration + Ho							Registration Brocts P00 School	Students Instru Registration + Ho					
ding Se to Contons	About This Page	TO THE P&C TRAININ all cose too of social th for robot yes, work social too of social the rame robot zo cooled in the discuss or or other gives used in the	course list on our		Conta			🔥 Despitas Des Hg Al Bits Conten	About This Pag	TO THE P&C TRAININ B: cli courses or sesser for whit you worn see is due to us name (course coord) in th session by didney is before the bar give at	e zwesc latibelev	Ser 1	Conta	
	Browse Courses		Darin Cast						Browse Course Final (INN)		· Dante Dect			
	11 Geurse Name	Disor pilon 1. del servici 3. del Signatory Brancin, 1586, 1566, 616 4. del schemer 4. del schemer 4. del schemer 5. del schemer 5. del schemer 5. del schemer 6. del	Recommended For Sources, Monarch Analysis	Prevetuis ter 197	D, retor Form	Avelacie Gesser	kame 1883		Course hame	Derrotypiko L. 1992 : A. 1993 : A. 1993 : Construct Ton Toha, and A. 1994 : Construct Ton Toha, and A. 1994 : A. 19	Recommended for the transformer to be an	A te tecnisites N <sup>19</sup>	Duration Avents	Availacia Classes II kii ku oo daa
	Box 10	<ol> <li>Barry, T. (2014) Conf. (2014).</li> <li>Barry, Savard B. (2014).</li> <li>Barry, B. (2014).</li> </ol>	Here, H. Lins, Names and Company.	5/*	Control .	south the tax and the second			10.00	<ol> <li>How to creat a calle acts.</li> <li>How to creat EVEX, CMM</li> <li>How to creat EVEX, CMM</li> <li>How to creat EVEX, CMM</li> <li>How to creat EVEX.</li> </ol>	Weat House, so and and the grows	N(*)	1.001	that the sectors
	Les Polisien 1	Section 1 Britania Britania Britania	Key Has General Duly by	124	1 /410	Orbite Transformer - A	LPOL		Enclosed and	Bude Next and - Monator - Monat	No. 1995, Supers, Subjects	K9	1 veda	0.99194.02560
	Inc. P. Weiter 1	Land a minor grant Her yes fragmant and Land De parameters	Tana I and Searce and Service 4	10.4	2 years	Calified in constantso-	8483		64.5 HOURS 201	Hards With a sec High for the sec - Loss Dependence	New York, Services Canges V	<b>R</b> (2)	2.52.05	të kërkatë e të shë
	6150	An think play	to write gifter an of ficility of	1.1	t with	CRACK ALCORATE			$P_{0} + P_{0} \rightarrow 0$	Red Phile in a	Realities, Source Parkers	N/1	Pacilia.	0.40116.2016
	THE PARTY OF	the second part	tion and being the angle is	52.0	1 March	Carterin evenes0	e estat.		INCOME NUMBER OF	Instant In	Here, 11 and , benefit and the tagent of	R(3)	A NUMBER	ta a the last second second

for any second second to	1/*	2 Mars	Carterin constants -o	Least .	

Figure 67: Registration Page

initial etc. Figure 68: Registration Page – Search (1)

hydron St	é								
Registration St									
	ludents	Instructors	Admins						
Badk to PMC Top Ales	Registration	+ Horse							
Chevron Pro	WELCO		HE P&C T	RAIN	ING SITE		Contac	t Us	
	<ul> <li>Prozosi throut</li> <li>Check for avoir the patter for we</li> </ul>	ph evaliable course riable classes by di pooming classes by	s or search for what dring the neme (cou id doing the butten	nou wate asso cod it i to the right	the course list bolow or by closing the link in the course (	em .	Registe	Now	
	Browse Ci	ourses							
	Finds [ WW		in Derry	1918	· Junt Der				
	Course Nor Course Nor	1 34	mai bibs. Cela		Recemented for Via Recement Desper-	Prereguistes No	Function Process	Availebin Clarges Bet Contactor Available	Arm:

Figure 69: Registration Page – Search (2)

4/19/2021

Page 59 of 112



## **Registration Form**

## Layout Iterations (changes numbered in the figures below):

- 1. The "Student Details" heading was replaced with "Step 1: Confirm your personal information", so that the user immediately knows what is expected of them at each step of filling out the form.
- 2. The "Course Details" heading was replaced with "Step 2: Pick your desired course/class", in order to keep with the step-by-step theme in the rest of the form.
- 3. The notification preferences section was given the heading "Step 3: Confirm your notification preferences", in order to keep with the stepby-step theme in the rest of the form.
- 4. The "Submit" button was replaced with "Step 4: Submit", in order to keep with the step-by-step theme in the rest of the form.

	hydro <mark>©</mark>	Registration Form	Registration ID: 1	hydro <mark>©ne</mark>	<b>Registration Form</b>	Registration ID: 1	
1.	Student Details			Step 1: Confirm yo	our personal information		
	Student Name	WRIGHT Gabriel	2×14	Student Name	WRIGHT Gabriel	2×10	
	Student Title	New Graduate - Engineering		Student Title	New Graduate - Engineering		
	Manager's Name	JACKSON Alexander	1×11	Manager's Name	JACKSON Alexander	1° W	
0	Registration Date	2/2/2021	<b></b>	Registration Date	2/2/2021	Ē	
2.	Course Details		Step 2: Pick your desired course/class				
	Course Code		•	Course Code		•	
	Class Code		•	Class Code		-	
	Instructor Name			Instructor Name			
	Start Date			Start Date			
2	End Date			End Date			
3.	Send me a confirmat	tion email indicating that I've been successfully registered	1	Step 3: Confirm ye	our notification preferences		
	<ul> <li>Send me a reminder</li> </ul>	email 1 week before the class starts		. Containe and	formation and it is direction when the state in the second discussion of the		
	<ul> <li>Notify my manager t</li> </ul>	hat I've successfully registered		Send me a confirmation email indicating that I've been successfully registered Send me a reminder email 1 week before the class starts			
4.		Submit		1000	ager that I've successfully registered		
					Step 4: Submit		

Figure 70: Registration Form - Layout (Versions 1-2)

## User Flow Screens (Based on layout version 2)

hydro <mark>one</mark>	Registration Form	
Step 1: Confirm y	your personal information	Step 1: Cont
Student Name	WRIGHT Gabriel	Student Name
Student Title	New Graduate - Engineering	Student Title
Manager's Name	er's Name JACKSON Alexander 🕹 🖤	
Registration Date	egistration Date 2/2/2021	
Step 2: Pick your	desired course/class	Step 2: Pick
Course Code		▼ Course Code
Class Code		▼ Class Code
Instructor Name		Instructor Name
Start Date		Start Date
End Date		End Date
Step 3: Confirm y	your notification preferences	Step 3: Cont
Send me a co	onfirmation email indicating that I've been successfully registered	Send
Send me a re	Send me a reminder email <b>1 week</b> before the class starts	
<ul> <li>Notify my ma</li> </ul>	inager that I've successfully registered	✓ Notify
	Step 4: Submit	

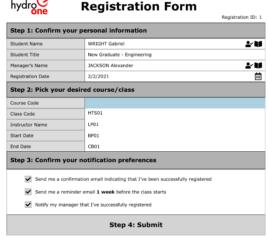


Figure 72: Registration Form (2)

Step 1: Confirm yo	our personal information	
Student Name	WRIGHT Gabriel	<b>*</b>
Student Title	New Graduate - Engineering	
Manager's Name	JACKSON Alexander	<b>*</b>
Registration Date	2/2/2021	Ė
Step 2: Pick your	desired course/class	
Course Code	HTS01	•
Class Code		•
Instructor Name		
Start Date		
End Date		
Step 3: Confirm yo	our notification preferences	

Figure 71: Registration Form (1)

hydro<sup>©</sup> Bogistration Form

Step 1: Confirm y	our personal information	
Student Name	WRIGHT Gabriel	1 V
Student Title	New Graduate - Engineering	
Manager's Name	JACKSON Alexander	£ 11
Registration Date	2/2/2021	
	desired course/class	
Step 2: Pick your	desired course/class	·····
Step 2: Pick your	desired course/class	
Step 2: Pick your Course Code Class Code	desired course/class	

Send me a reminder email **1 week** before the class starts

-

hydro **Registration Form** Registration ID: 1 Step 1: Confirm your personal information \* 11 Student Title New Graduate - Engi <u>\*</u> Manager's Name JACKSON Alexander 2/2/2021 Step 2: Pick your desired course/class Class Code LP01 BP01 Start Dat End Date CB01 Step 3: Co your notification Send me a confirmation email indicating that I've been successfully registered end me a reminder email 1 week before the class starts Notify my manager that I've successfully registered Step 4: Submit

Figure 73: Registration Form (3)

Step 1: Confirm your p	Registratio	
Student Name	WRIGHT Gabriel	
Student Title	New Graduate - Engineering	
Manager's Name	JACKSON Alexander	V
Registration Date	2/2/2021	iii)
Step 2: Pick your desir	ed course/class	
Course Code	HTS01	•
Class Code		
Instructor Name	HTS01-01	
Start Date	HTS01-02	
End Date	HTS01-03	
Step 3: Confirm your n	otification preferences	

Figure 74: Registration Form (4)		Figure 75: Registration Form (5)		Figure 76: Registration Form (6)		
Step 4: Submit		Step 4: Submit		Step 4: Submit		
Notify my manager that I've successfully registered		Notify my manager that I've successfully registered		<ul> <li>Notify my manager that I've successfully registered</li> </ul>		



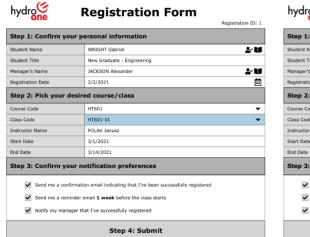


Figure 77: Registration Form (7)

#### hydro<mark>one</mark> **Registration Form** Step 1: Confirm your personal information Student Name WRIGHT Gabrie New Graduate - Eng Student Title Manager's Name JACKSON Alex Registration Date 2/2/2021 Step 2: Pick your desired course/class Course Code Class Code Instructor Na Start Date Step 3: Confirm your notification preferences Send me a co ition email ind ting that I've been s Send me a reminder email **1 week** before the class starts Notify my manager that I've successfully registered Step 4: Submit

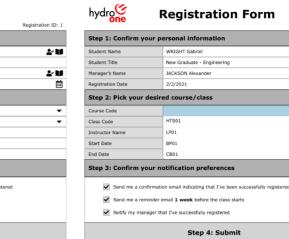


Figure 78: Registration Form – No Open Classes (1) Figure 79: Registration Form – No Open Classes (2)

Registration ID: 1

\*\*

\* 11

Ē

hydro <mark>©</mark>	Registration Form	Registration ID: 1		
Step 1: Confirm your p	ersonal information			
Student Name	WRIGHT Gabriel	2·V		
Student Title	New Graduate - Engineering			
Manager's Name	JACKSON Alexander	<u>*</u> 14		
Registration Date	2/2/2021	Ē		
Step 2: Pick your desir	red course/class			
Course Code				
Class Code	HTS01			
Instructor Name	LP01			
Start Date	BP01			
End Date	CB01			
Step 3: Confirm your r	otification preferences			
Send me a confirmat	ion email indicating that I've been successfully registered			
Send me a reminder	email 1 week before the class starts			
<ul> <li>Notify my manager t</li> </ul>	hat I've successfully registered			
	Step 4: Submit			

hydro <mark>©</mark>	<b>Registration Form</b>	
	Registration I	D: 1
Step 1: Confirm yo	our personal information	
Student Name	WRIGHT Gabriel	Ú
Student Title	New Graduate - Engineering	
Manager's Name	JACKSON Alexander	U
Registration Date	2/2/2021	
Step 2: Pick your	desired course/class	
Course Code	LP01	•
Class Code	No open classes available Please contact your administrator	
	Contact Administrator	

Figure 80: Registration Form – No Open Classes (3) Figure 81: Registration Form – No Open Classes (4)

4/19/2021

User Experience Design Report P&C Training Site Page 61 of 112



## **Announcement Form**

## Layout Iterations (changes numbered in the figures below):

- 1. The "Course Details" heading was replaced with "Step 1: Fill in the details below", so that the user immediately knows where to start.
- 2. The heading "Step 2: Confirm your notification preferences" was added to the notifications section, in order to keep with the step-bystep theme in the rest of the form.
- 3. The "Send Announcement" button was replaced with "Step 3: Send Announcement", in order to keep with the step-by-step theme in the rest of the form.

	hydro <mark>ce Aı</mark>	nnouncement Form		hydro <mark>one</mark>	Announcement Form
1		Announcement I	D: 1		Announcement ID: 5
- I I	Course Details			Step 1: Fill in the c	details below
	Course Code	HTS01	•	Course Code	HTS01
	Class Code	HTS01-01	•	Class Code	HTS01-01 -
	Instructor Name	POLAK Janusz		Instructor Name	POLAK Janusz 🕹
	Date	2/10/2021	<b></b>	Date	2/10/2021
	Subject	New Course Material		Subject	New Course Material
	Message	The following documents were uploaded to the training site: - Reading 1 - Tutorial 1 - Assignment 1		Message	The following documents were uploaded to the training site: - Reading 1 - Tutoriant 1 - Assignment 1
2.	<ul> <li>Notify all of the students in the class via email</li> <li>Send me a copy of the announcement message (include my name on the CC)</li> </ul>			Step 2: Confirm yo	our notification preferences
				<ul> <li>Notify all of the students in the class via email</li> </ul>	
З.		Send Announcement		Send me a cop	y of the announcement message (include my name on the CC)
					Step 3: Send Announcement

Figure 82: Announcement Form - Layout (Versions 1-2)

## User Flow Screens (Based on layout version 2)

hydro <mark>()</mark>	nnouncement Form	hydro <mark>()</mark>	Announcement Form	hydro	Announcement Form	
	Announcement ID: 1		Announcement ID: 5		Announcement ID: 5	
Announcement Detai	Is	Step 1: Fill in the del	tails below	Step 1: Fill in th	e details below	
Course Code	1501 🗸	Course Code	·	Course Code	HTS01	
Class Code	IS01-01 🗸	Class Code	· · · · · · · · · · · · · · · · · · ·	Class Code	HTS01-01	
Instructor Name	STUCKLESS Mark	Instructor Name	2-10 2-10	Instructor Name	POLAK Janusz 🏼 🕹 🖤	
Date	2/1/2021	Date	<b></b>	Date	2/10/2021	
Subject	Welcome to the course!	Subject		Subject	New Course Material	
Message	Hello Students, Welcome and make sure to get Reading 1 finished before the first lesson. Many thanks, Course Instructor	Message		Message	The following advacuments were uploaded to the training site: - Reading 1 - Tutorial 1 - Assignment 1	
Notification Preferen	ces	Step 2: Confirm your	r notification preferences	Step 2: Confirm	your notification preferences	
<ul> <li>Notify all of the students in the class via email</li> <li>Send me a copy of the announcement message (include my name on the CC)</li> </ul>		Notify all of the students in the class via email Send me a copy of the announcement message (include my name on the CC)		<ul> <li>Notify all of the students in the class via email</li> <li>Send me a copy of the announcement message (include my name on the CC)</li> </ul>		
Close		Step 3: Send Announcement		Step 3: Send Announcement		
<i></i>						

Figure 83: Announcement Form (1)

Figure 84: Announcement Form (2)

Figure 85: Announcement Form (3)

4/19/2021

User Experience Design Report P&C Training Site Page 62 of 112



## **Assignment Form**

## Layout Iterations (changes numbered in the figures below):

- 1. The "Class Details" heading was replaced with "Step 1: Fill in the class details", so that the user immediately knows where to start.
- 2. The heading "Assignment Details" was replaced with "Step 2: Fill in the assignment details", in order to keep with the step-by-step theme in the rest of the form.
- 3. The notification preferences section was given the heading "Step 3: Confirm your notification preferences", in order to keep with the stepby-step theme in the rest of the form.
- 4. The "Submit Assignment" button was replaced with "Step 4: Submit Assignment", in order to keep with the step-by-step theme in the rest of the form.

	hydro <mark>©ne</mark>	Submission Form		hydro <mark>©ne</mark>	Submission Form
1.	Class Details	Assignment, IV: 1	1	Step 1: Fill in the	
	Student Name	WRIGHT Gabriel	1	Student Name	14 L
	Course Code	HTS01 -	1	Course Code	•
	Class Code	HTS01-01 -	1	Class Code	•
	Instructor Name	POLAK Janusz	1	Instructor Name	
2.	Assignment Details			Step 2: Fill in the	assignment details
	Assignment Number	1		Assignment Name	
	Attachment	W HTSO1-01_Assignment1.docx	1	Attachment	<b>%</b>
	Submission Date	5/2/2021	1	Submission Date	<b></b>
	Student Comments	N/A	1	Student Comments	
З.	Notify the instruct	or via email that I've submitted my assignment with a link to this form		Step 3: Confirm yo	our notification preferences
4.		Submit Assignment		Notify the instr	uctor via email that I've submitted my assignment with a link to this form
			1		Step 4: Submit Assignment

Figure 86: Assignment Form - Layout (Version 1-2)

## User Flow Screens (Based on layout version 2)

hydro <mark>©ne</mark>	Submission Form	hydro	Submission Form	h	ydro <mark>©ne</mark>	Review Submission
Step 1: Fill in the	class details	Step 1: Fill in the clas	ss details	St	ep 1: Review Det	ails
Student Name	2 V	Student Name	WRIGHT Gabriel	Stu	dent Name	WRIGHT Gabriel
Course Code	▼	Course Code	HTS01	Col	urse Code	CB01 -
Class Code	▼	Class Code	HTS01-01	Cla	ss Code	CB01-01 -
Instructor Name		Instructor Name	POLAK Janusz	Ins	tructor Name	VAN DER LAAN Joseph
Step 2: Fill in the	assignment details	Step 2: Fill in the ass	ignment details	St	ep 2: Review Att	achment/Comments
Assignment Name		Assignment Name	Assignment 1	Ass	ignment Name	Assignment 1
Attachment	<b>%</b>	Attachment	W HTSO1-01_Assignment1.docx	Att	achment	ScB01-01_Assignment1.docx
Submission Date	<b></b>	Submission Date	5/2/2021	Sul	omission Date	2/3/2021
Student Comments		Student Comments	N/A	Stu	dent Comments	N/A
Step 3: Confirm y	our notification preferences	Step 3: Confirm your	notification preferences	St	ep 3: Provide Fe	edback
<ul> <li>Notify the inst</li> </ul>	tructor via email that I've submitted my assignment with a link to this form	Notify the instructor	or via email that I've submitted my assignment with a link to this form	Ins	tructor Comments	
		,		Rev	view Date	
	Step 4: Submit Assignment		Step 4: Submit Assignment	St	ep 4: Confirm no	tification preferences
						nt that the submissions has been reviewed via email ructor on the copy of the notification to student
						Stop 5: Submit Soodback

(1)

Figure 87: Assignment Form – Submit Assignment Figure 88: Assignment Form – Submit Assignment Figure 89: Assignment Form – Submit Feedback (2)

**Submission Reviewed** 

hydro

hydro	<b>Review Submission</b>	
One		Assignment ID: 1
Step 1: Review D	etails	
Student Name	WRIGHT Gabriel	1- L
Course Code	CB01	•
Class Code	CB01-01	•
Instructor Name	VAN DER LAAN Joseph	
Step 2: Review A	tachment/Comments	
Assignment Name	Assignment 1	
Attachment	ScB01-01_Assignment1.docx	
Submission Date	2/3/2021	<b></b>
Student Comments	N/A	
Step 3: Provide F	eedback	
Instructor Comments	Great work!	
Review Date	2/17/2021	
Step 4: Confirm n	otification preferences	
✓ Notify the stu	dent that the submissions has been reviewed via email	

ent ID: 1 WRIGHT Gabri \*\* BI CB01 Class Code CB01-01 DUNN Mag ent Details ent 1 **S** CB01-01 dent Co N/A Great work 3/14/2020 Close

(1)



(1)

Figure 91: Assignment Form – Reviewed (1)



## **Class Form**

# Layout Iterations (changes numbered in the figure below):

- 1. The "Class Details" heading was replaced with "Step 1: Fill in the class details", so that the user immediately knows where to start.
- 2. The automation preferences section was given the heading "Step 2: Confirm your automation preferences", in order to keep with the step-by-step theme in the rest of the form.

	hydro <mark>©</mark>	Class Form		hydro <mark>©</mark>	New Class Form
1			Class ID: 1		Class ID: 1
1.	Class Details			Step 1: Fill in the class	details
	Course Code	HTS01	-	Course Code	LP01 -
	Class Code (suggested)	HTS01-01	•	Class Code (suggested)	LP01-01
	Start Date	3/1/2021	iii	Start Date	4/1/2021
	End Date	3/14/2021	Ē	End Date	4/14/2021
	Instructor Name	POLAK Janusz	2~ W	Instructor Name	KELLY James 🕹 🖬
	Status	Open	•	Status	Open 👻
2.	<ul> <li>Automatically change</li> </ul>	the status from "open" to "closed" once 5 students register for th	nis class	Step 2: Confirm your a	utomation preferences
	Automatically change after the end date	the status to "in-progress" after the start date and to "completed	r	Automatically change	the status from "open" to "closed" once 5 students register for this class
	Automatically notify to can start getting book	he administrator once 5 students register for this class indicating red	that sessions	Automatically change after the end date	${\rm e}$ the status to "in-progress" after the start date and to "completed"
		Save Changes		Automatically notify can start getting boo	the administrator once 5 students register for this class indicating that sessions ked
					Save Changes

Figure 92: Class Form - Layout (Versions 1-2)

## User Flow Screens (Based on layout version 2)

hydro <mark>©ne</mark>	New Class Form	hydro <mark>se</mark>	New Class Form	hydroge	New Class Form
Step 1: Fill in the cl	lass details	Step 1: Fill in the cla	ass details	Step 1: Fill in the cl	lass details
Course Code	•	Course Code		Course Code	
Class Code (suggested)		Class Code (suggested)	IS01	Class Code (suggested)	1501
Start Date	<b></b>	Start Date	HTS01	Start Date	HTS01
End Date	<b></b>	End Date	LP01	End Date	LP01
nstructor Name	2~¥	Instructor Name	BP01	Instructor Name	BP01
itatus	Open 👻	Status	CB01	Status	CB01
Step 2: Confirm you	ur automation preferences	Step 2: Confirm you	r automation preferences	Step 2: Confirm you	ur automation preferences
after the end dat	otify the administrator once 5 students register for this class indicating that sessions	after the end dat	tify the administrator once 5 students register for this class indicating that sessions	after the end da	tify the administrator once 5 students register for this class indicating that sessio
Fig	Save Changes ure 93: Class Form (1)	F	Save Changes igure 94: Class Form (2)		Save Changes Figure 95: Class Form (3)
Fig hydro <mark>©</mark>	• • • • • • •	Fi			•
hydro <mark>©</mark>	ure 93: Class Form (1) New Class Form		igure 94: Class Form (2) New Class Form		•
hydro <mark>ce</mark> Step 1: Fill in the cl	ure 93: Class Form (1) New Class Form	hydro <mark>ce</mark>	igure 94: Class Form (2) New Class Form		
nydroffe itep 1: Fill in the cl	ure 93: Class Form (1) New Class Form (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	hydroone Step 1: Fill in the cla	igure 94: Class Form (2) New Class Form ass details U001 U01-01		
hydrose Step 1: Fill in the cl Course Code Class Code (suggested)	ure 93: Class Form (1) New Class Form (I) (Isso Description of the second secon	hydrogie Step 1: Fill in the cla Course Code	igure 94: Class Form (2) New Class Form ass details UP31		
Step 1: Fill in the cl Course Code Class Code (suggested) Start Date	ure 93: Class Form (1) New Class Form (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	hydrococ Step 1: Fill in the clu Course Code Class Code (suggested)	igure 94: Class Form (2) New Class Form ass details U001 U01-01		
Step 1: Fill in the cl Course Code (suggested) Start Date	ure 93: Class Form (1) New Class Form Class ID: 1 LP01 LP01 LP01 LP01 LP01 LP01 LP01 LP0	Step 1: Fill in the clu Course Code Class Code (suggested) Start Date	igure 94: Class Form (2) New Class Form Class ID: 1 Class ID: 1  D01  4/1/2021	,	•
Step 1: Fill in the cl Course Code Class Code (suggested) Sart Date End Date Instructor Name	ure 93: Class Form (1) New Class Form Class ID: 1 Clas	Step 1: Fill in the cli Course Code Class Code (suggested) Start Date End Date	igure 94: Class Form (2) New Class Form Class ID: 1 Class ID: 1 Cl		
hydrogie Step 1: Fill in the cl Course Code Class Code (suggested) Start Date end Date instructor Name Status	ure 93: Class Form (1) New Class Form Less ID: 1 Case ID: 1	Step 1: Fill in the cle Course Code Class Code (suggested) Sart Date End Date Instructor Name Status	igure 94: Class Form (2) New Class Form Tess ID: 1 Class ID: 1 Cla		
Step 1: Fill in the cli Course Code Class Code (suggested) Start Date End Date Instructor Name Status Step 2: Confirm you Automatically ch atter the end dat	Uree 93: Class Form (1) Description of the start date and to "completed" to "under the start date and to "completed"	Step 1: Fill in the cli         Course Code         Class Code (supperted)         Start Date         End Date         Instructor Name         Status         Step 2: Confirm your         Automatically chi after the end oak	igure 94: Class Form (2) Description of the second of the		

Figure 96: Class Form (4)

Figure 97: Class Form – Edit Details (1)

4/19/2021

User Experience Design Report P&C Training Site Page 64 of 112



## **Course Form**

## Layout Iterations (changes numbered in the figure below):

- 1. The "Course Details" heading was changed to "Step 2: Browse upcoming classes", to keep with the step-by-step theme in the rest of the form.
- 2. The upcoming classes section was moved to above the course details section, and the heading was changed to "Step 1: Browse upcoming classes", so that users know where to start.
- 3. The "Register Now" button that opens a registration form in the browser was renamed "Step 3: Begin Registration, in order to keep with the step-by-step theme in the rest of the form.

	hydro <mark>©ne</mark>	Cours	e Sun	nmary	Edit Details	hydro <mark>©ne</mark>	Course	e Sum	nmary	Edit Details
1.	Course Details					Step 1: Browse u	pcoming classes			
	Course Code	HTS01				Class Code	Start Date	End Date	Instructor Name	Status
	Course Name	How To's				HTS01-01	3/1/2021	3/14/2021	POLAK Janusz	Open
	Prerequisites	N/A				HTS01-02	6/1/2021	6/14/2021	VAN DER LAAN Joseph	Open
	Duration	2 weeks				HTS01-03	9/1/2021	9/14/2021	POLAK Janusz	Open
	Recommended For	New Hires, Se	asoned Designe	irs		HTS01-04	12/1/2021	12/14/2021	VAN DER LAAN Joseph	Open
	Description	1. How to rea	d single lines d EWDs, CWDs			Step 2: Review c	ourse details			
		3. Project Ov		ates-ARs- EMPP, DETL rview?		Course Code	HTS01			
		5. Intro to P8	с			Course Name	How To's			
	Attachments	📎 нтоо1_	Course_Outlin	e.docx		Prerequisites	N/A			
2	Upcoming Classes					Duration	2 weeks			
	Class Code	Start Date	End Date	Instructor Name	Status	Recommended For	New Hires, Sea	soned Designe	irs	
	HTS01-01	3/1/2021	3/14/2021	POLAK Janusz	Open	Description	1. How to read			
	HTS01-02	6/1/2021	6/14/2021	VAN DER LAAN Joseph	Open		<ol> <li>How to read</li> <li>Project Over</li> <li>Who is who</li> </ol>	view: Stage G	ates-ARs- EMPP, DETL view?	
	HTS01-03	9/1/2021	9/14/2021	POLAK Janusz	Open		5. Intro to P&C			
	HTS01-04	12/1/2021	12/14/2021	VAN DER LAAN Joseph	Open	Course Outline	<b>%</b> нтso1_с	ourse_Outlin	e.docx	
З.		R	egister No	w			Step 3: B	egin Regi	stration	

Figure 98: Course Form - Layout (Versions 1-2)

## User Flow Screens (Based on layout version 2)

				Edit Detail
Step 1: Browse up	coming classes			
Class Code	Start Date	End Date	Instructor Name	Status
HTS01-01	3/1/2021	3/14/2021	POLAK Janusz	Open
HTS01-02	6/1/2021	6/14/2021	VAN DER LAAN Joseph	Open
HTS01-03	9/1/2021	9/14/2021	POLAK Janusz	Open
HTS01-04	12/1/2021	12/14/2021	VAN DER LAAN Joseph	Open
Step 2: Review co	urse details			
Course Code	HTS01			
Course Name	How To's			
Prerequisites	N/A			
Duration	2 weeks			
Recommended For	New Hires, Se	easoned Designe	rs	
Description	2. How to rea 3. Project Ov	o in general over	ites-ARs- EMPP, DETL view?	
Course Outline	Sh HTSO1	Course_Outline	a.docx	

Upcoming Classes	i
No open classes available	Please contact your administrator by clicking the "Contact Administrator" button
Course Details	
Course Code	LP01
Course Name	Line Protection I
Prerequisites	N/A
Duration	2 weeks
Recommended For	New Hires, Seasoned Designers
Description	Basic Principles: - Distance - Differential - DCl - Pott
Course Outline	Stepsilon LP01_Course_Outline.docx

hydro <mark>one</mark>	Course Summary	🖌 Edit Details
Step 1: Edit Cours	e Details (Admin Only)	
Course Code	BP01	
Course Name	Bus Protections I	
Prerequisites	N/A	
Duration	2 weeks	
Recommended For	New Hires, Seasoned Designers	
Description	Basic Principles: - High Impedance - Low Impedance	
Course Outline	BP01_Course_Outline.docx	
	Step 2: Submit (Admin Only)	

Figure 99: Course Form

Figure 100: Course Form – No Open Classes (1)

Figure 101: Course Form – New Course (2)

hydro	Э ne

Course Summary

Step 1: Edit Course D	Petails (Admin Only)
Course Code	HTS01
Course Name	How To's
Prerequisites	N/A
Duration	2 weeks
Recommended For	New Hires, Seasoned Designers
Description	1. How to read single lines:     2. How to read SIVDs, CVVb     3. Project Overview: Stage Gates-ARs- EMPP, DETL     4. Who is who in general overview?     5. Intro to P&C
Course Outline	HTSO1_Course_Outline.docx
S	tep 2: Save Changes (Admin Only)

Figure 102: Course Form – Edit Details (1)



Figure 103: Course Form – Edit Details (2)

 Course Summary

 Step 1: Edit Course Details (Admin Only)

 Course Code

 Course Name

 Prerequisites

 Duration

 Recommended For

 Description

 Course Outline

 Step 2: Submit (Admin Only)

Figure 104: Course Form – New Course (1)

4/19/2021

Page 65 of 112



## **Student Area**

## **User Flow Screens**

hydrg	(C) ine		WRIGHT G	sbriel 👻
Registration	Students Instructors Admins			
Nick te HNC Lico Hilli	Registration + Students			
森 Kasaling Ser 隋 A. Dina Cardwal	STUDENT AREA Instructions: - Home to skew your class Netway. - Home to skew/shartR ansignments. - Home to skew/shartRa ansignments.		Contact Us	
	Navigate using the battons below: Your Classes	Your Assignments	View Course Material	

						W
hydro	ဖြ ne					
Registration	Students In	structors Adm	ins			
nekte sati Donih	Registration +	Your Classes				
A Reading Inc.	STUDENT	T AREA			Con	tact Us
能 At Site Carbert	Instructions:					
	<ul> <li>How to steez you</li> <li>How to steez/au</li> <li>How to steez/do</li> </ul>		and a			
	Navigate usi	ng the buttons b	clow:			
	You	r Classos	Your Assig	nments	View Cou	rso Material
	Below is a lis	it of all the class	es that you're register	red for:		
	Course Reme	C NOS COLLE	Departmention Carls	Ref Tele	fed Date	(ii) Instructor Name
	U States : Dealled	90				
	Internation Sectors	1 1966 E.	5/15/6001	31038	5/14/2001	57. CH1295 Ruft
	line Trit	11501-6.	2/15/5001	61633	6/34/2021	<ul> <li>FOLM DETAIL</li> </ul>
	Line Provident I	300-CL	2/35/0062 2/35/2004	901-Gal26 5471-9381	9010000	<ul> <li>READ Served</li> <li>READ of the test</li> </ul>
	10-ADABCC	-A.1.4	and from (	an estat	re-gan	<ul> <li>Frankling (K)</li> </ul>
	Status : Complete	ed (1)				
	Do not	14041	2010/214	121-122	2010/2141	<ul> <li>Recent response</li> </ul>
	weeks the end of the	10000	10 YO MARK	50.0124	1010214	<ul> <li>Electrony Area</li> </ul>
	Resident Part and B	01° - II	100 MART	1010104	1010311	
	Township Polisi	11 W11 01	10140407	11/1-2/00	the grant	CONTRACTOR AND A DESCRIPTION OF

		WRIGHT Gabriel
hydro	C ne	
Registration	Students Instructors Admins	
the kite of MC	Registretion + Your Assignments	
🖨 Rossing Ter 🖺 Al Dire Carley	STUDENT AREA Conta	act Us
	<ul> <li>- Kinan Ita salawa yanar di ana Maharay</li> <li>- Kinan Ita salawa yana miti masala manala</li> <li>- Kinan Ita salawa/disentifikad alisama diseannada</li> </ul>	
	Navigate using the buttons below:	
	Your Classes Your Assignments View Cour	so Material
	Select an option below:	
	Submit an Assignment View Submissions View Sectors	at them.

## Figure 105: Student Area

							WRIGHT Gabrie
hydro	ି ne						
Registration	Student	a Instructors	Admins				
Back to MC 330 Aids	Regist	ration + View Sub	missions				
(). Nagalay ta	<u>STL</u>	DENT ARE	A			Contact U	Jis
lig Al Dia Garbert	- How I	uctions: n view/waterst evelop n view/waterst evelop n view/download cos	ments				
	Navig	ate using the b Your Classe		W: Your Ass	ignments	View Course N	laterial
	_	t an option bek Submit an Assig		View Sut	missions	View Solut	ions
				ssignment submi with the status "R		Edit" icon to see yo	ur
	= rm	Other Rents	Field Othe	Antigement Nerve	S.Imiesian Date	(i) Indextor Name	Retters Dates
	iii Matus W W W	<ul> <li>Panding Review (4)</li> <li>Chron to Same ( 1997) 10</li> <li>Control to Same ( 1997) 10</li> <li>Control to Same ( 1997) 10</li> </ul>	ibida Historia Bateria Historia	And give new 3 And give new 3 And give new 4 And give new 4	20082. 20082. 20082.	<ul> <li>STUDILZS Net</li> <li>SULAS branch</li> <li>SULAS branch</li> <li>SULAS branch</li> <li>SULAS branch</li> </ul>	
	∺ 6tatus 2	Reviewed (1)	CAD41	AN DOMESTIC	Alleride	· Barton Magila	201003
			10.0240	for press 3	The Workshift	• • • • • • • • • • • • • • • • • • •	\$214 (A4.24)

 Figure 108: Student Area – Your Assignments – View
 Figure 109: Student Area – Your Assignments –

 Submissions

## Figure 106: Student Area – Your Classes

			WRIGHT Cabrie
hydrg	one Sector		
gistration	Students Instructors Admins		
in the PAID Adds	Registration + View Solutions		
Goode y den Officiale Goodene	STUDENT AREA Instructions:	Cor	ntact Us
	- line is deter space choose history - line is determined and space choose and space	ments View Cor	urse Material
	Select an uption below: Submit an Assignment View Subm	issions	Solutions
	Below is a list of all the solutions that are posted a open a file by clicking the document name in the "	nd made visible by your inst Name" column:	ructors, you can
	Below is a list of all the solutions that are posted a open a file by clicking the document name in the "	nd made visible by your inst Name" column: Decomo: type	Entratoria you can
	open a file by clicking the document name in the *	Name" column: Decision: Type State: state:	<ul> <li>Instructor harms</li> <li>O'LGR20 hart</li> <li>O'LGR20 hart</li> <li>Instructor hart</li> </ul>
	open a file by clicking the document name in the " Dome Gamma Cole (1788) Gamma Cole	Name" column: Decimin: Type	ferrer unter harme     fortes pas met     fortes pas met
	open a file by clicking the document name in the " theme taken the taken the taken t	Name" column: Decision: Type State: state:	<ul> <li>Instructor harms</li> <li>O'LGR20 hart</li> <li>O'LGR20 hart</li> <li>Instructor hart</li> </ul>
	open a file by clicking the document name in the " box count of the second seco	Name" column: Decision: Type State: state:	<ul> <li>Instructor harms</li> <li>O'LGR20 hart</li> <li>O'LGR20 hart</li> <li>Instructor hart</li> </ul>
	open a file by clicking the document name in the "	Name" column: Decision: Type State: state:	<ul> <li>Instructor harms</li> <li>O'LGR20 hart</li> <li>O'LGR20 hart</li> <li>Instructor hart</li> </ul>
	open of Re by dicking the document mem in the " Counter of the transmission of the second sec	Name" column: Decision: Type State: state:	<ul> <li>Instructor harms</li> <li>O'LGR20 hart</li> <li>O'LGR20 hart</li> <li>Instructor hart</li> </ul>
	open a file by dicking the document name in the "  Chana Color (1983)  argents bits chana Color (1983)  Consected (1983)	Name" column: Decision: Type State: state:	<ul> <li>Instructor harms</li> <li>O'LGR20 hart</li> <li>O'LGR20 hart</li> <li>Instructor hart</li> </ul>
	open of Re by clicking the document mamp in the "  Common of the second	Name" column: Decision: Type State: state:	<ul> <li>Instructor harms</li> <li>O'LGR20 hart</li> <li>O'LGR20 hart</li> <li>Instructor hart</li> </ul>
	open of Re by dicking the document memory in the "  Channes Gales (1955)  array in the second	Name" column: Decision: Type State: state:	<ul> <li>Instructor harms</li> <li>O'LGR20 hart</li> <li>O'LGR20 hart</li> <li>Instructor hart</li> </ul>
	open of Re by clicking the document mamp in the "  Common of the transmission of the second s	Name" column: Decision: Type State: state:	<ul> <li>Instructor harms</li> <li>O'LGR20 hart</li> <li>O'LGR20 hart</li> <li>Instructor hart</li> </ul>

View Solutions

## Figure 107: Student Area – Your Assignments

							WRIGHT Gabriel
nydrg	ဖြ one						
gistration	Students	Instructors	Admins				
A GA	Registratio	n + Vew Cours	se Meterial				
maya ing Win I Nifer Contarri	Instructio	INT AREA	Y			Con	ntact Us
		using the bul Your Classes	ttons below:	Your Assign	ments	View Cou	arse Material
	can open			that are posted mont name in th		lumn:	
	can open	a file by click					structors, you Internet town
	can open	a file by click				lumn:	
	Can open Verve Course Code Autorise Code Colores C Code	a file by click				lumm: Beament type Set Set Set Set Set Set Set Set Set Se	Instrumentary Version     Sector and the secto
	Can open Virwe Course Call Anigenee Qasa Transof A Nongenee Qasa Transof A Nongenee Carrier 1	a file by click				lumm: Beament type Set Set Set Set Set Set Set Set Set Se	Instrumentary Version     Sector and the secto
	Can open Vine Course Cade Angenes Or 7 Transit 7 Karnes 1 Karnes 1 Karnes 1 Karnes 2					lumm: Beament type Set Set Set Set Set Set Set Set Set Se	Instrumentary Version     Sector and the secto
	Can open Vine Course Cade (2023) Calanta Categorian Devic Categorian Devic Categorian Ca					lumm: Beament type Set Set Set Set Set Set Set Set Set Se	Instrumentary Version     Sector and the secto
	Can open Vires Course Cast Augustan Casta	- i mos - i mos				lumm: Beament type Set Set Set Set Set Set Set Set Set Se	Instrumentary Version     Sector and the secto
	Carri operni Vine Casine Casine Augusta Strange Strange Strange Casine C	<ul> <li>I writes</li> </ul>				lumm: Beament type Set Set Set Set Set Set Set Set Set Se	Instrumentary Version     Sector and the secto
	Can open Vires Course Cast Augustan Casta	<ul> <li>I writes</li> <li>I writes&lt;</li></ul>				lumm: Beament type Set Set Set Set Set Set Set Set Set Se	Instrumentary Version     Sector and the secto
	Can open Year Caure Cash Garree Cash Carree Cash Carree Cash Carree Cash Casree Cash Casree Cash Casree Cash Casree Cash Casree Cash Casree Cash	<ul> <li>Interpretation</li> <li>Interpretation<td></td><td></td><td></td><td>lumm: Beament type Set Set Set Set Set Set Set Set Set Se</td><td>Instrumentary Version     Sector and the secto</td></li></ul>				lumm: Beament type Set Set Set Set Set Set Set Set Set Se	Instrumentary Version     Sector and the secto

Figure 110: Student Area – View Course Material

4/19/2021

User Experience Design Report P&C Training Site

Page 66 of 112

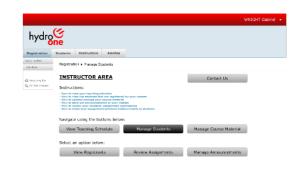


#### **Instructor Area**

#### **User Flow Screens**

	C					
hydro						
Registration	Students	Instructors	Admins			
fack to HNC Tao Akla	Registrat	ion + Enstructions				
습 Kaaday In 월 Al Sin Celler	INST.	RUCTOR A	REA		Contact Us	
	<ul> <li>How to vi</li> <li>How to vi</li> <li>How to vi</li> <li>How to an</li> <li>How to m</li> </ul>	ew your feaching to ew the students the pixed / manage your and out announcare room your students who your assignment	d are registered course material ents to your class assignment sub it solutions held	na miaiana miaiana m/viaibha ta atashanta m/viaibha ta atashanta		
	Navigate	e using the bu	ttons below			
	View	Teaching Sch	edule	Manage Students	Manage Course Material	

RECTOR PAIL		Admins			
haib	Registration + View Teaching	Schedule			
Pazzle y see	INSTRUCTOR AR	EA		Contac	t Us
All Sille Contem	Instructions:				
	- Hour to make your addrests' as - Hour to make your addrests' as Navigate using the butto	dutions hidden/visible to stader	ila.		
	View Teaching Sched	ule Manage	Students	Manage Cours	se Material
	Below is a list of all the o	lasses that you're sche dia tole	duled to teach:	the Date	(i) Instructor
				tini Deca	(i) Instructor
	- Causar Nama			bine blacks	<ul> <li>Instructor</li> <li>Model (Marcola Control of Section 2014)</li> </ul>
	Course Years     Status : In Progress (I)     D. 6 Flockeys	then Links	filed Date		
	- Causa Yana Status : In Progress (I)	then Links	hiari Data 271200	10 good	
	Council Yuma Coun	these toolse arrange	filed Date		
	<ul> <li>Charace Yama</li> <li>Sharace Yama</li> <li>Sharace Scherers</li> </ul>	Chao Loin Kom F Mic. M Mic. M Mic. At	blart Dote 27/2007 21-00022 21-00022	5/3 (5/01) 5/35/0004 6/35/0004	In Sold the In Sold to a so- in Sold the InSold Sold Sold Sold Sold Sold Sold Sold
	Classes Yerrs Classes (1) Cla	Class Loder RNW 11 2012-34 WEBL-34	Nart Date 27/207 Science Contra	50 (500) 509 6004 609 6004	In the second second second In the SCH Scher Street
	<ul> <li>Charace Yama</li> <li>Sharace Yama</li> <li>Sharace Scherers</li> </ul>	Chao Loin Kom F Mic. M Mic. M Mic. At	blart Dote 27/2007 21-00022 21-00022	5/3 (5/01) 5/35/0004 6/35/0004	In Sold Bark (2009 In 2 w) In Sold Bark (2009 In 2 w) In Sold Bark (2009 In 2 w) In Sold Bark (2009 In 2 w)
	Classes Fame Rates Rate	Chao Loin Kom F Mic. M Mic. M Mic. At	blart Dote 27/2007 21-00022 21-00022	5/3 (5/01) 5/35/0004 6/35/0004	In Sold Bark (2009 In 2 w) In Sold Bark (2009 In 2 w) In Sold Bark (2009 In 2 w) In Sold Bark (2009 In 2 w)
	Concernent Numer Concernent (M. Programs (M) M. A. State Open (A) Provide Concernent Has NA K. W. Mander ( K. W. Mander ( M. K. State ()) Brate () Brate () Brate ()	Class Eiden Roter I BE-34 BE-24 BE-24 BE-25 BE-2	Elard Doter Reyner Societa Cocieta Cocieta Societa Societa	5/34/0003 0/35/0003 0/35/0003 0/32/0003 0/32/0003	NORM REFLOOR 12 4 1
	Content Name Content Name Content In Programme (1) Out Articulators Desting Topogene (1) Provide Learner Instant Content Instant Content I) Desting Topogene D	Class Lobs Role 11 2010-24 Wildows Wildows Wildows Wildows Wildows Wildows Wildows Wildows Wildows	Start Dolo 27/2011 Start Dolo Startist Startist Startist Startist Startist Startist Startist	50146445 6024966 6024966 6024966 6024966 6024966 6024966 60249645	NORM REFLORE 1 & C NORM REFLORE 1 & C
	Concernent Numer Concernent (M. Programs (M) M. A. State Open (A) Provide Concernent Has NA K. W. Mander ( K. W. Mander ( M. K. State ()) Brate () Brate () Brate ()	Class Eiden Roter I BE-34 BE-24 BE-24 BE-25 BE-2	Sart Dote 27(247) 254003, 254003, 254003, 254003, 25905, 25905, 25906, 25906, 25906,	STRAFT STRAFT STRAFT STRAFT STRAFT	NORM REFLOOR 12 4 1



#### Figure 111: Instructor Area

				WRIGHT Gabriel
hydro	င္တ ne			
tegistration	Students Instructors Adv	mina		
ek te 980 o Alfa	Registration + View Registrants			
National Ing. DOI: 1	INSTRUCTOR AREA		Contact	Us
At Site Carbox	Instructions:			
	<ul> <li>How to slear your teaching scheduler.</li> <li>How to slear the scheduler's hold are re- line to uplied /minnage value closer.</li> <li>How to anned out ennouncements to y How to network your scheduler's angle.</li> <li>How to mether your scheduler's angle.</li> </ul>	reatmented perant eta manan rea esta anaberezia alta eta		
	Navigate using the buttons	below:		
	View Teaching Schedule	Manage Students	Manage Cours	e Matorial
	Select an option below:			
	View Registrants	Review Assignments	Manage Annou	noements
	Below is a list of all the stud	dents that are registered for your	classos:	
	1. Sheer Advance	🙂 Managan Nama	Republication data	Silei un
	Class Certs ( LPO1-01 (1)	Statistics and	8-277	5 Yorker
	2050 1.7.5	Att 2002 No. 4	8-758	6 Yoller
	MPARTY ALCOLU	<ul> <li>A1998 10.04</li> </ul>	10.077	6 Yullet
	MOD - CAN	<ul> <li>Benefitik Alton r.K.r.</li> </ul>	8-200	611064
	Elines Code : 197501-01 (5)			
	il Class Carle ( 8P01-01 (0)			

## Figure 112: Instructor Area – View Teaching Schedule

							WRIGHT Gabriel 👻
hydro	ဖြ ne						
Registration	Students	Instructors	Admins				
Pack to PAC Job Aids	Registr	retion + Review I	usignments.				
(å Bassiry in Ilij 20 fille Geber	Instru - Kor fr - Kor fr - Kor fr	TRUCTOR	ncheriale that are registe ur course malle mante to your o ta' easignmant	rind Leasense		Contact U	5
	V	ate using the t ew Teaching S t an option bell View Registra	chedule	Manage	Students	Manage Course I	
	Below	is a list of all	your studer	Tabl' loss in the let being or your dana-tis andgens adouts white your danaed offset assignment is	ubmissions:		
	i nit	Coarso Namo	Uluss Lotla	Ang must Yang	faces serve data	10 Mudael Karne	Norman Unite
	H H H H	Providing Resident (1) The Next 1 The Alexandro The Alexandro Distributions Distributions The Alexandro The Alexandro T		Notes and S Notes and S Notes and S Notes and S Notes and S Notes and S Notes and S	ANY MAY SUCKET SUCKET SUCKET ANY MAY ANY MAY ANY MAY	<ul> <li>Martin Carlos</li> <li>Parte Na</li> <l< th=""><th>2/2/1001 2/2/1001 2/2/2001</th></l<></ul>	2/2/1001 2/2/1001 2/2/2001

#### Figure 113: Instructor Area – Manage Students

hydro	.0			
iyur	one			
gistration	Students Instructors	Admins		
in PAC Alth	Registration + Manage Ann	cuncements		
nays into 10 m	INSTRUCTOR AF	EA	Contact	: Us
ESte Connet	Instructions:			
	<ul> <li>Boss to ofner year beeching ach</li> <li>Boss to ofner the schemetric field</li> <li>Boss to uplied / manage year is</li> <li>Boss to wand autometric duration</li> <li>Boss to wand autometric duration</li> <li>Boss to wand water duration</li> <li>Boss to make year autometric</li> </ul>	are registered for your classes surse material to to your classes		
	Navigate using the but	ons below:		
	View Teaching Sche	dule Manage Stud	Manage Cours	e Material
	Select an option below:			
	View Registrant	s Review Assign	nents Manage Annus	uncements
	Option 1: Create a new	announcement using the but	on below:	
		Create A New Anno	uncement	
		st announcements in the list t		
	<ul> <li>Felt: Counte Name</li> <li>Monodan Sciala 1</li> </ul>	C ass Cone 1991 5	S. bject	Date trueet.
	<ul> <li>Information Search 1</li> </ul>	1904 6.	Automatica Press	5-3:900.
	<ul> <li>Johnnation Searces 1</li> </ul>	1504 C.	And an event of Selations Transit	2-1-962.

#### Figure 114: Instructor Area – View Registrants

Finish Flow >

					WRIGHT
ydr <mark>o</mark>	(C) ne				
stration	Students Instructors	Admins			
NRC N	Registration + Manage C	ourse Material			
disc the s	INSTRUCTOR A	REA			Contact Us
n Centert	Instructions:				
	- Line is deep the statest if it	Ittons below:	a shares	_	e Course Material
			Uplead Course Docume	ants	
	Option 2: Edit each d	ocument's cou	rse code, type, and visi	bility to students	via the table below:
	Automatical inferior	PRATS (A.			
	5.44 Hold 7 11711	P10313-14-			
	5.44144.7 -1111 (5.21 - 1111)	PRESID			
	0.71 x1910	P1015-0-			

## Figure 115: Instructor Area – Review Assignments



## Figure 116: Instructor Area – Manage Announcements



Figure 117: Instructor Area – Manage Course Material – Edit (1)

Figure 118: Instructor Area – Manage Course Material – Upload (1)

Figure 119: Instructor Area – Manage Course Material – Upload (2)

	WRIGHT Gabriel 🔹		WRIGHT Gabriel 👻				WREG
dro <mark>se</mark>	hydro		hydr	one			
ation Students Instructors Admins	Registration Stur	lesis Instructors Admins	Registratio	Students Instructors	Admins		
Registration + Course Material: Upload Multiple Documents	Partic Lis PAL Tels Adds	gistration + Course Material	There is PAC Adv Adv	Registration + Manage Cou	rse Material		
Trype         Name         Size         Status           view         Assignment 3 - hTS01         294 KB         Dome           Assignment 4 - HTS01         310 KD         Dome	🚯 haaring an Bij Aaran Gereer		$\frac{\partial Q}{\partial t} = \int dt  dt  dt  dt  dt  dt  dt  dt$	Instructions:	risia	G	ontact Us
Assignment 5 - FTS01 405 KB Done		Your Documents Were Uploaded Successfully! Back to Instructor Page			surna rivetariai In lo yaur chanana angyernari salorinasiona angyernari salorinasiona angyerna hiddan/aiaibhe to abodenta		
3 but of 3 Nor uploaded Total upload stor: 1006 K8				Navigate using the butt View Teaching Sche		nts Manage	Course Material
				Option 1: Upload new c	ourse documents using the bu	ton below:	
	Gverwrite existing files				Upload Course Do	uments	
	Done Cancel			Option 2: Edit each doc	ument's course code, type, an	I visib≣ty to students v	ia the table below:
				E farme	Increase Case	Decument Type	Words to Dudence
				A According to the second seco	NUMBER 1991		
				Quinter and the service	20.2013/01/2012		
				A contention	10.001.000 antist		
				Q CAL MINI	N. 461 page - 1930		
				Q as a set of the set	N. (P. 14 p. 1730)		
				4 Action of the second	10.00 and 10.000		

Figure 120: Instructor Area – Manage Course Material – Upload (3)

Figure 121: Instructor Area – Manage Course Material – Upload (4)

Figure 122: Instructor Area – Manage Course Material – Edit (2)

4/19/2021

User Experience Design Report P&C Training Site

Page 67 of 112



					WRIGHT GE
/dro	(4				
'aro					
	iic .				
ration	Students Instructors	Admins			
ac.	Registration + Manage C	ourse Material			
ing Bit	INSTRUCTOR A	REA			Contact Us
Content	Instructions:				
	Bow to upbed/manage yee     Bow to exclude year address     Bow to excluse year address     Bow to excluse year address     Bow to excluse year address     Navigate using the bu     View Teaching Sci	ints to your dased int solutions hidden/vis int solutions hidden/vis inttorns bolow: hedule	ble to students Manage Students		e Course Material
		Uc	load Course Docum	ients	
	Option 2: Edit each d	ocument's course	z code, type, and vi	sibility to students	via the table below:
	G Planner 1 - HIN1	10.00 1010	*1*2*	2.41.41	
	A delares 7 HPE	78.0K13.0M	479.21	3.44 million	
	d on ret.	NUK SING	1752.	61.4	
	d Gr 101.	PLAK Server	1756.	61	
	<ul> <li>Series nem staskaser - mittel</li> <li>Series nem staskaser - mittel</li> </ul>	PELIX INVE		Solution	

					WRIGH	IT Gabi
	~					
hydro	(4)					
hydro	$\sim$					
· · ·	one					
Registration	Students Instructors	Admins				
Nock to 4900						
vb Acb	Registration + Manage C	ourse Material				
	INSTRUCTOR A	DEA		_		
🖧 Scoyding Bin	INSTRUCTOR A				Contact Us	
fig 41 Statutes	Instructions:					
	- How to view your teaching a	shedale				
			ar dasses			
	<ul> <li>How to splead/manage you</li> <li>How to send out announces</li> </ul>	ents to your classes				
	<ul> <li>How to review your student:</li> <li>How to make your assignment</li> </ul>	F assignment submission of solutions hidden/vis	05 Meto students			
	Navigate using the bu	ttons below:				
	View Teaching Sch	redule	Manage Students	Manag	Course Material	
	Option 1: Upload new	course documer	its using the buttor	below:		
			1			
		Up	load Course Docum	ients		
	Option 2: Edit each d	ocument's course	code, type, and vi	sibility to students	via the table below:	
	E koma	Enstr. de r	Ceurso Cece	Excurrent Type	Visible to Students	
	Q Suprest Store	ATM VEF.	HENRIG	factorial and	45	
	A harmont with	MIMARY	HTSU	for galant		
	A Sectional	NUM Service	HTSG	34	39	
	Ch. Ball a Hilling	POLAS Demane	HESO	34	71	
		HOLDING THE FAMILY	HERE'S	22,210	145	
	A suprover is in one officer A support of a concellation	ALM 91 61	HDMS	10.000	75	

Finish Flow >

Figure 123: Instructor Area – Manage Course Material – Edit (3)

Figure 124: Instructor Area – Manage Course Material – Edit (4)

4/19/2021

User Experience Design Report P&C Training Site Page 68 of 112



## **Notification Profile Form**

## **User Flow Screens**

••		Profile ID: 3
Step 1: Fill in the	notification preferences (What is this?)	
User Name		1 V
Get Notification 1	Yes	•
Get Notification 2	Yes	•
Get Notification 3	Yes	•
Get Notification 4	Yes	•
Get Notification 5	Yes	•
Get Notification 6	Yes	•

Step 1: Fill in the	notification preferences (What is this?)	Profile ID:
User Name	SHARMA Pankajkumar	, 
Get Notification 1	No	
Get Notification 2	No	•
Get Notification 3	No	-
Get Notification 4	No	•
Get Notification 5	No	•
Get Notification 6	No	•

# hydro

User Name	HAINES Crystal	<b>.</b>
Get Notification 1	No	
Get Notification 2	No	
Get Notification 3	No	
Get Notification 4	No	
Get Notification 5	No	
Get Notification 6	No	

Figure 127: Notification Profile Form – Edit (1)

Figure 125: Notification Profile Form - New (1)

Figure 126: Notification Profile Form - New	,
(2)	

•		Profile ID: 2		
Step 1: Fill in the notification preferences (What is this?)				
User Name	HAINES Crystal	1×10		
Get Notification 1	Yes	•		
Get Notification 2	Yes	•		
Get Notification 3	Yes	•		
Get Notification 4	Yes	•		
Get Notification 5	Yes	•		
Get Notification 6	Yes	•		

Step 2: Save Changes Figure 128: Notification Profile Form – Edit (2)

4/19/2021

User Experience Design Report P&C Training Site Page 69 of 112



## **Email Notifications**

#### **User Flow Screens**

	<u>HydroOne.com)</u> dd a new class to the class list. To add a new class, click here: es/es/1212/J003/GabrielSandbox	
Upcoming Classes		
Course Details	Please contact your administrator by clicking the "Contact Admin" button	
Course Code	LP01	
Course Name	Line Protections I	
Prerequisites	N/A	
Duration	2 weeks	
Recommended For	New Hires, Seasoned Designers	
Description	totion Basic Principles: - Distance - Differential - DCB - Pott	
	W LP01_Course_Outline.docx	





Figure 129: Admin – New Class Required (1) Figure 130: Admin – New Class Required (2)

5	From •	Gabriel-Wright@HydroOne.com
Send	То	PCSUPPORT@HydroOne.com
	Cc	
		P&C Training Site - Contact Us
H Admir	).	
was wr	indering if s	we could consider creating a course that covers SCADA, DMS points, and TIB Exemptions?
		we could consider creating a course that covers SCADA, DMS points, and TIR Exemptions?
Many th	anks,	we could consider creating a course that covers SCADA, DMS points, and TIR Exemptions?
I was wo Many thi Gabriel Y	anks,	we could consider creating a course that covers SCADA, DMS points, and TIR Exemptions?
Many th	anks,	ve could consider creating a course that covers SCADA, DMS points, and TIR Exemptions?
Many th	anks,	ve could consider creating a course that covers SCADA, DMS points, and TIR Exemptions?
Many th	anks,	we could consider creating a course that covers SCADA, DMS points, and TIR Exemptions?
Many th	anks,	we could consider creating a course that covers SCADA, DMS points, and TIR Exemptions?
Many th	anks,	we could consider creating a course that covers SCADA, DMS points, and TIR Exemptions?
Many th	anks,	we could consider creating a course that covers SCADA, DMS points, and TIR Exemptions?
Many th	anks,	ee could consider creating a course that covers SCADA, DMS points, and TIR Exemptions?
Many th	anks,	we could consider creating a course that covers SCADA, DMS points, and TIR Exemptions?
Many thi Sabriel Y	anks, Wright	
Many thi Sabriel Y	anks, Wright bil and any	we could consider creating a course that covers SCADA, DMS points, and TIR Exemptions?

## Figure 133: Admin – Contact Us (2)

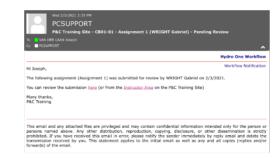
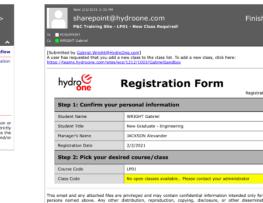


Figure 136: Instructor – Assignment – Pending Review



Insidential and any accurate meal are privilegite and may contrain connectional information internates only for the person to persons named above. Any collect distribution, reproduction, polynia, disclosure, or other dissemination is strictly prohibited. If you have received this email in error, please notify the sender immediately by reply-email and delete the transmission received by you. This statement applies to the initial email as well as any and all copies (replies and/or transmission received by you. This statement applies to the initial email as well as any and all copies (replies and/or transmission received by you. This statement applies to the initial email as well as any and all copies (replies and/or transmission received by you. This statement applies to the initial email as well as any and all copies (replies and/or transmission received by you. This statement applies to the initial email as well as any and all copies (replies and/or transmission received by you. This statement applies to the initial email as well as any and all to please (replies and/or transmission received by you. The initial and the statement as the statement applies to the initial email as well as any and all to please (replies and the initial emails and the statement applies to the initial email as well as any and all to please (replies and the statement applies to the initial emails and the statement applies to the initial email as well as any and all to please (replies and the statement applies to the initial emails and the statement appl

\* V **\*** W iii

Figure 131: Admin – New Class Required (3)



Figure 134: Admin – Technical Difficulties (1)

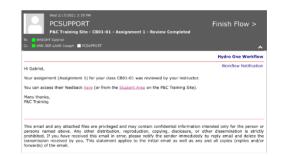


Figure 137: Instructor – Assignment – Review Completed

Wed 2/3/2021 2:35 #M PCSUPPORT P&C Training Site - HTS01-01 - Record of Completion	Finish Flow >
To WRIGHT Gabriel Cc. PCSUPPORT	
	Hydro One Workflow
Hi Gabriel,	Workflow Notification
You have succesfully completed the class HTS01-01 instructed by POLAK Janusz o	in 2/3/2021.
To view your other records of completion visit the Student Area on the P&C Training	ng Site.
Many thanks, P&C Training	
This arreal and any attached files are privileged and may contain confidential info persons normal above. Any ether distribution, reproduction, conjung, dicko privilited. If you have received the small is nerco, plases notify the semicorrel transmission received by you. This statement applies to the initial email an ave forwards) of the email.	ure, or other dissemination is strictly mediately by reply email and delete the



## Figure 132: Admin – Contact Us (1)



Figure 135: Admin – Technical Difficulties (2)

PBC Training Site - HTS01-01 - Assignment 1 - Submission Confirmation     WHENHT Gabrel     C = #GSUPPORT				
	Hydro One Workflow			
Hi Gabriel,	Workflow Notification			
/our assignment (Assignment 1) for your class HTS01-01 was successfully sub	bmitted to your instructor for review.			
our submission form can be accessed here (or from the Student Area on the	P&C Training Site).			
ou'll receive a follow-up email notification when they review and provide feed	tback on your work.			
Many thanks, &C Training				
This email and any attached files are privileged and may contain confidential persons named above. Any other distribution, reproduction, copying, discuss prohibited. If you have necelved this email in error, please notify the sender transmission received by you. This statement applies to the initial email as overadd) of the email.	closure, or other dissemination is strictly immediately by reply email and delete the			

Figure 139: Admin – New Class Required (4)

ivdro One W

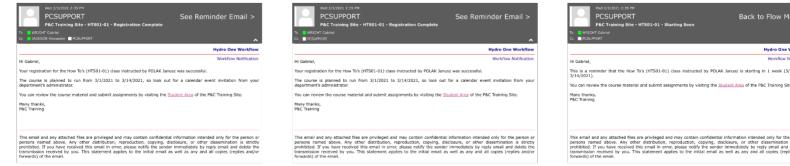


Figure 141: Student – Registration Complete (1)

#### Figure 142: Student – Registration Complete (2)

# Figure 143: Student – Reminder

4/19/2021

User Experience Design Report P&C Training Site

Page 70 of 112



# Style Guide

Displayed below is the visual user interface guidelines for the P&C Training Site, they are followed and executed as shown below without any variation from these guidelines.

## Logo

Hydro One Networks Inc. logo is available in horizontal direction. There is no other variation used in this project.

Logo file pathway: <u>HONI\Logo</u>



Figure 144: Primary Logo



## Color

The primary colors were selected by using the eyedropper tool in the <u>Sketch</u> design software to determine each Hex color code, each color is shown in the figure below and are as follows:

- Red: #FF0000
- Black: #000000
- White: #FFFFFF



Figure 145: Primary Colors

The secondary colors were approximated by analyzing the Hydro One's standard SharePoint theme, Microsoft Outlook theme, and Nintex Workflow notifications theme to come up with a set of colors that would be commonly seen by an employee at Hydro One. Each color is shown in the figure below and are as follows:

- Grey: #C0C0C0, #A0A0A0, #757575, #5C5C5C, #434343
- Turquoise: #DAE7EE, #7DA8BE, #4797C0
- Navy Blue: #8E8CA8, #130F88
- Purple/Maroon: #C0488B, #8B0F0F
- Green: #00FF0D
- Yellow: #FDFF00

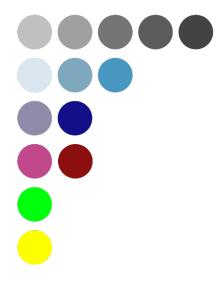


Figure 146: Secondary Colors



# Typography

**Verdana Font Family:** Used for labels, paragraphs, bullets, titles, form inputs, emails, tables, hyperlinks, groupings in SharePoint. Verdana (regular) font is primarily used for body, paragraph, and form input text, whereas the Verdana (bold) font is used for headings, titles, labels, and hyperlinks.

Verdana (44 pt.)

Verdana (28 pt.)

Verdana (24 pt.)

Verdana (18 pt.)

Verdana (16 pt.)

Verdana (14 pt.)

Verdana (12 pt.)

Figure 147: Font Family (Regular)

# Verdana Bold (36 pt.)

Verdana Bold (20 pt.)

Verdana Bold (18 pt.)

Verdana Bold (14 pt.)

Figure 148: Font Family (Bold)



## Iconography

#### Examples of each icon's usage in the high-fidelity prototype (see figure below):

- 1. Breadcrumbs navigation in SharePoint site
- 2. Dropdown control in the various forms
- 3. Date picker control in the various forms
- 4. User–check control in the various forms
- 5. Open the user directory for a people picker control in the various forms
- 6. Send icon for the contact us/technical difficulties email notification
- 7. Help icon for the grant permissions modal
- 8. Expand to full screen icon for the grant permissions modal
- 9. Close the dialog icon for the grant permissions modal
- 10. Attachment icon for the various forms
- 11. Wait for changes to finish updating/recycling bin icon SharePoint site
- 12. Add new row to datasheet for SharePoint site
- 13. Access icon for datasheet and upload multiple documents icon for SharePoint site
- 14. Edit icon (version 1) for SharePoint site
- 15. Delete icon for item dropdown field in SharePoint site
- 16. User profile icon in email notification
- 17. User profile icon in the SharePoint site
- 18. People picker field icon in SharePoint site
- 19. Checkbox icon in the various forms
- 20. Edit icon (version 2) for SharePoint site
- 21. All Site Content icon for SharePoint Site
- 22. Collapse icon in email notifications
- 23. Expand icon for item groupings in the SharePoint site
- 24. Collapse icon for item groupings in the SharePoint site
- 25. Dropdown control for an item in the SharePoint site
- 26. Online user status icon for email notifications/SharePoint site
- 27. Offline user status icon for email notifications/SharePoint site

#### Icons imported into <u>Sketch</u> from <u>FontAwesome</u> via 5.15.1 designer pack (see figure below):

• 1, 2, 3, 4, 5, 6, 10, 11, 13, 14, 20, 21, 22, 25

#### Icons created using <u>Sketch</u> design software (see figure below):

• 7, 8, 9, 12, 15, 16, 17, 18, 19, 23, 24, 26, 27



۲	•		<b>*</b>		5	?		Х
1.	2.	3.	4.	5.	6.	7.	8.	9.
Ø	٤Ĵ	*		ľ	$\times$	P	2	
10.	11.	12.	13.	14.	15.	16.	17.	18.
$\checkmark$		ſ.	^	+				
19.	20.	21.	22.	23.	24.	25.	26.	27.

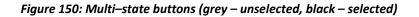
Figure 149: Icons



## **Buttons**

Many of the navigation buttons used on the P&C Training Site have two states (unselected/selected), depending on which page the user is accessing. As the users interact with the high–fidelity prototype, the button changes color to indicate to the user where they are within the site's navigation. These buttons are outlined in the figure below.

Your Classes	Your Assignments	View Course Material	View Submissions
1. Your Classes 5.	2. Your Assignments 6.	3. View Course Material 7.	4. View Submissions 8.
View Teaching Schedule 9.	Manage Students	Manage Course Material	View Registrants
View Teaching Schedule	Manage Students	Manage Course Material	View Registrants
Manage Announcements	Manage Courses	Manage Classes	Manage Registration
Manage Announcements 21.	Manage Courses	Manage Classes	Manage Registration
Register Multiple Users	Search Records	Manage Workflows	Manage Notifications
Register Multiple Users	Search Records	Manage Workflows	Manage Notifications
Manage Permissions	Review Assignments	View Solutions	Edit Workflow
Manage Permissions	Review Assignments	View Solutions	





Some of the buttons used on the P&C Training Site are single–state (unselected) and upon clicking any of these buttons, the user is either redirected to an email notification, form, permission list, document upload page, workflow editing/scheduling page, or an action is triggered (i.e. search/clear refreshes the page). These buttons are outlined in the figure below.

	Create A New Announcement	
40.		
	Upload Course Documents	
41.		
	Create A New Course	
42.		
	Create a New Class	
43.		
	Create Notification Profile	
44.		
Contact Us	Submit an Assignment	Contact Us
45.	46.	47. 48.
Register A User	Schedule Workflow	Register Now
49.	50.	51. 52.
Add/Remove Student	Add/Remove Administrator	Add/Remove Instructor
53.	54.	55.

Figure 151: Single-state buttons (grey - unselected)



# **Usability Testing**

## Objective

To determine if each user group (student, instructor, and administrator) is able to accomplish their goals when navigating the high–fidelity prototype.

## **Testing Participants**

Three participants were selected, one from each user group (student, instructor, and administrator) and recruited after receiving permission from their manager to participate in the testing exercise.

## **Testing Methodology**

Usability tests were 30 minute meetings that were conducted remotely via WebEx. Before the meeting, each user was provided with a link to the interactive prototype that could be launched in the browser. Once opened, the UX designer asked for permission to record the audio/video for the session and each user was given a usability testing script that was unique to their user group. Once the session concluded, each participant was thanked and the user's feedback was incorporated into the design revisions.



## Test Script (Student):

Flow 1: Search the course list on the registration page for a course that offers "EWD" and viewing the search results

Flow 2: Using the search results, check the available classes for that course

Flow 3: Find an available time slot, and begin the registration for the class HTS01–01

Flow 4: Check your email for the submission confirmation

Flow 5: Contact the administrator with a question (from the home page)

Flow 6: Look for available classes for the course LPO1 and notify the administrator if there's none available

Flow 7: Register for a course without needing to browse the course details (i.e. you already know the course code is LPO1 but there's no classes available, so contact the admin)

Flow 8: Check your course records to see if your registration for the class HTS01–01 was successful

Flow 9: Find the course material for the course HTS01 and open Assignment 1

Flow 10: Submit your Assignment 1 for the course HTS01 and check to see if it was received by the system

Flow 11: Check to see if the instructor has reviewed your assignment (Assignment 1 for the class CB01–01), and if so, check their feedback and close the form

Flow 12: Contact the administrator with your question

Flow 13: View the solution to Assignment 1 that your HTS01–01 instructor posted on the P&C Training Site



## Test Script (Instructor):

- Flow 1: View your teaching schedule
- Flow 2: View your student list to see which student are registered for your classes
- Flow 3: Upload your course material

Flow 4: Assign your newly uploaded course material to the appropriate course code (HTSO1) and make it visible to your students

Flow 5: Send out an announcement to your class (HTS01–01) and tell them that new course documents have been uploaded

Flow 6: Review your student's assignment (Assignment 1 by WRIGHT Gabriel and provide feedback)

Flow 7: Contact the administrator with a question using the site

Flow 8: Review your past announcements and open up the welcome message for your class (IS01–01)



## Test Script (Administrator):

Flow 1: Receive an email notification (from course form) and creating a new class based on student interest

Flow 2: Receive an email notification (from registration form) and creating a new class based on the student interest

Flow 3: Add a new class from the home page (add LP01–01)

Flow 4: Add a new course from the home page (add BP01: Bus Protections I)

Flow 5: Edit an existing class from the home page (change the instructor for HTS01–01)

Flow 6: Edit an existing course from the home page (edit HTS01 and change the "Recommended for" field)

Flow 7: Delet an existing class from the home page (delete HTS01–04)

Flow 8: Delet an existing course from the home page (delete HTS01)

Flow 9: Search for a user in the registration list (search for Gabriel)

Flow 10: Export student records to an excel document

Flow 11: Register a student on their behalf (register WRIGHT Gabriel in the class HTS01–01)

Flow 12: Register/edit multiple students records on their behalf (register WRIGHT Gabriel in LP01–01, BP01–01, and CB01–01 and enable automatic notifications)

Flow 13: Delete multiple student's registration records

Flow 14: Create a user notification profile (disable all notifications for SHARMA Pankajkumar)

Flow 15: Edit an existing notification profile (enable all notifications for HAINES Crystal)

Flow 16: Add a user to the student permission group (add HAINES Crystal)

Flow 17: Add a user to the instructor permission group (add HAINES Crystal)

Flow 18: Add a user to the admin permission group (add HAINES Crystal)

Flow 19: Remove a user from the student permission group (remove WRIGHT Gabriel)

Flow 20: Remove a user from the instructor permissions group (remove WRIGHT Gabriel)

Flow 21: Remove a user from the admin permission group (remove WRIGHT Gabriel)

Flow 22: Edit the Registration 1 workflow

Flow 23: Edit the Registration 2 workflow

Flow 24: Edit the Registration 3 workflow



- Flow 25: Edit the Registration 4 workflow
- Flow 26: Edit the Assignment 1 workflow
- Flow 27: Edit the Announcement 1 workflow
- Flow 28: Contact the developer because of technical difficulties

Flow 29: Check your email for a notification signifying that a class has reached the minimum threshold of applicants (5 applicants) and sessions can booked in students'/instructors' calendars.

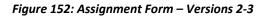


## **Usability Testing Findings**

## **Student Feedback**

During the usability testing session, the participant indicated that it was difficult to remember the course code when filling in the dropdown field of the assignment form, or navigating the course material page. The participant suggested that it would be better if the course name was used rather than the course code. As a result, the changes were implemented as outlined in red below.

hydro <mark>©ne</mark>	Submission Form	hydroone	Submission Form
Step 1: Fill in the	class details	Step 1: Fill in the	class details
Student Name	WRIGHT Gabriel	Student Name	WRIGHT Gabriel
Course Code	HTS01	Course Name	How To's 🗸
Class Code	HTS01-01 V	Course Code	HTS01
Instructor Name	POLAK Janusz	Class Code	HTS01-01
Step 2: Fill in the	assignment details	Instructor Name	POLAK Janusz
Assignment Name	Assignment 1	Step 2: Fill in the	assignment details
Attachment	W HTSO1-01_Assignment1.docx	Assignment Name	Assignment 1
Submission Date	5/2/2021	Attachment	S HTSO1-01_Assignment1.docx
Student Comments	N/A	Submission Date	5/2/2021
Step 3: Confirm y	our notification preferences	Student Comments	N/A
<ul> <li>Notify the inst</li> </ul>	- tructor via email that I've submitted my assignment with a link to this form	Step 3: Confirm y	our notification preferences
	Step 4: Submit Assignment	<ul> <li>Notify the inst</li> </ul>	ructor via email that I've submitted my assignment with a link to this form
			Step 4: Submit Assignment



		WRIGHT Gabriel 👻		WRIGHT Gabriel 👻
hydro	() ne		hydro	
Registration	Students Instructors Admins		Registration Students Instructors Admins	
Parix te PAC Job Alds	Registration + View Course Material		Rev kite PBC Registration + View Course Material	
A Recycling Bin No. A Little Content	STUDENT AREA Instructions: - Now to viden your class bittery - Now to viden you class and the second	Contact Us	Article in the second sec	Contact Us
	Navigate using the buttons below:		Navigate using the buttons below:	
	Your Classes Your Assignments	View Course Material	Your Classes Your Assignments V	ew Course Material
	Below is a list of course documents that are posted and man can open a file by clicking the document name in the "Name	de visible by your instructors, you " column:	Below is a list of course documents that are posted and made visible by can open a file by clicking the document name in the "Name" column:	your instructors, you
	X	Zocurranti yaa 💷 teete stor kaese	tanz	decarriery, fispat
	III Course Code : 1990. Forget : Top: 1 Top: 1 Top: 1 Top: 1 Top: 1 Top: 2 Top: 2 Top		(Clause Rem: Line For August) August) August August Home Rems: Line Protection 1 (Clause Rems: Line Protection 1	Singen of Git Jingen of Git
	Course Code : LP01		Gourse Name : Cap Bank T     Hi Gourse Name : Feeder Protestion X	
	E Course Cede : CB01		Course Nerre : Breaker Feilure I	
	Course Code ( FP0)		Course Name : LV Bos I	
	III Course Code : 8F01		H Course Name : DC & AC Systems	
	II Course Code : LS01		Course Nerre : Trensformer Protection I	
	Course Code : DA01			
	≅ Course Code : TP01			
	E Course Cede : LP02			
	□ Course Code : 1P03			

Figure 153: Student Area - View Course Material - Versions 2-3



#### Instructor Feedback

During the usability testing session, the participant indicated that classes having the "open" or "closed" status may lead to confusion when users are accessing the course summary form, or viewing their teaching scheduled in the instructor area. The participant suggested that it would be better to use the terms "open enrollment" and "closed enrollment". As a result, the changes are outlined in red below.

hydro <mark>one</mark>	Course	e Sun	nmary	Edit Details	hydro <mark>one</mark>	Course	e Sum	mary	Edit
Step 1: Browse u	pcoming classes				Step 1: Browse up	pcoming classes			
Class Code	Start Date	End Date	Instructor Name	Status	Class Code	Start Date	End Date	Instructor Name	Status
HTS01-01	3/1/2021	3/14/2021	POLAK Janusz	Open	HTS01-01	3/1/2021	3/14/2021	POLAK Janusz	Open Enrollment
HTS01-02	6/1/2021	6/14/2021	VAN DER LAAN Joseph	Open	HTS01-02	6/1/2021	6/14/2021	VAN DER LAAN Joseph	Open Enrollment
HTS01-03	9/1/2021	9/14/2021	POLAK Janusz	Open	HTS01-03	9/1/2021	9/14/2021	POLAK Janusz	Open Enrollment
HTS01-04	12/1/2021	12/14/2021	VAN DER LAAN Joseph	Open	HTS01-04	12/1/2021	12/14/2021	VAN DER LAAN Joseph	Open Enrollment
Step 2: Review co	ourse details				Step 2: Review co	ourse details			
Course Code	HTS01				Course Code	HTS01			
Course Name	How To's				Course Name	How To's			
Prerequisites	N/A				Prerequisites	N/A			
Duration	2 weeks				Duration	2 weeks			
Recommended For	New Hires, Se	asoned Designe	irs		Recommended For	New Hires, Se	asoned Designe	rs	
Description	3. Project Ove	d EWDs, CWDs rview: Stage G in general ove	ates-ARs- EMPP, DETL view?		Description		i EWDs, CWDs rview: Stage Gi in general over	ates-ARs- EMPP, DETL view?	
Course Outline	🕲 нтsо1_0	Course_Outlin	e.docx		Course Outline	<b>%</b> HTSO1_0	Course_Outline	e.docx	
	Step 3: B	Begin Regi	stration			Step 3: E	legin Regi	stration	

Figure 154: Course Form - Versions 3-4

Students Instructors	Admins								
					Registration	Students Instructors Ada	nins		
Registration + View Teaching	Schedule				Book to PAC Job Aids	Registration + View Teaching Se	hedule		
INSTRUCTOR ARE	A		Contac	t Us	A Revelue Bin	INSTRUCTOR AREA		Con	tact Us
Instructions:					In All Site Content	Instructions:			
<ul> <li>How to view your teaching schedu</li> <li>How to view the students that are How to view the students that are How to upload/message your cour- How to and out amountaments to How to review your students' assi How to make your students' assignment set</li> </ul>	registered for your classes se material to your classes ignment submissions	nts				<ul> <li>Have to view your teaching schedule</li> <li>Have to view the students that are re- ensure to uphost/manage your course</li> <li>Have to uphost/manage your course</li> <li>Have to send out amouncements to g</li> <li>Have to review your students' assign</li> <li>How to make your assignment soluble</li> </ul>	naterial our classes nent submissions		
Navigate using the button	is below:					Navigate using the buttons	below:		
View Teaching Schedu	ile Manage	e Students	Manage Cour	se Material		View Teaching Schedule	Manage Students	Manage Co	urse Material
Below is a list of all the cl	asses that you're sche	eduled to teach:				Below is a list of all the clas	ses that you're scheduled to tea	ich:	
<ul> <li>Course Name</li> </ul>	Class Codo	Start Date	End Date	Instructor		Course Name	Class Code	Stort Date	Brd Deta
Status : In Progress (1) EC6 33 System						E Status : In Progress (1)			
	1811-01	215401	2716401	VALUES TANK ROOM		DC X 4C Systems	12013-01	142.10	17 Mar 1
						H Status : Open Enrollment (4)			
∃ Status : Open (4)									
H Status : Optn (4)	1068-02	3143421	5/89/0004	VAN DER LAN Saugh		Internation Section 1	1501-32	2/34/2021	3/25/2621
E Status : Open (4) Situratio Social : Esc Trip	ITS21-01	41.63421	6/23/0401	<ul> <li>Veli DEI: LANK Samph</li> </ul>		Haze To's	IE521-66	2/8-/2021	4/15/242
H Status : Optn (4)									
Status : Open (4) Status : Open (4) Is - To Is - To Its - To Its - To Its - Exercise 1 Research - 1 Research - 1	10523-04 (201-71	47.4582. 47.6582	6/23/0601	<ul> <li>Wei Diffe Länk Sough</li> <li>Wei Diffe Länk Sough</li> </ul>		Have Talk Line Protection 7 Have Protection 1	IRS21-04 1201-01	54-2001 524-2001	4/15/002. 9/15/002
H Status : Open (4) Status in Social E 20 Tel Line Forencia: 1 Host Status : Cloved (4)	1952-04 (961-71 (991-67	6: 63621 6: 63621 17: 6762	1/2010/001 6/2/2/201 6/2/2/201	<ul> <li>Ven COR Land Sungh</li> <li>Ven COR Land Inseph</li> <li>Ven COR Land Inseph</li> <li>Ven Land Land Inseph</li> </ul>		liss 1:4 I or 1-metion 7 See A section 1 Status I Closed Enrollment (1)	1822-06 1991-01 1991-01	-2009000 2007000 2007000	425.000 425.000 125.000
Status : Open (4) Status : Open (4) Is - To Is - To Its - To Its - To Its - Exercise 1 Research - 1 Research - 1	10523-04 (201-71	47.4582. 47.6582	6/23/0601	<ul> <li>Wei Diffe Länk Sough</li> <li>Wei Diffe Länk Sough</li> </ul>		Have Talk Line Protection 7 Have Protection 1	IRS21-04 1201-01	54-2001 524-2001	4/11/202. 9/11/202
	17523-04 1996-01 1997-07 1997-07	6: 6362 6: 6362 69: 6362 69: 6362	6/39/6691 9/39/6691 1/2/469671 2/39/6691	<ul> <li>Sen Stitt Lack Sangh</li> <li>Sen Stitt Lack Sough</li> <li>Sen Stitt Lack Sough</li> <li>Sen Sen Sen Sough</li> </ul>		iko Tzk Lini krostko ( 1) States Closed Enrollment (4) Copisci (	18521-46 (24)-31 (24)-51 (24)-61		4/19/2022 4/19/2022 19/2022
Status I Open (4) Status I Open (4) Status I In Social I De Ferreirs I Robert Robi Status I Cleaned (4) Folder I Status Folder I Status I	17523-04 (201-2) (201-2) (201-2) (201-2) (201-2)	6145481 6145481 631640 631640 815460	6/25/2681 9/25/2691 1/22/26997 2/25/2697 6/21/26/23	<ul> <li>Verti CCP, LAAN Seegel</li> </ul>		Has hit I or insertion 7 for A contrast Status - Conset Enrollment (4) Top have 1 Production (1)	1822-44 191-61 1910 - 1 1911 - 10 1911 - 10	294-2023 - 2014-2023 - 2014-2023 - 2014-2023 - 2012-2014 - 2012-2014 - 2012-2014 - 2012-2014 - 2014-2015 - 2014-2014 - 2014 - 2014-2014 - 2014 - 2014-2014 - 2014 - 2014-2014 - 2014-2014	4/25/2402. 4/25/2402. 1/22/46/2402. 4/25/2402.
Status I Open (4) Sector Social Lacity Lacity Research Control Research Control Research Control Research Control Research Control Research Resear	1952-441 (461-51) (461-61) - 471-13 (461-44)	62-62601 62-62601 627-62601 627-62601 625-6201 625-6201 625-6201	623(000) 923(000) 1224000 923(000) 923(000) 923(000)	<ul> <li>MAN SCR. SAN Swight</li> <li>MAN SCR. SAN Swight</li> <li>MAN Swight</li> </ul>		Hare Ta's 1 or 2 synamics 1 1 or 3 synamics 1 Bitstee 1 Closed Envoltment (1) 20p root 1 Social Patter, 1 Books Patter, 1 Books Patter, 1	1922-64 1941-64 1940-64 - 932-54 1952-54 1953-55	ga-min ka-min sangata sangata sangat	423,500. 423,500 523,600 47,600 47,600 47,600 53,600

Figure 155: Instructor Area - View Teaching Schedule - Version 1-2



## **Administrator Feedback**

During the usability testing session, the participant indicated that instructors needed to be automatically notified when they were assigned to teach a class through the class form in the administrator area of the site. The participant suggested that an email notification be generated each time that an instructor is assigned to a new class, or the class details (start date, end date, or instructor) change for an existing class. As a result, the email notifications in the figure below were added to the design.

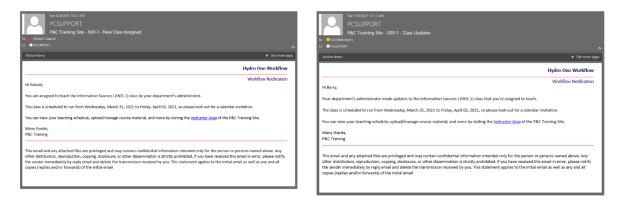


Figure 156: Email Notifications - New Class Assigned/Class Updates



# Lessons Learned

## Perform More User Interviews

It would be helpful in the future to use mental modelling techniques for synthesizing the feedback from usability testing interviews. If the usability testing observations were analyzed more thoroughly, it is possible that more improvements could have been made. Further, if more usability testing sessions were conducted with 3-5 users in each user group, then the degree of confidence in the revisions would be improved. In general, moderating interviews with different user groups using the same set of interview questions was an excellent way to understand the nuances of each user's expectations and applying the same scrutiny to the usability testing portion of the project would be beneficial, if time permits.

#### **Build-in Buffer Time**

It would be beneficial to build buffer time into the project schedule by taking the estimated time required to reasonably complete the methodology outlined in this report and doubling it. Due to this project involving more than one user group, completing eight preliminary research interviews was significantly more labor intensive than initially anticipated. The effort required to plan, interview, transcribe, and synthesize responses into mental models scaled with the number of users that were involved in the research portion of the project. Further, it took additional time to go over the findings, frame each problem statement, and come up with potential solutions that would be feasible with the technology available. Taking into account the time to build the low/high fidelity prototypes and to build interactive usability test flows for each user group, additional time to deal with setbacks and roadblocks would have been appreciated.

#### Improve Stakeholder Communication

It would be useful to set up regular stakeholder check-in meetings for user experience projects tackled in the future. Throughout this pilot exercise, it was challenging to communicate expectations with the various stakeholders due to the first-of-kind nature of this project. As a result, the stakeholders had to undergo long periods of 'radio-silence' while progress was being made in the background. It is recommended that a stage-gate approach be taken to communicating the project timeline, because each UX project follows the same double diamond project structure with a similar series of deliverables to be completed in each phase. It is also recommended that an additional phase be added to the end of the methodology for writing documentation to be provided to the stakeholders upon project completion. By bringing stakeholders into the process and offering updates along the way, it would make it easier to deal with roadblocks and gauge whether the scope of work can be reasonably be accomplished with the time and resources allotted.



# **Conclusion**

The goal of this user experience design exercise was to improve the flow of researching and signing-up for a P&C training course. It was hypothesized by the user designer that there would be three perspectives (student, instructor, and administrator) that would need to be captured in order to fully understand user expectations. To do this, a research plan was developed to gather quantitative survey data to narrow the scope of which registration medium to focus on, and to gather qualitative data to develop an understanding of which factors made for a preferable user experience.

The study consisted of eight research participants that were recruited formally as employees with experience working within the P&C Engineering team. Based on the preliminary user feedback, it was determined that the method of registration that was most popular with users was online registration, and the themes that arose from the discussions fell into five affinity categories: 1. Research & Motivation, 2. Instructor & Course Delivery, 3. Ease of Use & Accessibility, 4. Registration & Follow Up, and 5. Challenges & Expectations. Building upon these themes, an empathy mapping exercise was completed in order to better understand the nuances of each user group's preferences. It was observed that participants fell into four unique personas: 1. The Student, 2. The Minimalist (Instructor), 3. The Customizer (Instructor), and 4. The Administrator.

Analyzing the mental models, sixteen findings were recorded and categorized into user flows that were specific to each user group. Problem statements were developed in order to frame the problem in the context of the user, and potential solutions were postulated by completing "How Might We" statement exercises. Low-fidelity paper prototypes were designed to test user flows, and following several iterations, the high-fidelity prototypes were developed using Sketch/InVision design software. A series of test scripts were developed for each user group that test the effectiveness of the solutions and to identify opportunities for improvement. After conducting three usability testing interviews, each piece of critical feedback was analyzed and suggestions were incorporated into the revised design. Finally, a comprehensive report was written to show the progress through the four phases of the UX Design methodology (Discover, Define, Develop, Deliver), whilst documenting the lessons learned throughout the user experience design journey. As a result of this exercise, the <u>P&C Training Site</u> was built and the tool was rolled-out to staff on April 19, 2021 along with the accompanying <u>Job Aids</u>, and the project was deemed successful.



# **References**

Juno College of Technology. UX Design Curriculum. n.d., <u>https://junocollege.com/course/ux-design</u>



# <u>Appendix</u>

## Preliminary Tag Cloud of Interview Responses (Participant 1)







## Preliminary Tag Cloud of Interview Responses (Participant 2)





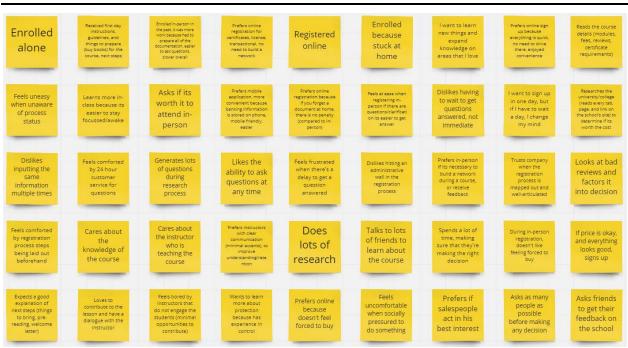
## Preliminary Tag Cloud of Interview Responses (Participant 3)



# Preliminary Tag Cloud of Interview Responses (Participant 4)

The process of emailing the department head was annoying	I picked courses that were more relevant to my work	Registered online	If I didn't apply now, I probably wouldn't have another chance to continue my education	If the course could help me convince my manager that it is a good course to take	If the course could provide me with some talking points to make the case to my manager	Prefers taking internal courses because HONI has their own practices and its more helpful to learn from within the company	Types search into the HONI homepage to see if any internal courses are available	Expects a reminder email, a week before the course date	l don't like the pop-ups
Courses that require department approval are tedious	l also picked hot-topic courses as well	l wasn't aware of any other methods of registration	l wanted to continue my education	Checks myHR to see if any internal courses are available	Checks my team's internal website to see if any courses are planned	Searches Google for Power System Protection training courses	Because we work with Schweitzer a lot, I would check out vendor training links	Expects more information (in reminder emb) about specific location, building, things to bring on first day, what will be provided	If the course is offered internally, its easier to see a calendar of what's available and pick from there
Looks a the course outline	Checks to see if time in schedule to fit in course	Looks at time commitments	The system remembered my personal information	I've heard of the Electricity Forum, and apparently their training is pretty good, so I would probably check out their courses	If I've never heard of a course, I might not check it out	If the price is too high, I move on to something that my manager will approve	Even if my manager probably won't approve it, I look at the curriculum anyway	Its great to see somebody working on this project	Thought that the registration process was pretty streamlined
If I hear about the course by word of mouth, I'll bring it up with my manager	Hitting an extra administrative step deters me from enrolling	I reach out to friends/managers to determine if the course would be helpful for my personal development	l prioritize schedule and interest over the instructor	l evaluate if I can make a good case for the course based on the topics	I take a look at free resources/ recommended reading	Lexplore the vendor websites for seminar or webinars	I look for seminars that are cheaper than a normal course/free	We definitely need a system in place (course platform)	Couldn't think of ways to improve it further
Convinces her manager to let me take the course	Receives an email confirmation	Receives follow up instructions	Receives welcome message for the course	If its a free session, maybe I'll register and try to learn more	This course website is not as easy to go through	The two biggest pieces of information that I'm looking for are time commitment and cost	Time commitment and cost will be the two things that my manager will want to hear about	Expects a formal receipt to do expenses	Doesn't have a work phone
Has always registered online	Has enrolled as a work group through the admin's efforts	If the course necessitates making personal connections, I prefer in-person	If the course is more technical and presented well, I prefer taking it online	Hook at what I'm going to gain from the course, in order to build my case	If I find a course with a manageable price and then reach out to the other new grads to see if we can get a group discount	I take a look at the outline to see if the contents will be applicable to us	I copy down the details and send them to my manager to list them interested in this course and ask permission to cake it.	Expects an email confirmation after registering	Prefers laptop for work-related things





## Preliminary Tag Cloud of Interview Responses (Participant 5)



# Preliminary Tag Cloud of Interview Responses (Participant 6)

Looked at course catalogue	Checks if the company presenting is competent in speaking on a topic	Similar to ordering pizza online	Straightforward form with personal information, courses, total, and credit card info	Couldn't leave the dropdown blank	Dropdown wouldn't recognize Ontario as a valid address	I don't want to go to a course and end up teaching the instructor	Determines if he needs more experience with the course topic	Looks at presentation topic and addresses if it would be useful for their work
If the instructor works for a tiny utility with only 10 customers, I don't know if I'll find their seminar valuable.	Looks for instructors he recognizes/knows	I don't remember the last time that I registered via mail/phone	Invoice/Receipt along with the confirmation	A couple of hiccups	Couldn't submit form initially	Link to a provider for single sign-on	Determines that certain design standards being discussed don't really apply to his work	Assesses if courses address skillsets that he needs to develop
l would have to look into what they do.	If I don't recognize the instructor, I look into their employer	I'm looking for a course with an instructor that's really going to teach me something	Attends certain sessions to just ask difficult questions	Emailed organizers directly notifying that he was out of state	Had to fill out the form again after contacting orgnalzers	Organizers don't need to keep track of personal information	Generally not for corporate- type stuff	History of previously completed courses would be helpful
Interested in testing the delivery platform before the event (i.e. OSPE virtual conference)	Puts in a request to attend course	Receives a receipt	Expects pre- read material to be completed beforehand	A lag between contacting the organizers and getting the form updated	Manually fill in information and break it for non-US students	Should give people the option to sign- in with social media profiles	Auto-filling personal information is helpful	Registration was pretty easy
Expects instructions for how to submit homework assignments	Technical skills development	Receives email confirmation	Proof of payment ensures that when you show up, you won't get stopped at the gate	Looks at the price	Looks at topics being taught	Registered alone	Registration was online	Mail-in option was available
Some companies require PO documentation	Training was in- person	Dependent on subject and nature of content (theory vs. application of theory)	Fairly straightforward	Do I recognize the instructor's name	Looked at course syllabus	Send in written form via snail mail		



# Preliminary Tag Cloud of Interview Responses (Participant 7)

Reminder email a day in advance of the event (webinar)	Registered in- person in the past and would do it again in order to ask questions	If doing an MBA/bechnical certificase, would prefer in-person registration, or on phone to ask questions	The more substantial the course, the more of a preference for human interaction (phone, in-person)	Registered in university on the day	Sometimes there's a lot of traffic and queues	Registered online	Had a week's span to register for courses	Pulls up several course options, and presents findings to managers for their opinion on which to register
If the course is more technical, prefers in- person and helps to stay focused/motivated and held more accountable	If it was an easier course, prefers online	Prefers desktop registration, rarely uses phone anything other than online banking	Prefers the bigger screen, prefers more control over tabs/swapping windows, avoids touchscreen	Registered earlier to get the electives that he wanted	Registered for a Megger webinar for anybody who was willing to learn	Registering was pretty easy	The website wasn't the best, it would crash or I would have to wait a little while because of traffic	Would be open to use mobile if the application is really good, rather than browser
Dislikes when webinar companies hound you after the event with sales (relling transformers)	Preferred if the school was more prepared to handle the traffic of course enrollment	Prefers to opt-in to newsletters/prom otions rather than automatically being signed up	Looks for topics in the course outline that are relevant to work (certain relays)	l liked that you could quickly register for multiple courses at once if you knew the course codes	Sometimes I would have to wait a couple of hours to get onto the site (because of traffic)	l couldn't register because of a bug for a capstone course	Felt nervous incase he wasn't able to get into a course with his friends	The less substantial the course, the more of a preference for a fully-online experience
Factors in the price of the course	Less inclined to pick a education company that he hasn't heard of before	Prefers taking a course from a university	Prefers doing a course online, so that it fits into full-time work schedule	I reached out to the course coordinator to resolve the bug	I already had a capstone group and wanted to stick together with them	l looked into instructors on RateMyProf	I talked to upper years to get their opinions on courses	Received an event invitation in order to add it to Outlook calendar
Looks at the time commitments for each course of the program	Looks at the fee for each course	First looks at contents, then looks at schedule, then looks at cost, then looks at instructor	Expects to register and reaches out to course advisor to find out next steps	l looked into the course calendar	I read a description of what you'd be learning in the course	I made the decision to enroll with the group that I regularly studied with (labs)	I took some courses independent from my study group because our interests diverged	l looked for a time that worked well for us as a lab group, and we enrolled together
Expects an email confirmation, things to bring, recommended reading, instructors information, and course syllabus	Puts course times into calendar	Builds study time into calendar	Reads about the instructor's background	If I got into a course with my friends, I would have a better experience	Registering for a course would either return a check mark or an error message (missing information)	Received an email confirmation	If a course didn't already have an instructor assigned, an email notification would be upcoming	Hopes for internal courses to be offered during work-from-home period

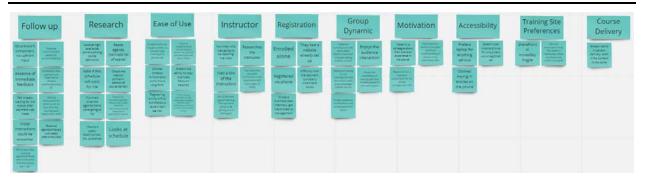


# Preliminary Tag Cloud of Interview Responses (Participant 8)

Researches the college/uni versity	Researches the course syllabus	Looks into the course deliver method (online/in- person)	Determines if the course would fit my schedule	Expects a package from instructor/school (what we're learning, when classes start, time)	Expects an email confirmation indicating that you've registered	Feels worried thinking about technical difficulties impacting instructor-led online courses	Reaches out to colleague if they've taken the course	Managers expect the ability to turn off notifications of completion for their staff
Expects registration would be clear, what's involved, instructor-led, reading material	Prefers an instructor-led course over self-directed	Enjoys having both instructor led and having the physical training material	Visual learner	Prefers online registration	Prefers in- person/phone registration if I have lots of questions	Prefers online courses outside of working hours (because of family commitments/chil dren)	Prefers laptop/desktop because of better visibility (larger screen)	Wants the navigation to be hand-holdy, intuitive, straight line to get tasks completed
For online classes, hopes that there would be a small class size (ideally 10-12 students))	Smaller class sizes reduces distractions, easier to ask questions	Dislikes instructor-led if the class size is too large	Gets distracted during video classes by looking at what other people are doing	Willing to do phone registration assuming that there's going to be a paper trail (email/mail)	Prefers in- person courses during working hours	Enjoys getting questions answered while they're fresh in their mind	Dislikes coming back to questions after delayed feedback	Expects a confirmation email, schedule, innesloc, completion email (sent to user; manager, admin)
Relies on word-of- mouth reviews to guide decision	Focusses on what I need, if I'm not basing my decision on word- of-mouth recommendations	Determines if I'm getting what I need for my job through the course	Doesn't look into the instructor, prioritizes the school and word- of-mouth recommendation	Enjoys immediate responses from instructors (10 minutes)	Dislikes the gap between a process-critical question and response	Expects good job aids on how to edit content on the training site	l want it to be user friendly	Expects a copy of the completion record for each user (as admin), as a backup incase a glitch happens in the system
Makes decision to enroll alone	Not big on competing	Open to taking the course with a colleague	Fine with taking the course on my own	Wants the training site to be easily edited	Values the physical piece of paper (visibility)	Expects two channels of confirmation (SharePoint and email)	Managers expect to be able to operate out of their inbox (using notifications)	Doesn't think that the upsell/front- loaded course content is necessary
Finds out what other's are saying about the school	Bases decision of whether or not to enroll on recommendation from peers	Likes to have a person available to ask questions	Likes to know who to reach out to if I get stuck	Momentum- centered task completion, doesn't like hitting roadblocks without immediate plan forward	I like doing it all in one-shot	Expects a basic outline, instructor, and straight into the registration form	Highly visual, wants commitments in writing	Doesn't think that the extensive course details/research will be necessary (internally delivered)



# Preliminary Affinity Map (Participant 1)





## Preliminary Affinity Map (Participant 2)





# Preliminary Affinity Map (Participant 3)



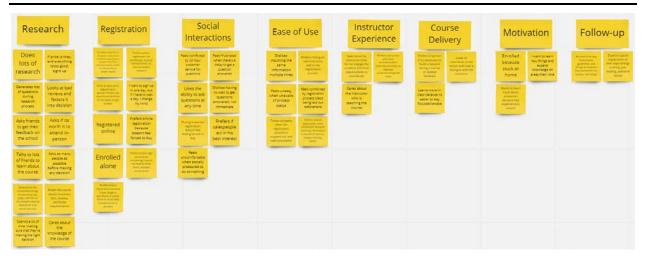


# Preliminary Affinity Map (Participant 4)

Building a Business Case	Communication	Ease of Use	External Research	Price/Value	Internal Research	Access	Slowdowns	Schedule	Registration	Social Interaction	Motivation	Applicability
	Results of the second s	And the second s	Lossa Raceus Andrew Raceus Rac	The second secon	Area of a log of the second seco	Pertor Marchine	Repared to the second s	Checkson Difference Statistics An extra statistics An extra statistics and an	Her shugs register Sinter Agester Sinter	And	Annual State	The part of the pa



# Preliminary Affinity Map (Participant 5)





# Preliminary Affinity Map (Participant 6)

Course Research		Challenges	Registrat	Registration		Follow-up		Shared Credentials		Self Assessment		Pre-course Preparation		Course Delivery		Ease of Use		Getting Approval	
ooks at the price	Looks at topics being taught	Couldn't Dressourn reave the wouldn't dropdown blank weid somest		gistration es childe	Receives a receipt	Liseers pos- read registral safes completial beforefierd	Generally not for corporate- type stuff	Unk to a provider for single sign-on	Decentomes if the needs more aspanance with the counte sepic	Reserved * Courtees address Saliburg that he needs 15 Gevelop	Formation and pro- biliter for and for concerning and and and for concerning and and and	Equato http://dima.for how to submit homework assignments	Training was in- person	Dependent on Subject and Subject and Subject of Content Subject of	Registration was pretty easy	Nely	Puts in a request to attend course	Technical skills oevelopment	History of previously schrolidade courses voluliti bal helpful
Del ecopiositive internative name Looked at course atalogue	Looked at course syllabus analyses anal	A couple of States hiccups based states and the states of the states and the states of the states and the states of the states o	similar to ordering pizze online	Matlen Klon was valiable mention mention deceman deceman deceman deceman deceman	Receiver emilt confirmation hose Recent and the antimation	Tand of parama interest that such as a first of the such as a first	Organizara denti need ta seed tack of partonal informacian seque tre- opcon to op- ministr accar media profiled	Auto-filling personal information is helpful	basedan (na another by the source dent) why applies to a source dent based of a source of manufacture manufacture manufacture	Level a proverhance is a efficiency is a small the prior is the scale		-			Ī	_	-	_	-
ould heve look into max they do. flatent coprior the retrictori employer	Attends onter Hericols (attend Hericols) (attend discolfing) attending for minimum (attending) (attend	entry or for sould form updated students	ad toke that registered Na margenere																



# Preliminary Affinity Map (Participant 7)

Troubleshooting		Registration		Research		Ease of Use		Scheduling		Group Dynamic		Communication		Online vs. In-Person		School		Instructor		Price/Sales	
I pool i gran i deale of a log do year of a log do year o	Anti-revised site to particip a state of particip a state of particip a state of particip and particip for anti- and queues.	Regrammed in the second	Registered online Registered on the day Regenerat Regenerat Regenerat Regeneration Regeneration Regeneration Registered on the day	Tankej to gether sprotection sprotection sprotection sprotection descention setting sprotection descention setting sprotection setting set	I read A socialized of several proto- course into the course calendar colored	Registering mes pretty early and the series of the series	Remote the equipart construction of the end of the subcomparison of the end of the subcomparison of the end of	Parkes doing a success prive access prive increases and constructions of the success of the success of the success of the success of the success of the success of the succ	Builds study time into calandar Puts course owes into calendar	Insula da Managera	Land anome in the second second second second methods and second	Acceleration of the second sec	Removale enals a stay in bilancia (4.10 pt bilancia) bisebinary bisebinary bisebinary bisebinary bisebinary bisebinary bisebinary bisebinary bisebinary	If it was not approximately a second	The next in the second	Cess Indirect as promotion of the second relation of the second of the second of the second and the second of t	Prefers Being a Counter from a university	Lineoland Lineo Hastawatan Antelly Prof	Reads about the instructors background	Looks at the fee for each course with reaction of the second seco	Factors in the price of the course

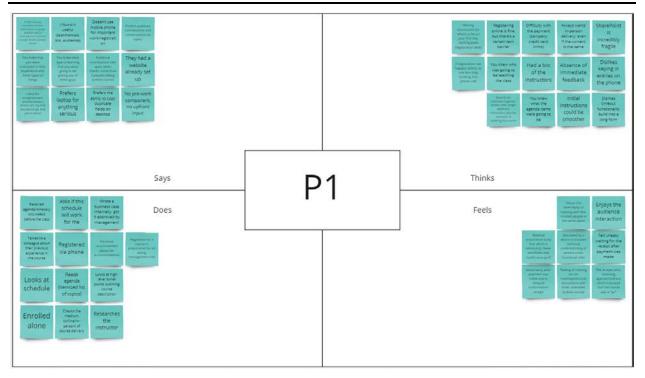


# Preliminary Affinity Map (Participant 8)



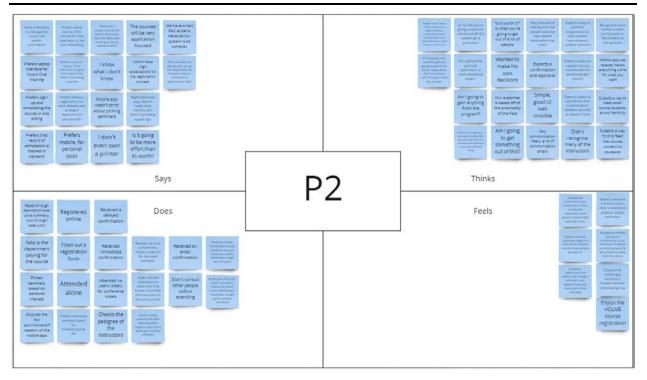


Preliminary Empathy Map (Participant 1)



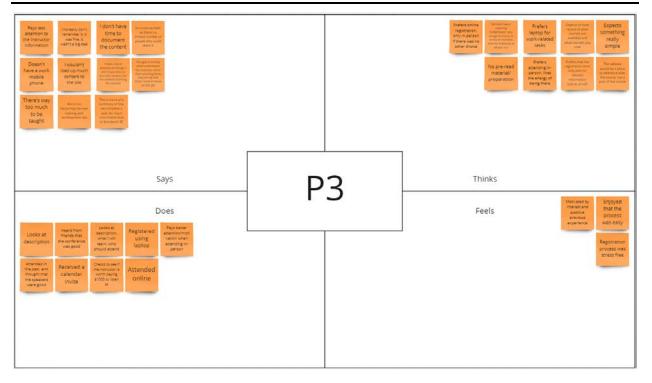


Preliminary Empathy Map (Participant 2)



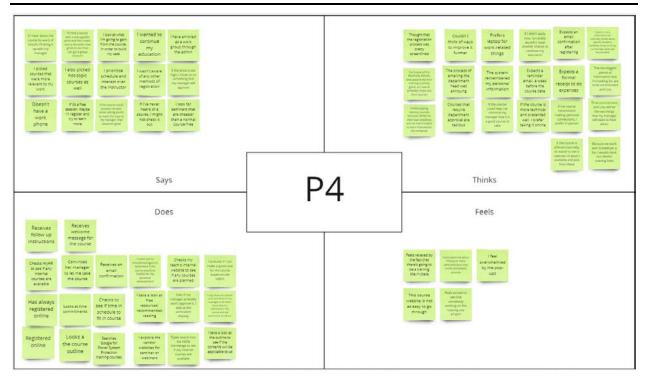


# Preliminary Empathy Map (Participant 3)



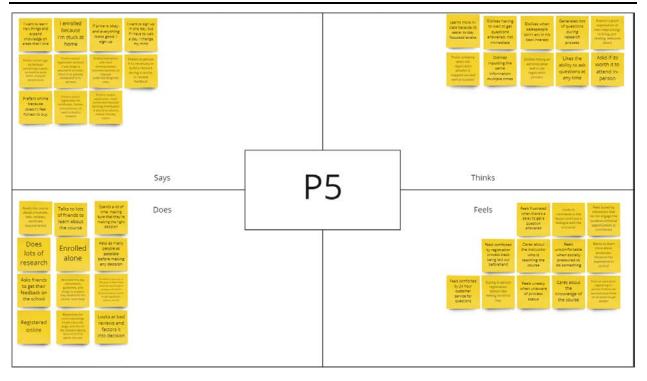


Preliminary Empathy Map (Participant 4)



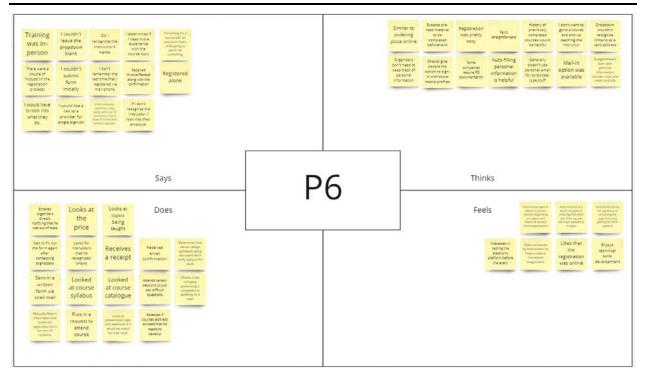


Preliminary Empathy Map (Participant 5)



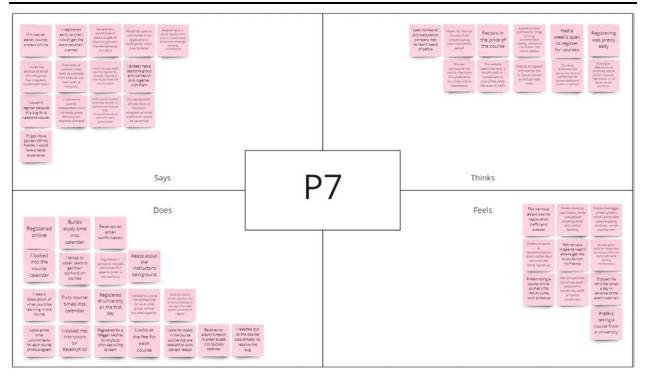


Preliminary Empathy Map (Participant 6)





Preliminary Empathy Map (Participant 7)





Preliminary Empathy Map (Participant 8)

