Picker Engineering Course Planning Tool

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Project Statement

The purpose of the engineering course planning tool is to help students plan their courses in advance before semester advising. Engineering majors take more than twice as many classes as other majors. Students are required to satisfy a liberal arts breadth via Latin Honors, or by completing a minor or second major in the humanities, history or social sciences. Therefore, this tool will help students plan for their rigorous plan of study in advance and serve as an online advising tool.

Design Description

The course-planning tool was first developed in HTML. The aesthetics of the web page tables were made using CSS and Javascript. The drag and drop feature allows students to save time on typing all the course requirements.

A database containing tables for different kinds of engineering course requirements was created in MySQL. Communication between MySQL and the webpage is achieved through using a programming language called PHP. The database for course requirements is edited by the site administrator. The site administrator is allowed to add other administrators online. The new administrator information is entered in a MySQL database where authorizations are specified. The site administrator is also responsible for adding courses being offered every academic year. After saving this information to the database, the courses offered will be updated.

Design Development

Figure 1. Current Picker Engineering webpage to view plan of study

Figure 2. Drag and Drop design for course planning

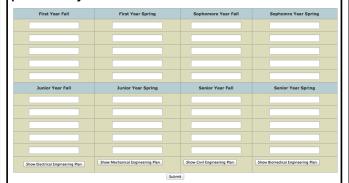Figure 3. Webpage to select by field of study, enter and save courses

Figure 4. Site administrator page to add engineering courses for academic year

Conclusion and Future

The course-planning tool has many features that need to be improved so as to make it user-friendly. It can be made "smarter", by showing red flags when a student attempts to add a course without pre-requisites. In this case, the tool can be used for online advising. An ideal tool will be linked to the student's bannerweb and be able to update courses automatically. Professors can also use the course planning webpage for advising before course registration. This will allow professor to view students' course plan online before they come in person for advising.

The site administrator at the moment has to add courses manually by uploading a text file of the courses being offered in the upcoming academic year. This feature can be improved by making the tool be able to communicate with the registrar website directly and fetch the engineering course requirements for the academic year as soon as they come out.

Future work will be focusing on making the tool communicate with bannerweb to update engineering courses. The tool should be able to update courses being offered the coming academic year, to avoid the administrator having to go online to update courses being offered. Communication with bannerweb will also help the students have their courses updated and pre-requisites automatically checked before they use the course-planning tool.

References

Source for some of the HTML code:
http://www.w3schools.com/

Acknowledgments

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