

Comparison of Navigation Menus

One of the first design aspects I noticed that need major changes was the navigation menu. On the following page, there are two screenshots showing the old navigation menu and the new navigation menu. As you can see, there are numerous changes that I have made to make the interface more appealing, user-friendly, and professional.

In the old web interface, the navigation menu is on the left side, but as a personal preference, I like the navigation across the top, unless everything is tied in well together. By moving the navigation menu to the top, I was able to center all the text and tables on the page to coincide with the navigation menu.

As another design element, on the old web interface, there wasn't anything to show the user what page they were on, besides the title of the page. However, in the new web interface, the page the user is on is signified by the button background changing, as you can see in the screenshot of the new interface.

To make the interface more appealing and user-friendly, I also added mouse over effects on all the buttons in the menu. Now, when the user moves the mouse over the button, a background tab is displayed to show where the user has the mouse.

I also changed the color of the web interface elements to a darker green that is closer to the St. Norbert colors, and it is easier on the users' eyes. The green on the old web interface was just too bright, and it was not pleasant to look at for long periods of time.

I got everything for the navigation menus working perfectly, but I decided to make sure everything worked in Internet Explore because when programming, I use Mozilla Firefox. When checking the web interface in IE, there were a number of design elements that were not being displayed properly. After doing extensive research, I found that there are tons of code differences when programming for IE or any other browser. To fix this problem, I added a few lines of code that checked which browser the user was using. If the user was using IE, then a stylesheet that I programmed for IE was used to display the page. However, if the user was not using IE, then the default stylesheet was used. By doing this, I was able to set up all the design elements to work in both IE and Firefox.



Tutor

WELCOME TO THE ST.NORBERT TUTOR DATABASE SYSTEM

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START PAGE

Your last update was **April 19, 2009**

INSTRUCTIONS & ANNOUNCEMENTS...

ATTENTION! Here are two documents to assist you in using this application:

- [Tutor Reference Manual - MS Word](#)
- [Tutor Web Walkthrough - MS Powerpoint](#)

Follow the navigation bars on the left to your personalized information areas...

Old Navigation Menu



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Start Page

Your last update was **April 20, 2009**

Instructions & Announcements...

ATTENTION! Here are two documents to assist you in using this application:

- [Tutor Reference Manual - MS Word](#)
- [Tutor Web Walkthrough - MS Powerpoint](#)

Follow the navigation bars on the top of the page to your personalized information areas...

New Navigation Menu

Comparison of Profile Pages

On the Profile page (Screenshots below), the main changes I made were to realign the table and table entries to make it more appealing and professional looking. In the old web interface, the fields in the table were not consistent in their alignment, so in the new one, I fixed this making it look more organized. One small error I fixed on this page was that the graduation year always reverted back to the current year. I found this to be an error when the data was being parsed, but this issues is fixed in the new web interface. On this page, you can also see the updated navigation menu, and how the page the user is on is signified in the navigation menu.

Old Profile Page

Personal Data	Contact Info	Semester Preferences
Last Name: Admin ID: 999999 First Name: Ryan Grad. Date: Spring 2010 Major: Computer Science Minor: Business Advisor: Dr. Pankratz	Suite Number: 1393 Phone Number: x3302 Cell Phone: Address: 100 Grant St City: De Pere State: WI Zip Code: 54115 Mail Preference: <input checked="" type="radio"/> On Campus <input type="radio"/> Off Campus E-Mail Address: ryan.mclaughlin@snc.edu	Hours to work per week: 20 Number of students to tutor: 5 Number of semesters tutored: 0

Update Information

New Profile Page

Comparison of Course Pages

On the following page, there are two screenshots showing the old Course page and the new Course page in the web interface. As you can see in the old interface, there are obvious spacing issues between the separate sections of the page. In addition, the Add Course section and Delete Course section are separated by the Current Course section. In the new interface, I fixed the spacing issues and moved the Delete Course section, so that it is now underneath the Add Course section. Doing so makes the page flow better because the two options to change courses are together followed by a table showing the classes they input.

One change that you cannot see in the screenshot is that I have added the ability to see the Course Name before actually adding the class. In the old web interface, the user had to select all the course information and add it to their list before they are shown the name of the course. This created a problem because the tutors did not always remember the exact course ID for the course they want to add. Because of this, the tutor had to pick the course ID they thought the course was and add it to their classes. Once it is added, the course name is shown in the table, but if they accidentally picked the wrong course, they must delete it and go through the process again. To fix this, I added a textbox that shows the tutor the Course Name after they select the Course ID. If the Course Name is the one they wanted, they can then add it to their list of courses.

Another problem the tutors had was that there were some classes that they could tutor but were not listed in the list of classes. Some tutors would just skip over that class, which means no one would know they were able to tutor that class. In other instances, Carole would register them to tutor a similar class, which still causes problems because it is not the exact one. To fix this, I have added a form at the bottom of the course page, as you can see in the screen shot. This form gives the user the ability to enter in all the course information for the course that is not listed but they need. When the user fills out the form, they can click 'Send Request.' This sends an email through the server to Carole Basak, the associate director of Academic Support Services. In this email, she is notified of the tutor that requested the course as well as all the information they entered. From here, she can add the course to the database and add the course to the tutor that requested it.

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Add A Course

Select Discipline: AMER

Current Courses

Course ID	Course Name	Professor	Other Professor	Recommendation
BIOL 120	General Biology 1	Feirer		1
BIOL 121	General Biology 2	Anderson		1
PSYC 100	Intro. to psychology	Korshavn		1
CHEM 107	General Chemistry 2	Poister		1
MATH 115	Pre-Calculus	Casper		1
BIOL 244	Genetics	Dr. Feirer		0
CHEM 105	General Chemistry 1	University of Iowa		0

Select A Course To Delete

BIOL 120 - General Biology 1

Old Course Page

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Add A Course

Select Discipline: AMER

Delete A Course

CSCI 460 - Capstone

Current Courses

Course ID	Course Name	Professor	Other Professor	Recommendation
CSCI 460	Capstone	Pankratz, D.	Pankratz, D.	0
COME 322	Business + Professnl Speaking	Hutchinson, K.	Hutchinson, K.	0
CSCI 330	Database Techniques/Modeling+L	Blahnik, J.	Blahnik, J.	0

Fill out this form to request a class be added to the list above.

Course ID:

Course Name:

Primary Professor:

Other Professor:

New Course Page

Comparison of Schedule Pages

The largest problem I addressed in the web interface was the method the tutors used to input their availability into their schedule. In the old web interface (shown in the top screenshot on the following page), there was a large table with half hour cells. Inside each cell was a checkbox and text stating what time slot the cell is. To input when a tutor is available, the tutor had to check each cell individually or use the tab+space method. There are a number of HCI principles that I felt were being violated here. First, the table design itself was too cluttered because there was text and checkboxes everywhere. Second, the method for selecting availability was not user-friendly at all.

To fix these issues, I went through a number of prototypes trying to find the right solution. My first prototype involved showing a popup window when the user clicked a cell. In this popup window, the time the user clicked would be displayed, and the user could enter the end time. Once these were entered, the time slot selected would be colored differently to show the user what they input. However, because IE blocks popup windows and the method to delete time slots was not user-friendly, this was not the best solution.

The second prototype I created used a form at the top of the screen. All user interaction was done in this form. The user would select a day from a drop-down list and then select a beginning time from a drop-down list. This would populate the third drop-down list that contained the end time values based on the selected beginning time. Once the user selected all three, they could click a button to enter that time frame. Doing so would color the time frame another color to signify availability. However, the method for deleting was not user-friendly again, and this method did not seem natural for a user.

The third and final prototype utilized a click-and-drag style schedule, as shown in the second screenshot on the following page. In this schedule, you will first notice that all the text is shown on the outside of the table, reducing the clutter. In addition, the cells are completely empty making it much easier to see and use. To select a time frame of availability, the user clicks at the beginning of when they are available and drags to the end of that time frame. To delete a timeframe, the user repeats this process but goes back over what they have entered. The cursor location lights up the current cell red showing the user where they are, and times they have entered are shown in yellow. As a method of reducing user-error, I programmed the schedule so the user cannot drag the mouse outside of the column they are currently highlighting. This prevents the user from highlighting horizontally, which would not be natural to the user anyways. I also added a legend at the top of the schedule to further help the user. I had a number of issues when trying to connect the schedule to the database because initially my table was built using javascript, client-side, and I needed to use PHP, server-side. To fix this, I rebuilt the table in PHP, while calling my javascript functions. I also utilized hidden checkboxes to store availability.

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
<input type="checkbox"/> 8:00-8:30	<input type="checkbox"/> 8:00-8:30	<input type="checkbox"/> 8:00-8:30	<input type="checkbox"/> 8:00-8:30	<input type="checkbox"/> 8:00-8:30	<input type="checkbox"/> 8:00-8:30	<input type="checkbox"/> 8:00-8:30
<input type="checkbox"/> 8:30-9:00	<input type="checkbox"/> 8:30-9:00	<input type="checkbox"/> 8:30-9:00	<input type="checkbox"/> 8:30-9:00	<input type="checkbox"/> 8:30-9:00	<input type="checkbox"/> 8:30-9:00	<input type="checkbox"/> 8:30-9:00
<input type="checkbox"/> 9:00-9:30	<input type="checkbox"/> 9:00-9:30	<input type="checkbox"/> 9:00-9:30	<input type="checkbox"/> 9:00-9:30	<input type="checkbox"/> 9:00-9:30	<input type="checkbox"/> 9:00-9:30	<input type="checkbox"/> 9:00-9:30
<input type="checkbox"/> 9:30-10:00	<input type="checkbox"/> 9:30-10:00	<input type="checkbox"/> 9:30-10:00	<input type="checkbox"/> 9:30-10:00	<input type="checkbox"/> 9:30-10:00	<input type="checkbox"/> 9:30-10:00	<input type="checkbox"/> 9:30-10:00
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Old Schedule Page

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Please click and drag time slots vertically to **highlight** your availability
To delete availability in time slots, simply click and drag back over it

Current Slot
Available
Not Available

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
8:00 a.m.							
8:30 a.m.							
9:00 a.m.							
9:30 a.m.							
10:00 a.m.							
10:30 a.m.							
11:00 a.m.							
11:30 a.m.							
12:00 p.m.							
12:30 p.m.							
1:00 p.m.							
1:30 p.m.							
2:00 p.m.							
2:30 p.m.							
3:00 p.m.							
3:30 p.m.							

New Schedule Page

Modules Completed Page

In the new web interface, there was one new page I added. This page is the Modules Completed page, shown below. The purpose of this page is to show the tutors what modules they have completed. The data for this page is input in the VB program by the administrator. As a tutor completes modules, the administrator inputs the date of completion on the Module form in the VB program. This data is displayed when the user accesses this page in the web interface. This page serves as a self-check mechanism, so the tutor knows what they have completed and what they have left to do, as some modules are required.



ST. NORBERT

Tutor Database System

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Your Module Progress

Module	Level 1 Date	Level 2 Date	Date	Date	Date	Date
Coaching		5/8/2009				
Culturally Diverse Students			4/18/2009			
Diagnosis Through Observation						8/1/2009
Essential Study Strategies		4/21/2009				
Group Tutoring	4/26/2009					
Learning Disabilities				6/4/2009		
Math Video 1						
Math Video 2						
Sleep			5/31/2009			
Students with Disabilities						5/9/2009
The Writing Process						
Time Management	4/5/2009					
Tutor Practicum 1				4/26/2009		
Tutor Practicum 2					4/5/2009	
Tutoring the Humanities						