

# **Team BoardsReview - CM Capstone Spring 2010**

## **Chicago Board of Review Course Site**

### **Product Vision Statement**

#### **Motivation/Opportunity**

The course website for the Chicago Board of Review in Neurosurgery will be an online resource for participants in the Neurosurgery Review Courses. The website is an asset for participants to use and access resources and lectures provided by the Courses. This website will make it easier for participants to study the materials given, refer to past lectures, access notes and presentations, and better prepare for the Board Exam. The future hope for this course management site is for it to be expanded and sold as a commercial solution for managing different courses.

#### **Problem Statement**

The problem of	accessing important course resources online that are currently offline
affects	Chicago Board of Review speakers, participants, and website maintainers.
the impact of which is	participants are ill-prepared for the Board Exam.
a successful solution would be	a secure login website with electronic and embedded resources.

#### **Product Position Statement**

For	participants of the Chicago Review Courses in Neurosurgery
Who	need increased access to provided resources
Our System	is all web-accessible
That	provides an online site which organizes resources and information for the Courses
Unlike	the binder that is currently used and sites like Sakai and Webct*
Our Product	will be tailored to the specific needs of the Chicago Board of Review participants and administrators.

\*Our system is different than Sakai and Webct in that our site is more focused on organizing and viewing resources, schedules and announcements. The advantage of this system is that it is geared towards a conference-type series of lectures rather than a college-based system of multiple classes.

## Users

There are five categories of users: Students, Lecture admins (Lecturers/Teachers), Course admins (Course or Conference Organizers), Site admins (Administrators for the individual site), and Global admins (Owners and operators of solution system).

Students: These users will primarily visit the site to view videos and PowerPoint presentations, and download lecture notes. Expected users are familiar with WIMP interfaces.

Lecture Admins: Lecture Admins will be given access to their specific lecture page(s) and be able to upload videos, lecture notes, and content. Lecture Admins are familiar with WIMP interfaces, but may never have used course management systems before.

Course Admins: Course Admins will be given access to their specific course page(s) and will only be able to edit content associated with that course (including lecture content). Course Admins are familiar with WIMP interfaces, but have never used course management systems before.

Site Admins: Site Admins will be responsible for creating/deleting/editing user accounts and performing any additional administrator functions. Site Admins can do everything Course Admins can do in addition to being able to add courses, set the site theme and text, and much more (see feature list). Site Admins are comfortable with WIMP interfaces and course management systems.

Global Admins: Global Admins will be responsible for creating new accounts and new solutions. (It is the hope that this system would be a web hosting service but limited to managing courses.) Global Admins can do everything Site Admins can do in addition to being able to access multiple solutions. Global Admins are comfortable with WIMP interfaces, PHP, MySQL, HTML, and the entire code behind the course management sites.

## Feature List

Because the project was started last semester, most backend features have been implemented. The features that have been implemented will be marked in [blue](#).

1. Users can login/logout. They are authenticated and will be recognized as a student, lecture admin, course admin, or site admin.
2. Users can register. All newly self-registered users are considered students.

3. Site admins can do the following:
  - 3.1. Add and edit users.
  - 3.2. Specify users as active or inactive.
  - 3.3. Assign a user as a course admin to a particular course.
  - 3.4. Assign a user as a lecture admin to a particular lecture.
  - 3.5. Control a user's subscription to any course
  - 3.6. Create, edit, and delete courses (including subscription pricing and length information for a particular course).
  - 3.7. Create, edit, and delete lectures.
  - 3.8. Add lecture resources (videos, notes, PowerPoint presentation)
    - 3.8.a. Toggle resources to be private or downloadable during upload
  - 3.9. Edit the text on the site home page (about page, etc).
  - 3.10. Add a list/spreadsheet of users to a course (give them a subscription to a course).
  - 3.11. Add a syllabus/spreadsheet of lectures for a course to automatically generate lectures for a course, and potentially assign lecture admin status to those lecturers automatically.
4. Course admins can do the following:
  - 4.1. Assign a user as a lecture admin to a particular lecture.
  - 4.2. Control a user's subscription to the course the Course admin is in charge of.
  - 4.3. Edit the course information that they are in charge of.
  - 4.4. Create, edit, and delete lectures.
  - 4.5. Add lecture resources (videos, notes, PowerPoint presentation).
    - 4.5.a. Toggle resources to be private or downloadable during upload.
  - 4.6. Add a list/spreadsheet of users to their course (give them a subscription to the course).
  - 4.7. Add a syllabus/spreadsheet of lectures for a course to automatically generate lectures for a course, and potentially assign lecture admin status to those lecturers automatically.
5. Lecture admins can do the following:
  - 5.1. Edit the lecture information they are in charge of.
  - 5.2. Add lecture resources (videos, notes, PowerPoint presentation).
    - 5.3.a. Toggle resources to be private or downloadable during upload.
6. Students can do the following:
  - 6.1. View all courses they are currently subscribed to.
  - 6.2. View all lectures for a course they are currently subscribed to.
  - 6.3. View videos, slides, and notes for a lecture in a course they are currently subscribed to. Private videos and slides should be difficult to download for the normal user.
  - 6.4. View their subscriptions
  - 6.5. Extend their subscription for the specified price and subscription length, if this option is available and enabled.
    - 6.5.a. Have a range of options to extend their subscription for.
  - 6.6. Change their basic user information, including password.
  - 6.7. Purchase a new subscription.
7. The site will have a media player for the lecture videos and slideshows.
  - 7.1. All resources may be able to be viewed concurrently.
8. All users should be able to retrieve a forgotten password.

## **Constraints**

### **1. Security**

No extremely personal information or financial information will be stored, so very strict security will not be required. However, the system must have security to prevent users from accessing pages and resources on the site they should not have access to. Also, we plan on hashing certain entries in the database, like passwords, to help increase security. In addition, we will ensure that sessions are properly disposed of when users log out.

Users will be using PayPal to perform transactions. We will have to make sure the communication with PayPal goes through a secure and encrypted channel. Because this feature was implemented by the previous team, we will only have to maintain the security that was put in place.

### **2. Performance**

We expect most pages to return in 1 second or less. The time to download videos, slideshows, or notes will of course depend on the size of the download. We will do our best to minimize page download time by using few images.

### **3. Availability**

We expect the web site to be available 99% of the year. All backups will occur while the system is running.

### **4. Usability**

The site should be viewable across the major browsers (Firefox, Safari, IE, etc), different screen resolutions, and different operating systems. The user is expected to download everything needed to stream video and PowerPoint slideshows.