

## **Introduction**

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I am introducing a new course that will be completely online entitled, "Intro to Web Technologies." This proposal requests it as a prerequisite for the already established Web Page Design 1. The course will be under the Graphic Communications wing at Oklahoma City Community College (OCCC). I am requesting the course be an intro level course 1000 with the only prerequisite for Intro to Web Technologies being minimum college entry-level reading and writing.

The focus will be an overview of the many web technologies that can pertain to individual careers. These workforce ready skills are a focus on the many associate degrees that OCCC offers. This course will also prepare students in taking courses online. Advanced concepts for utilizing the OCCC Learning Management System (LMS) Moodle-Rooms will be a major learning objective early in the semester. Towards the middle of the course focus will shift to Content Management Systems (CMS). These web applications (web-app) will be thoroughly discussed and tested. Finally, folder hierarchy, HTML/CSS, and server technologies will be discussed to prepare students for Web Page Design 1. Dialog will make up most of the course with assessments that are multiple choice tests and content creation in a chosen LMS and CMS.

## **Rationale**

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Students are typically unprepared for the concepts of Web Page Design. I have observed in the course that students at OCCC have a desire to learn web-technologies but not necessarily the HTML/CSS involved in the actual creation of web-sites. Considering this is an intro level course in a community college setting, this is the perfect opportunity to introduce students to the various web-technologies they can specialize in as they peruse their degree. The 18 week course curriculum can be easily filled because of the diversity in online content creation. The course will have a constructivism approach allowing students to research new web-technologies offered in a weekly online discussion format. The asynchronous discussion boards fit the manner in which students would obtain information regarding their company's LMS or CMS in the workplace and why the course should be online. This pedagogical approach empowers learners to select and process information in a selective manner so that they can

create new knowledge in the areas that interest them in online content creation (Beyers, 2009). Thanks to the complexity of housing, creating, and offering web-sites in an individual manner I feel a fully online course would be beneficial. The course will introduce students to web technologies in various stages. Each stage is also to show various career paths students can take if the subject matter interests them. Other courses can benefit from this offering such as the recently created Wordpress course and many Computer Science courses. The learners are typically new to the higher education setting. This course can transition learners to the new self-paced manner in which higher education courses function.

### **Topics covered**

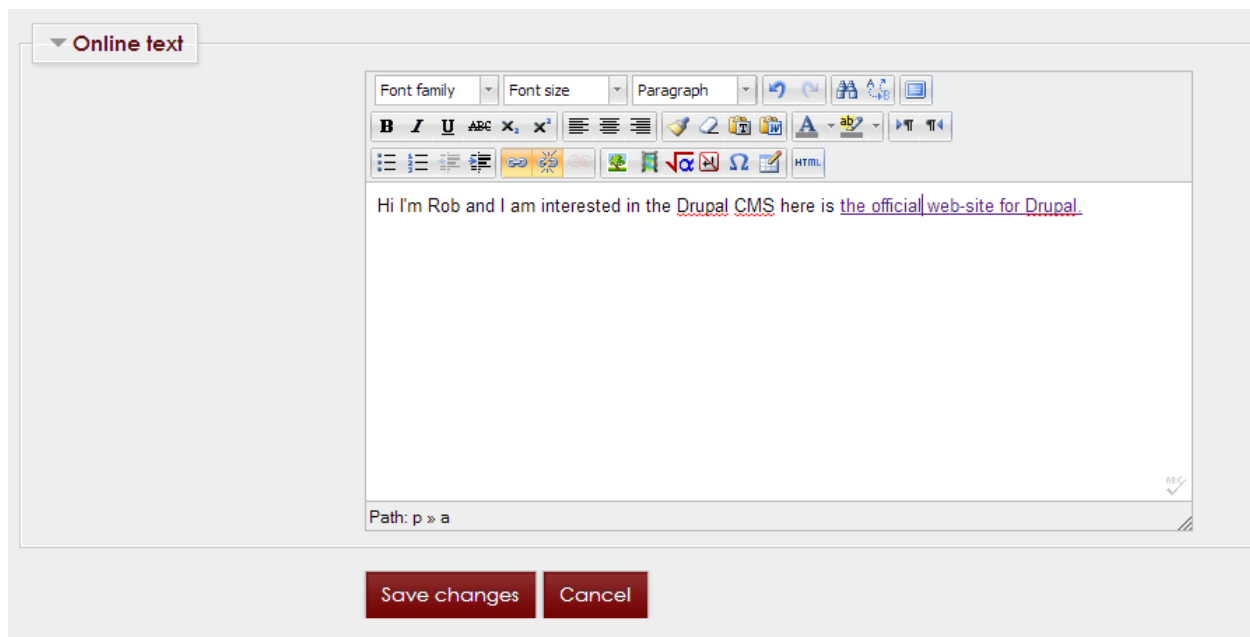
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The learners entering this course will vary on career, backgrounds, age, and computer fluency. Learners are typically recent graduates of local high-schools or non-traditional students seeking an associate's degree to assist in a career change. As stated they will have college level reading and writing but course curriculum will make no presumptions of computer aptitude. This is an intro level course, and with that in mind, the first several weeks will be centered around success in a completely online college course.

The structure of the course would first introduce students to web-applications that create and house content, most specifically Learning Management Systems (LMS) and Content Management Systems (CMS). The course will focus on the school-sponsored LMS Moodle-Rooms and how students create and submit content with this web-technology. This is out of necessity considering the entire course will be delivered in the OCCC Moodle-Rooms environment. OCCC offers training videos for Moodle-Rooms; however, students typically require a grade to immerse themselves with the technology. The user-interface and how to interact with the professor and other students in Moodle-Rooms is the learning objective of the first few weeks.

The very first week of the course the instructor will have a Youtube.com welcome video introducing him/herself with a screen capture on how to properly use Moodle-Rooms. For every new web-technology concept the instructor will offer screen capture videos to assist students. These videos will make 25% of the content in the weekly Moodle-Rooms postings. Students will quickly understand that new videos mean new concepts in web-technologies. Also, in the first stage of the course students will introduce themselves in the asynchronous discussion board. To ensure student engagement there will be discussions each week, or 100% of the course, and will amount to 60% of the learners grade.

An example on avoiding learner isolation is the first week's learning objective that will use the Moodle-Rooms online text editor. Including the text of the student's introduction a picture utilizing the various tools in the Moodle-Rooms editor will also be required. To encourage discussion, and have students obtain a habit of interacting with each other online, every student will need to reply to another peer's post. The requirement of discussing another student's post each week can typically facilitate informal learning and encouragement for learning course objectives. Students will be informed early on that responses to classmates will consist of 10% of their grade but will be guided by the instructor with good discussion points on fellow peer's posts.



*Figure 1: The OCCC-Moodle Rooms online text interface.*

The asynchronous message board with student posts will play the most critical role in the entire course. At this intro level of web-technologies the main learning goal is for students to have knowledge and discussions about the current field of web-applications. At this level simply obtaining knowledge in how the various technologies work is sufficient. These discussions will involve specific topics. There will be a focus later in the course for application and actually creating content with online tools.

The major goal of the course is to familiarize students with the different technologies behind online content creation. Thirty percent the course will utilize various external online tools including Softaculous which allows demonstrations of learning and content management systems. As stated, the first focus being the Moodle-Rooms LMS but this will be followed by having students try other learning

management systems. A discussion for this learning objective will be what online learning means to the student, possibly research the LMS of a four year university they plan to pursue a bachelors in, and introduce them to the career field of instructional systems design. After 3 to 4 weeks focusing on the education field of web-technologies and a multiple choice quiz on the general concepts the course will move into content management systems.



*Figure 2: Screenshot of the Softaculous interface*

A general overview of content management systems, the technology behind them, and the purposes each different CMS serves will be the discussion for several weeks. Students will be encouraged to research the different user interfaces and the benefits each CMS offers. After weeks of discussion, students will apply learning objectives to a real life case scenario.

Each CMS has very nuance differences and the scenario is the instructor is the Chief Information Officer of Big Business Tech and the company is preparing a web-site redesign utilizing a new content management system. There will be various needs listed for the company such as a back-end intranet system, differing administration roles, and ease of producing new content. The students would then post a brief synopsis of how they would implement these needs for the company with their chosen CMS in the asynchronous discussion board, along with screenshots of the user interface and content they had

produced. After another multiple choice test to verify learning objectives have been met the course will move to its final stage.

The final external tool used in the course will be Browserling for the cross browser compatibility discussion. This will begin a month long discussion that prepares students for Web-Page Design 1. There will be several weeks of discussion involving the "browser wars," and how that effects delivery of content. Including how smart phones and tablets access the internet with their own specific browsers. Pixel resolution and new technologies in adaptive web-design will be the advanced topics covered and how this relates to smart phones will usher in the final part of the course.

This will be the final learning goal of the course which is preparing students for Web-Page Design 1. Definitions of back-end files and the differences in computer languages such as server side scripting versus front-end web-technologies will be the discussion for students in the final weeks. Topics will include analyzing the folder hierarchy and most importantly the role HTML/CSS plays in online content creation.

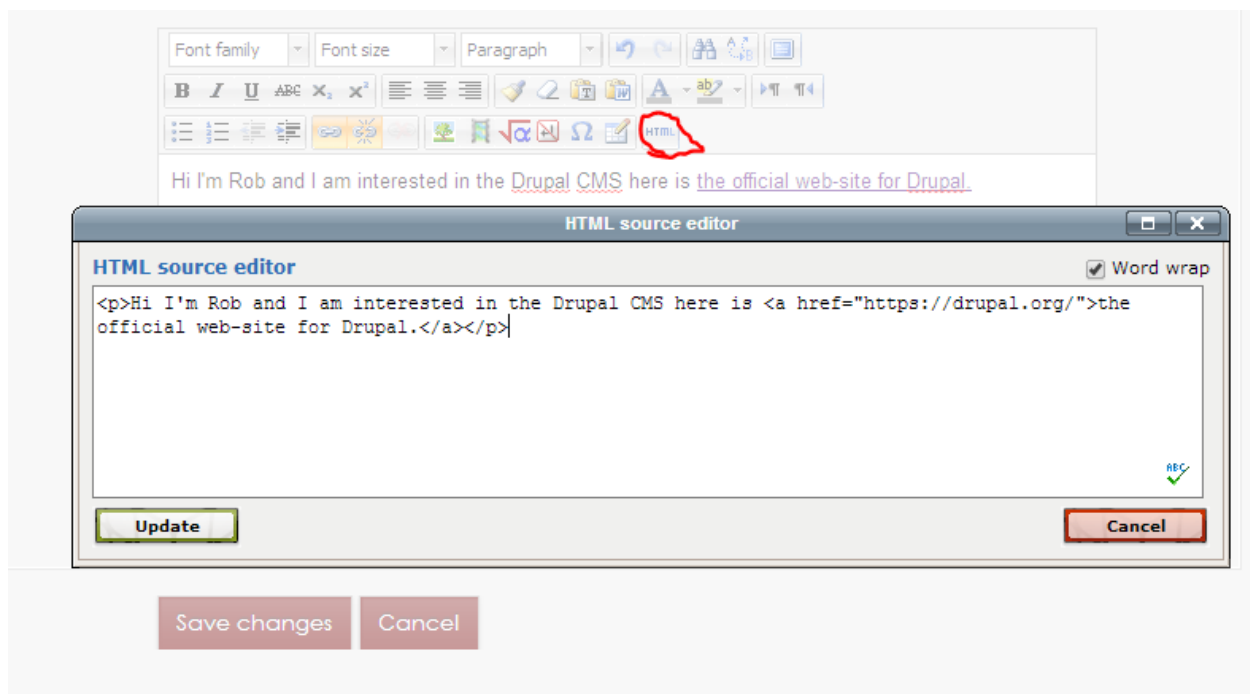


Figure 3: The HTML view of the OCCC Moodle-Rooms online text editor

Students will analyze posts in the OCCC Moodle-Rooms interface and view how HTML is developed behind the scenes. A final non-cumulative multiple choice test will be administered on the areas of back-

end technology. With a final two page paper from each student discussing new concepts they have learned and how they view themselves in future roles as online content creators.

## **Conclusion**

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Intro to Web Technologies will be a great asset to Oklahoma City Community College's offering of courses. Specificity in discussions but flexibility in application will be the concept of how each week's learning objective will present itself. The course will create general knowledge on the differences on web-technologies that are involved with online content creation. Because all of these technologies are relatively new, students typically have to research how these technologies are relevant to their chosen career path to obtain knowledge. This course will develop examination and discussion so students can move forward from knowledge of online content creation to application of creating online content and succeed in fully online courses.

## References

Beyers, R. N. (2009). A five dimensional model for educating the net generation. *Educational Technology & Society*, 12(4), 218.