Improvement to the class registration website interface of Northeastern University

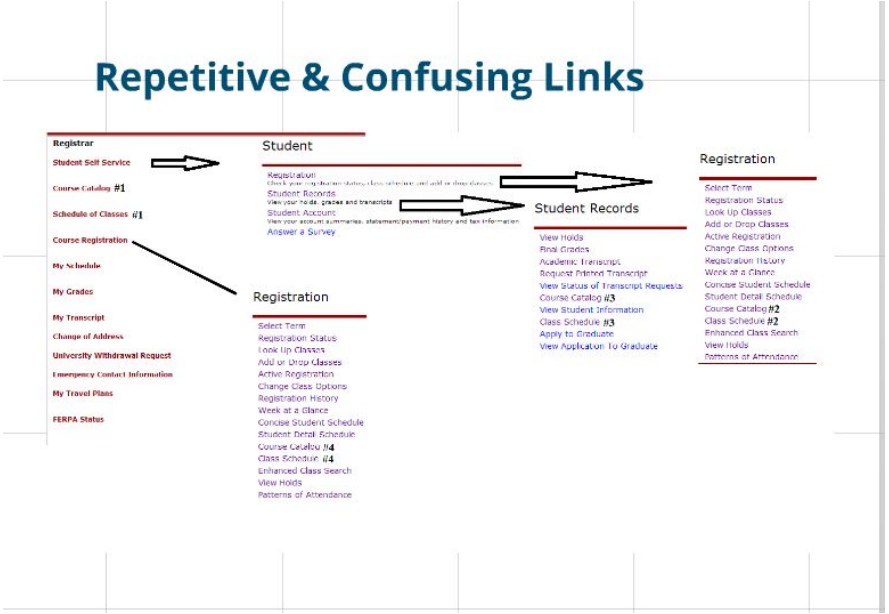
Hui Liu

Project brief

This is a Human Factors project for my NEU graduate program.

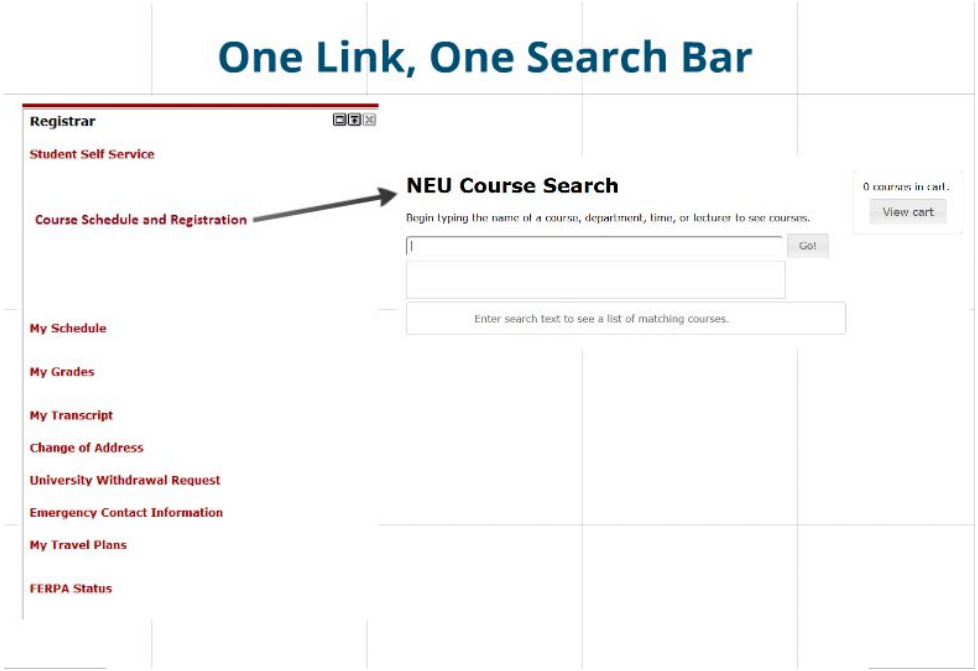
My role in the project is **identifying problems** of the old interface and **creating a new prototype** for the school's Class Search and Registration webpage interface.

Problem analysis



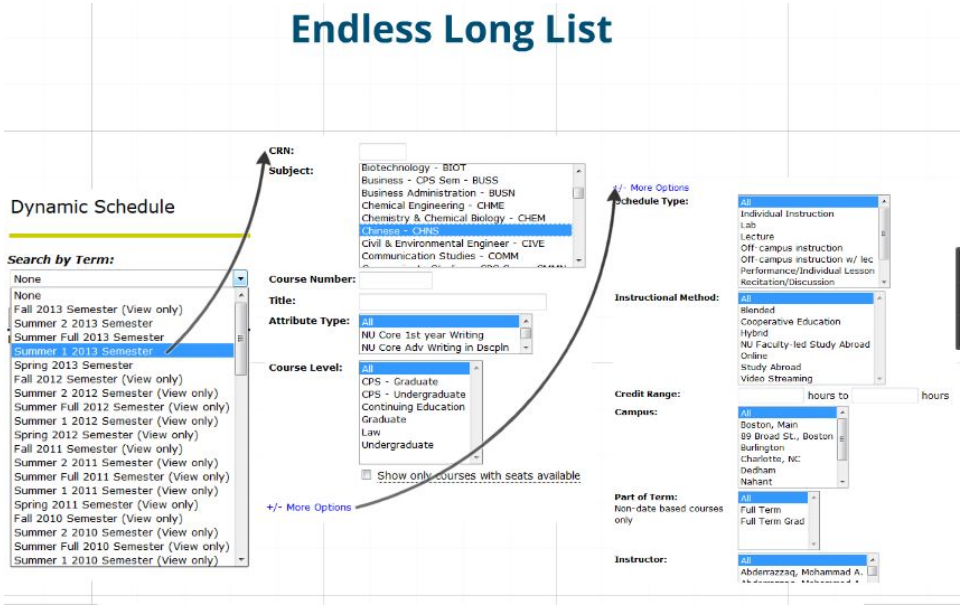
- Terms of the navigation bar are confusing. It is easy for users to get lost, and they have to click through many levels of menus to achieve their goal.
- As an example in the picture, students might click the “Student Self Service” option which would make them go through 2 more pages to get to the class registration page.

My improvement



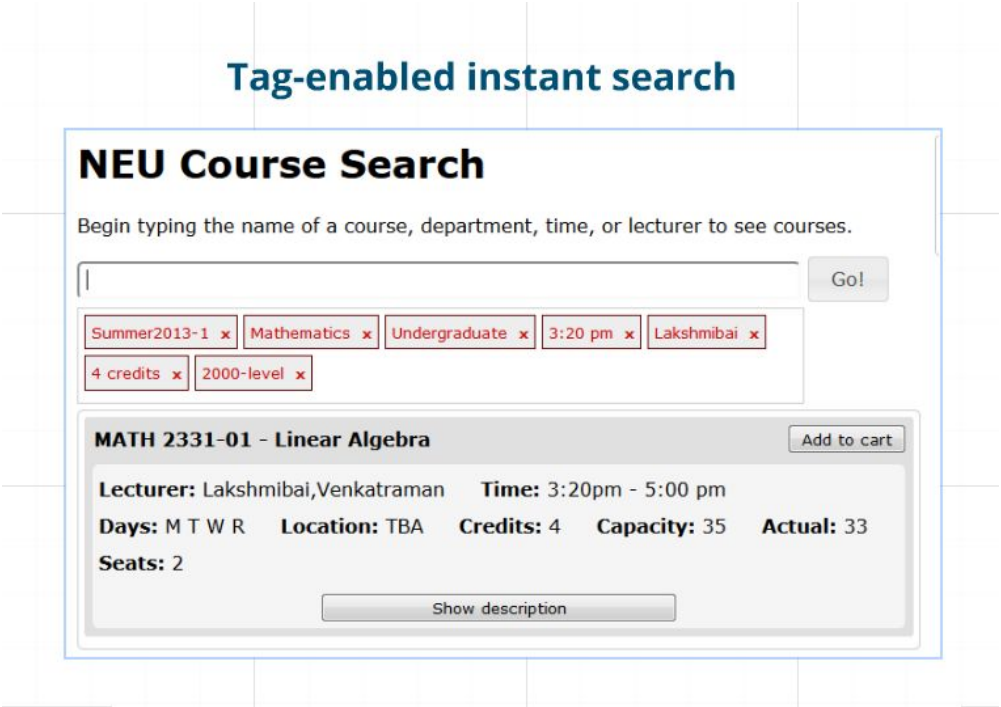
- I recommended we **remove** the repetitive and misleading options from the menu.
- Because the user has to always find a class page first before registering it, “Class Search and Registration” should be **combined** into one option. It will take the user to the new interface I created.

Problem analysis



- To find the class for registration, user had to go through multiple dropdowns and scrollable lists.
- This process consumed a large amount of time, because users had to read though many options to find the one they wanted.

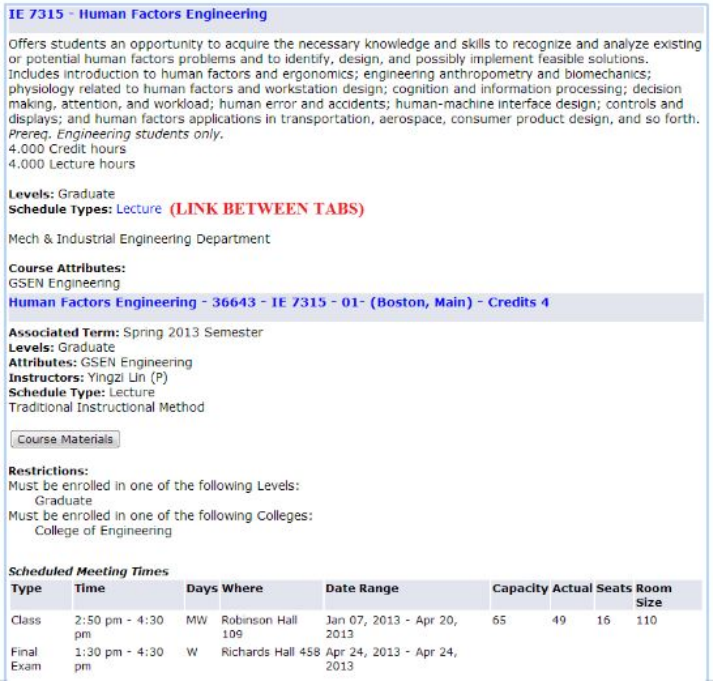
My improvement



- Instead of the dropdowns and scrollable lists, I recommended using **a tag-enabled search bar**. User could just input relevant keywords to find the classes.
- Tags give users an idea of what to search for, and also minimize typing.

Problem analysis

Long Message and Multiple tap



IE 7315 - Human Factors Engineering

Offers students an opportunity to acquire the necessary knowledge and skills to recognize and analyze existing or potential human factors problems and to identify, design, and possibly implement feasible solutions. Includes introduction to human factors and ergonomics; engineering anthropometry and biomechanics; physiology related to human factors and workstation design; cognition and information processing; decision making, attention, and workload; human error and accidents; human-machine interface design; controls and displays; and human factors applications in transportation, aerospace, consumer product design, and so forth. *Prereq. Engineering students only.*
4.000 Credit hours
4.000 Lecture hours

Levels: Graduate
Schedule Types: Lecture (LINK BETWEEN TABS)

Mech & Industrial Engineering Department

Course Attributes:
GSEN Engineering

Human Factors Engineering - 36643 - IE 7315 - 01- (Boston, Main) - Credits 4

Associated Term: Spring 2013 Semester
Levels: Graduate
Attributes: GSEN Engineering
Instructors: Yingzi Lin (P)
Schedule Type: Lecture
Traditional Instructional Method

Course Materials

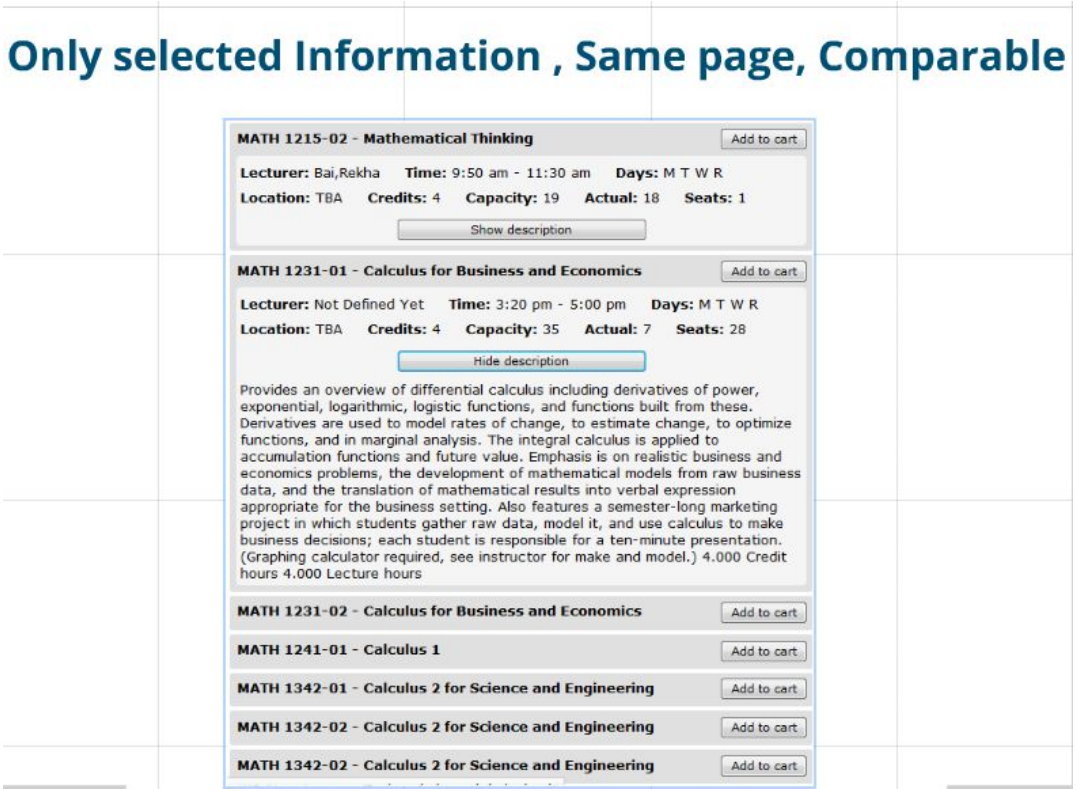
Restrictions:
Must be enrolled in one of the following Levels:
Graduate
Must be enrolled in one of the following Colleges:
College of Engineering

Scheduled Meeting Times

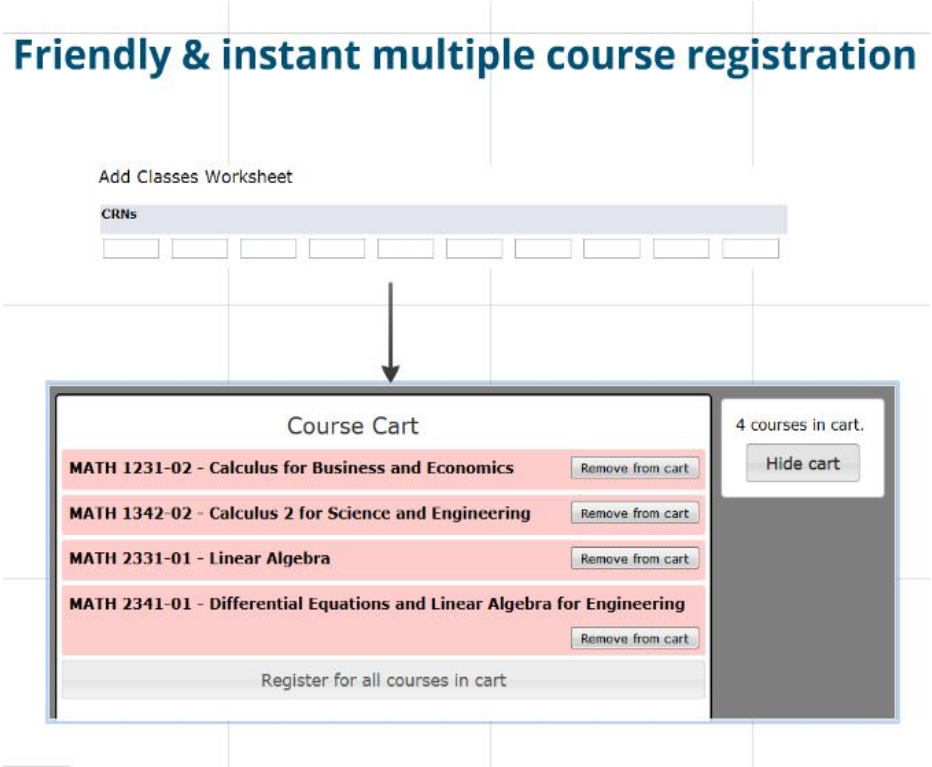
Type	Time	Days	Where	Date Range	Capacity	Actual	Seats	Room Size
Class	2:50 pm - 4:30 pm	MW	Robinson Hall 109	Jan 07, 2013 - Apr 20, 2013	65	49	16	110
Final Exam	1:30 pm - 4:30 pm	W	Richards Hall 458	Apr 24, 2013 - Apr 24, 2013				

- There was too much information for classes - only some of it was important for users to decide if they should register.
- Since the content of one class is so long, user had to open many pages to compare different classes.

My improvement



- I recommend showing search results in expandable boxes.
- Users could have the choice to decide the amount of information they need for making decisions.
- Multiple classes could be shown in the same page for easy comparison.



Problem analysis

- To register multiple classes at once, users had to remember the CRN IDs of the classes, and input them in a different page. This system increased the mental burden of users and was time consuming.

My improvement

- I recommended treating the class registration system as an online shopping experience.
- User could add the classes for registration in a cart by clicking one button, visible in search results.
- User could review the classes they added in a modal, then click one button to register for all.

Clickable Prototype

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A clickable prototype also made (with coding help by Alex Krusz) for my design.

Link: http://krusz.net/course-selector/

User Test Result

User testing of the clickable prototype was performed by my project group members.

Results:

- **37.63%** time savings to register a group of classes when they used the new prototype, as compared with the existing site.
- **92.14%** of participants would prefer to switch to the new interface.