My Office Hours

Rich Media Project
Design Document
Dr. Marion Carroll
Spring 2007

MyOfficeHours:

The Rich Media Project entitled <u>My Office Hours</u> is a website/audioblog hosted at Marioncarroll.com designed to leverage the newest functionalities that have transformed the Web over the last 4 years...coined Web 2.0. Students communicate constantly by cell phone, text messaging, IM and email. This connectivity has value not simply as a means to socialize but also as a two-way communication between students and educator. <u>My Office Hours </u>is to serve as a meeting ground where students and teacher can address issues from class, issues in student life outside of class and concerns about post-graduate academics and life in general. Comments, questions and concerns may be delivered or posted to <u>My Office Hours</u> anytime throughout the academic year via the "comment link" on marioncarroll.com.

Statement of Purpose:

The objective and purpose of My Office Hours, herein referred to as simply MOH, is to create a nonintimidating, informative, fluid, entertaining and transparent Internet portal for students to discuss, review, study and comment on topics raised by me or other students during my normal office hours. This interaction may be on material presented during their lectures and labs throughout the semester or opinions about college life or just a discussion of advice I might give on post-graduate programs and career opportunites. MOH will enable students to view comments made by colleagues, learn from and respond to each others concerns anonymously if desired, and at the same time create a resource for future reference. They can listen in and comment on invited speakers and visiting professors that may also agree to participate in MOH. This is expected to be a constructive environment not only for students to learn

from each other but also for the instructor to get to know today's college experience and to share conversation and information with students and teachers that might be of value to precollege students and alumni.

Process Outline:

Blogs, or web logs, are changing standards of communication throughout the Internet savvy community. As a way of publicly expressing an opinion, reporting on an event or documenting ones life, Blogging has become the ideal tool. MOH exploits this tool by engaging willing students, faculty and guests of Xavier University in conversations that are recorded, edited and made publicly available from Marioncarroll.com.

How are guests engaged in MOH?

In creating a non-intimidating and transparent recording environment rarely are students or faculty encouraged to participate upon first meeting in my office. Unless a guest is visiting for a short time they are given the opportunity to learn what MOH and Podcasting is all about and listen to some samples of previous MOH meetings and recordings. Podcasting is a term used to describes how audio/video content in a Blog is distributing on the web. An invitation to a guest is then extended to participate upon their next visit to MOH. Of course the ideal engagement is one in which the student or faculty come in and immediately agrees to participate already having full knowledge of the process and some idea of the objectives of MOH. An effort is made to reduce any pressure and increase the spontaneity of a

meeting to create a unique and engaging podcast.

How are guest recorded?

To allow for information, stories, experiences and ideas to be expressed and flow freely in MOH a great effort is made to position participants in a comfortable "non-recording studio" setting. My office is typical of most offices with the addition of a couch where guest have easy access upon entering and a place to lay down books and bags. Many students find it comforting to just be able to sit and relax in their professor's office if only for a brief time before explaining why they have come. A comfortable place to relax I think is also welcoming to guests who visit our department. The less the pressure the better the recording because there is no expectation and thus inhibitions and lower. The two microphones used are not hidden but are out of line-of-sight. This is a challenge to capturing clear audio but in a small office it seems to work. The mics are plug into a pre-amp to allow setting of recording levels and this is USB connected to my laptop. My laptop runs a free recording program call Audacity that is capable of capturing stereo quality audio then allows encoding of the audio into an MP3, WMA or OGVORBIS audio file. This setup is static and always ready to run. Once Audacity is open I just press the record button.

How do the recordings become available?

The simplicity of the Blog enables ease in distribution of audio or video files. Once the recordings are created and archived, a link to the audio file stored on the server is

embedded into the Blog title or into the body of the Blog. This title becomes the link that users viewing the MOH Blog will use to connect with and hear the recorded media. Alternatively, the blog is encoded into a Really Simple Syndication (RSS) feed. The feed address can then be used by RSS aggregators like iTunes, FireAnt or Yahoo or Google Reader to deliver and inform subscribers of new posts to the MOH Blog.

Topics covered?

There are no topics predetermined...so that any topics may arise. The content of recordings is all up to the guests. Students start with trying to understand point distributions on exams and then end up talking about a classroom experience or dorm life. Usually the conversation begins with one student then another enters, then another. It is important that I address their need first. Test questions, questions from lecture or lab or advice on classes to enroll in are always addressed with no thought given to Podcasting. However, one student might be curious about a grade then another student might come by for the same reason. Once satisfied with their grades they become more conversant and willing to talk in MOH when those types of pressures are assuaged.
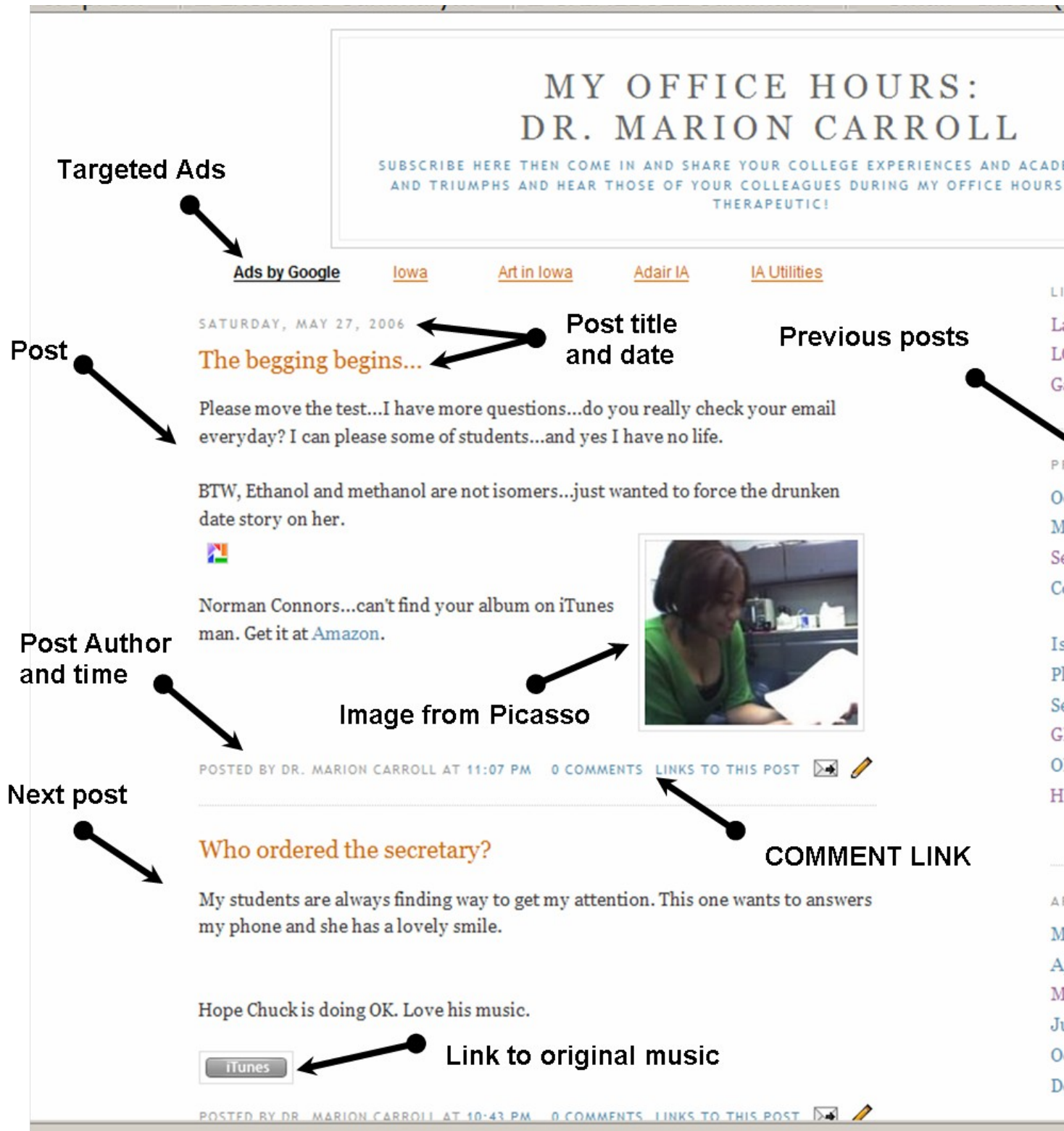
Experiential Flowchart

Users interact with the blog as they would any web page. Contents are in chronological order from top to bottom. Each post contains a link to past posts and a comment link. This enables the user to respond with

immediate feedback simply by clicking the comment link.

Interface Mock-ups:

My Office Hours

Targeted Ads

MY OFFICE HOURS:
DR. MARION CARROLL

SUBSCRIBE HERE THEN COME IN AND SHARE YOUR COLLEGE EXPERIENCES AND ACADE
AND TRIUMPHS AND HEAR THOSE OF YOUR COLLEAGUES DURING MY OFFICE HOURS
THERAPEUTIC!

Ads by Google   Iowa   Art in Iowa   Adair IA   IA Utilities

SATURDAY, MAY 27, 2006

Post title and date

Previous posts

Post

The begging begins...

Please move the test...I have more questions...do you really check your email everyday? I can please some of students...and yes I have no life.

BTW, Ethanol and methanol are not isomers...just wanted to force the drunken date story on her.

Norman Connors...can't find your album on iTunes man. Get it at Amazon.

Image from Picasso

Post Author and time

POSTED BY DR. MARION CARROLL AT 11:07 PM   0 COMMENTS   LINKS TO THIS POST

COMMENT LINK

Next post

Who ordered the secretary?

My students are always finding way to get my attention. This one wants to answers my phone and she has a lovely smile.

Hope Chuck is doing OK. Love his music.

iTunes   Link to original music

POSTED BY DR. MARION CARROLL AT 10:43 PM   0 COMMENTS   LINKS TO THIS POST

Hardware Inventory:

Computer with internet connection (broadband best)

Blogger account or weblog application

Audacity or audio/video presentation recording program

Powerpoint

Audio/video editing software

Audio and video recording devices

Server space account (Archive.org) for hosting audio and video files (YouTube.com optional for video)

Content is original and assigned a Creative Commons tag. References and credit is given to content that is not that of the owner.

Skills Assessment:

Web navigation

audio/video recording and editing

Some HTML familiarity

Student engagement

Implementation Plan:

The recordings of MOH are spontaneous and require a large degree of editing. It is important to me that private names and locations are not revealed unless it is in the context of a complement or that of a public figure. This is a bias of choice because of obligations to the University and to student/faculty privacy. This is not a tabloid but spontaneous conversation will usually contain some venting of frustrations that lead to accusations or expressions of dislike for one student or teacher. This type of editing takes some time. Additionally a "hook" is added to by layering a few seconds of a popular music track that usually conveys the theme of a 10-15 minute podcast.

1. Editing a single audio file (2 hours).
2. Steps to creating and uploading content to Archive.org (5- 20 minutes).
3. Steps to making available on the Blog and in iTunes (10-15 minutes).

Total hours for audio production work:

   2.5 hours hands on time/post.
 <u>x 5 audio post per semester</u>
  12.5 hours total per semester

    1 posts prepared every 2 weeks
<u>x   2.5 hours editing, encoding and RSS</u>
    1.25 hour of audio file prep/week

Time Tables:

The audio-blog entitled <u>My Office Hours</u> is an ongoing work and has capture over 20 conversation in my office to date. The quality of recordings are improving as I try increasing recording levels, improve mic quality and positions and also reduce background noise. Reducing noise is a challenge as my office remains open during podcasts to allow students to traffic in and out and as a matter of student/teacher etiquette.

<u>My Office Hours</u> interface has changed over the past 10 posts. In trying to make the Blog educational and entertaining I have included links to interesting web content and have posted opinion on current events. I try maintaining my link to my educational content by posting study sessions and links to course content. I want to create a perpetual online audio/video yearbook with archives available offline for graduating seniors to take with their traditional yearbook. After many years and great distance the hope is that these alumni will be able to visit, listen, reminisce and realize how far they have come. It will also give the next freshman class the opportunity to experience a little of the trials and triumphs of college life that they may face on the campus of Xavier University of Louisiana in <u>My Office Hours</u>.

Evaluation Plan:

The <u>My Office Hours Podcast</u> is designed to drawing student's attention. Enabling students the means to

express themselves and to listen to the expressions of others is expected to be informative and entertaining. It also acts as an educational tool through links to compelling study aides and lecture supplements. To evaluate this tool and its effectiveness in delivering fluid and informative discussions in a non-intimidating way it would have to determine if the finished product is accepted and received as such. "Comment links" provide for feedback from users but can not be considered rigorously evaluative in nature. Comments are usually a reflection of another's opinion about the topic of the Blog not on the effectiveness of the Blog style, content organization or distribution. Blog downloads and views are more a reflection of the acceptance of content, style and presentation. These statistics can be determined by tools that analyze the activity on the blog. Three are listed that will be used to monitor users of My Office Hours by feeding back activity on a weekly basis. This activity will be measured over time from a baseline of zero to gauge the effectiveness, utility and approach in creating and disseminating compelling content in My Office Hours. Each of these analysis tools function behind the blog with no interference from author or users.

My Office Hours Monitoring Software:

Google Analytics

FeedBurner

ClusterMaps

Biochemistry Class Notebook

Rich Media Project
Design Document
Dr. Marion Carroll
Spring 2007

Executive Summary:

The Rich Media Project entitled Biochemistry Class Notebook is especially implemented and designed to support the Introduction to Biochemistry course content presented by the faculty. This media provides the student a summary of content covered in lecture concurrent to the lectures in a succinct and illustrated 10 minute audio/video presentation.

Statement of Purpose:

What will I do?

In my experience and without exception student attendance and participation in class is never consistent. Although most professors frown upon those students who are frequently absent from class for one reason or another, it should not necessarily be taken personally or as a sign of indifference resulting in indiscriminate marks or penalties on the student's "course" performance. Of course where there is a course requirement for attendance there should be a penalty, but this should not be the case where attendance is "recommended" but not required. Carroll's Notebook has as an objective to fully function as an independent and comprehensive source of course lecture material for the entire class over the semester.

The effort made lecturing to the class is not expected to be impacted in a negative way by the availability of the audio/video content. This content will become available

after the lectures are completed. In this way topics for the "Notebook" that were covered in lecture and that may need further explanation will only be available. Content covered and difficult areas may differ from class to class so the Notebook content will be submitted based on a cutoff for that particular class or topic for that class. The distinction between Carroll's Notebook and an online course is the personal connection that students enrolled in the class will make to the content after having heard much of the material during the class earlier in the week.

How will I record it?

Recording content for the Notebook take a little time. It is recorded in real time so in about 15 minutes I have a >100 MB audio/video file. Camtasia is my choice of software along with a USB ACECAD Flair II GT-504 graphics tablet. After recording,Camtasia allows editing of length, sound quality, excessive background noices, or presentation pauses or mis-statements before creating a WMA, MOV (Quicktime) or any other media file for delivering the content to the web. The original file is never lost.

1. Steps to recording video lectures (30 minutes):
2. Steps to editing video (1 hour):
3. Steps to storing or archiving video lectures (1 hour cpu upload time):

Students will be expected to learn the basic principles of biochemistry. Primary text (required): Fundamentals of Biochemistry, Life at the Molecular Level 2nd Edition, 2006, Donald Voet, Judith G. Voet and Charlotte W.

Pratt. The traditional lecture format is maintained with supplemental materials supplied in class and on Blackboard. Tests and quizzes are administered in class or on Blackboard throughout the semester. Office hours are also set for student visitations with questions and concerns.

Students are often concerned about missing topics covered in lecture either due to their inability to hear or write sufficient information or because of their inability to take good notes, or simply because of not making it to class. I have provided in the Biochemistry Class Notebook blog a means to support those students who struggle on their own with note taking or who just need to hear the important points again. While serving these students' varying needs I am also preserving the my investment by taking advantage of the blog format to create a digital record or archive of lecture material covered. This may be used later in the process of constructing testing material, homework assignments or as reference material in future lectures.

Course Outline:

All of the Roman numbered topics will involve an inclass lecture. However, each of the color coded subtopics may also be covered by a video. Each color represents a different video with the intention of review the subtopic for the classes clearer understanding. If a subtopic is understood by the class the majority of the class then there will be no video produced. Therefore, the total number of videos produced will be determined by the needs of the class for subtopic coverage so the total

number of videos produced may be more or less the number indicated by the different colors.

I. Life, Evolution and Thermodynamics

    1.   Thermodynamics (MOVIE)

        A.   The First Law of Thermodynamics: Energy is Conserved

        B.   The Second Law of Thermodynamics: Entropy Tends to Increase

        C.   Free Energy

        D.   Chemical Equilibria and the Standard State

        E.   Life Obeys the Laws of Thermodynamics

II. Water, pH and functional groups

    1.   Chemical Properties of Water

        A.   Ionization of Water

        B.   Acid-Base Chemistry

        C.   Buffers

III. Protein characteristics

    1.   Amino Acid Structure

A. General Properties

B. Peptide Bonds

C. Characteristics and Classification

D. Acid-Base Properties

E. A Few Words on Nomenclature

IV. Protein Function and Characterization

1. Myoglobin (MOVIE)

   A. Myoglobin Structure

   B. Myoglobin Function

2. Hemoglobin (MOVIE)

   A. Hemoglobin Structure

   B. Oxygen Binding to Hemoglobin

   C. Mechanism of Oxygen-Binding Cooperativity

VI. Enzymatic Catalysis

1. General Properties of Enzymes

   A. Enzyme Nomenclature

   B. Substrate Specificity

   C. Cofactors and Coenzymes

2. Activation Energy and the Reaction Coordinate

3. Catalytic Mechanisms

   A. Acid-Base Catalysis

   B. Covalent Catalysis

1. Monosaccharides

    A. Classification of Monosaccharides

    B. Configuration and Conformation

    C. Sugar Derivatives

IX. Biological Membranes

1. Transport Across Membranes

    A. Thermodynamics of Transport

    B. Mechanisms of Mediated Transport

    C. ATP-Driven Active Transport

Navigation Options:

The blog format has been chosen from a number of templates freely available. Its style and useability allows easy navigation through present and past content, link outs to relevant web content for supportive learning tools and information and interaction throught the comment links.

The blog style has minimal navigation in mind. Each post will present a short statement of content and direct access to viewing lecture material below each description of the content to be covered. Content may be

downloaded directly to the desktop by simply clicking the title and selecting "download". Downloads are also available for free through the iTunes Music Store Podcast library or through any RSS reader capable of searching for RSS content on the web using relevant search terms. Comments may be posted by name or anonymously by clicking the (comments) link directly below each video.

Within the margin of each page will exist short descriptive links to lectures posted at different times. This will make it easier to jump from one lecture summary to another without the need to return to the homepage. This is another advantage of the blog format.

Interface Screenshot:

Carroll's most recent lectures appears at the top of the blog page with archives on the left that link to older posts and links to additional content and resources.

The Notebook blog contains:
Date
Title/Description
Audio/video
Author/comment link

Biochemistry Class Notebook

Research Lab members and students now have 24 hour access to one another and Dr. Carroll. Post here comments,
Research Lab. Resources for Organic Lab will soon be included. Use this often. The more we communicate...the mor

Links

Social News
Xavier University
Chemistry Department

POWERED BY

MY YAHOO!

Add to Google

MY AOL

Subscribe to Dr. Carroll's Notebook

archives

5/21/06 - 5/28/06
5/28/06 - 6/4/06
8/6/06 - 8/13/06
8/20/06 - 8/27/06
10/1/06 - 10/8/06
1/7/07 - 1/14/07
1/14/07 - 1/21/07
1/28/07 - 2/4/07
2/11/07 - 2/18/07
2/18/07 - 2/25/07
Current Posts

My Office Hours: Dr. Marion Carroll

- Dr. William Duax, Crystallographer, Sage, Rapper, ...

February 16, 2007

Dr. Duax traveled from Buffalo, NY to visit family and

Published date

RSS feeds

Archive of past postings

Ads by Google

Thursday, February 15, 2007

Titl

Condensation 101

OK folks. After your horrible performance on Exam 1 I thought I wou
condensation of amino acids. It's not that tough!

posted by Dr. Marion Carroll @ 2:18 PM 0 comments links to this post

I Power
Blogger

"comr

author

Links to "My Office Hours"

Hardware/Software Inventory:

Computer with internet connection (broadband best)

Blogger account or weblog application

Camtasia or audio/video presentation recording program

Powerpoint

Audio/video editing software

USB Drawing pad/pen for annotating the subject matter.

Audio and video recording devices

Server space account (Archive.org) for hosting audio and video files (Youtube.com optional for video)

Skills Assessment:

Biochemistry

Web navigation

audio/video recording and editing

Some HTML familiarity
RSS creation software.

Implementation Plan:

How will I create this content?

There are several means of delivering the content to my students. What has served me best so far is YouTube, Archive.org and iTunes. Each of these web servers deliver content free to anyone on the web. Carroll's Notebook at www.carrollslab.blogspot.com provides for access to all content from the web independent of secured University portals.

1. Editing audio and video (1 hour 35 minutes)
2. Steps to encoding videos (20 minutes)
3. Steps to creating the RSS feed (5 minutes).
4. Steps to making available in iTunes and/or YouTube (see CPU uploading time).

Total hours for video production:

   2 hours hands on time/lecture.
<u>x19 video lectures per semester</u>
  38 hours of total semester work

With release time I expect to prepare 3 videos/week. Without release time I expect that only about 2 video/week.

   3 lectures prepared per week
<u>x 2 hours editing, encoding and RSS</u>
   6 hours of video lectures prep/week

Time Tables:

It is anticipated that audio/video content will begin to roll out in August 2007. Some video content has been

prepared. New content will be added as appropriate for the material covered and how students respond to the subject matter during the course of the semester. The following outline is anticipated to be completed by December. January 2008 would then be reserved for assessment of the impact this rich media has had on student learning.

Evaluation Plan:

The main objective of this project is to train students in the fundamentals of biochemistry, a subject central to any field of healthcare. This project is to facilitate personal/private teaching and tutoring and is not to take the place of traditional lectures. As a consequence our evaluation plan must have two main components:

1. Analysis of student comprehension and retention of the material taught.

2. An assessment of the impact this rich media has on student performance.

3. What did the students think of the availability of video summaries.

1.   As with any evaluation it will be necessary to get input from the students. This is accomplished by a simple survey using a list of questions designed to determine their collective engagement in the learning process and how they valued their course and instructor throughout the lecture.

A major contribution to improving my teaching and evaluations came after getting involved with the Learning Centers for Stem Academic Achievement. Within this group I learned to apply group exercises, motivate student participation in discussion groups and evaluate my effectiveness in the classroom. Our primary source of instruction in teaching and learning strategies came from the Educause publication, "Educating the Net Generation", by Diana and James Oblinger, Edt. The evaluation of my effectiveness and views of the subject matter by the student as outlined by Oblinger were valuable for me for improving classroom interactions. It gave me an objective view of the class and a way of monitoring my progress. The example below is a sample of several layers of qualitative and quantitative data on my lectures and lecture material developed by application of a scoring matrix:

Procedure:

1.   Administer a before and after questionnaire from which is formed a matrix to calculate correlation data.

2.   Correlation data is tabulated to compare specific independent qualities of the lecturer and the learners and what is most affected by them.

3.   What are the most relevant qualities that can be quantitated by this data to facilitate direct action to

target changes in the correlation for better consequences to the learners' outcome.

QUESTIONS	TERM BEGINS	TERM END	% TERM BEGINS	% TERM END	SDev
course so far…					
Excellent	4	4	5.63	8.89	2.30
good	33	15	46.48	33.33	9.30
average	29	19	40.85	42.22	0.97
poor	3	6	4.23	13.33	6.44
very poor	2	1	2.82	2.22	0.42
RESPONDANTS	71	45	100.00	100.00	

instructor so far…

Excellent	10	5
14.08	12.20	1.34
good	37	14
52.11	34.15	12.70
average	24	16
33.80	39.02	3.69
poor	0	5
0.00	12.20	8.62
very poor	0	1
0.00	2.44	1.72
RESPONDANTS	71	41
100.00	100.00	

SAMPLE OF CORRELATION SCORING MATRIX:

BEGIN

END

	course so far	instructor so far
course so far	instructor so far	
Work you put in		0.6190
0.4232	0.990	1.000
Involvement in class		0.8404
0.6943	0.945	0.893

Knowledge gained		0.3090	
0.0835	0.130		0.736
course objectives clear		0.9780	
0.9998	0.727		0.812
assignments support objectives		0.9150	
0.9830	0.653		0.748
reading appropriate		0.9498	
0.9962	0.587		0.689
reading and writing comparable		0.9911	
0.9953	0.955		0.907
clear answers		0.9727	
0.8939	0.912		0.850
considerate		0.6803	
0.8298	0.487		0.599
enthusiastic		0.9951	
0.9914	0.997		0.978
Effective		0.8286	
0.6787	0.804		0.718
course so far		1.0000	
0.9556	1.000		0.992
instructor so far			
1.0000			1.000

Highlighted are some of correlation values from which significant information can be drawn. They thoroughly read the text and ask questions. As with most courses

students are optimistic about the knowledge they have and will gain at the beginning of the semester. As the material unfolds however many students find the content somewhat overwhelming and reading of the material is reduced thus lowering the correlation of reading to how information in the course is viewed (0.949 to 0.587). Also the instructor cannot be held responsible for knowledge brought in at the beginning of the term, however the effectiveness of the teacher is reflected in the correlation value at semesters end (0.0835 to 0.736).

The Correlation Scoring Matrix is much larger than this sample, correlating various aspects of teaching and learning and can be expanded. Of curious note, a negative correlation has been seen between knowledge gain in the course and how "considerate" the instructor is to the students (data not shown). Data to date are for one semester so a considerable amount of information can be gathered to assist this professor in improving teaching and learning in very specific ways over the course of several semesters. This data reflects well the mandated University Faculty/Course Evaluations for this same semester; Spring 2005 overall rating = 3.75/5.00

2.   The "Notebook" is to be a tool to enhance student learning so the value added as students use this tool needs evaluation. There are a number of means to track usage. "Webstats" are built into the web hosting software and include page views, downloads and date stamps. Since views are not exclusive to students only the "comments" link can be restricted to class participation and may become

vital to assess the real-time usefulness and impact of the content on student learning.

Each separate post has a link called "comments". This link displays a window in which students may leave identified or anonymous posts. These posted can be set to enable all participants to view or set to be viewed by the administrator only. It is my desire to use the comments link to collect opinions about the course and how the rich media has effected their performance in the course.

Throughout the semester clues to the answers to quiz or test questions will be provided in the videos to encourage participation. My expectation is that once students begin to use the media they will come to expect it to support their regular study routines.

3. This project was created to be able to have an impact on student learning by creating short video segments of the difficult topics to enhance the student's retention of the information, to provide alternative sources for notes and study aids and to maintain a record for future reference by the student and teacher. Are these videos viewed by students as useful or a distraction, helpful or confusing, supportive or distructive?

In addition to "comment links" inherent in the blog format there will be a <u>questionaire</u> adminstered within the blog to measure the value that every student has placed on the video content provided. I will require the completion of this questionaire to determine the number

of students who valued the content and the availability of the video and audio lectures. I expect these video will be benefitial to those who participate but will not harm anyones performance if they choose not to.

David's concern:

One question/concern: If I'm reading this correctly, anyone in the world will have access to these lecture clips. Is that true?

If so, this raises an issue of intellectual property. What's to prevent chemistry teachers at other universities to send their students to Dr. Carroll's lectures to supplement their learning? Or, in a worse-case scenario, an online instructor at the U. of Phoenix could simply create a syllabus with a series of lin ks to th nd collect tuition--effectively stealing the intellectual property of Dr. Carroll and, in an indirect but real way, of Xavier University.

Why do we expect students to pay tuition to come to Xavier? Because we offer quality instruction that, presumably, they can't receive at many other colleges and universities, especially those with lower quality programs and faculty.

Is there a way to deliver this content through Blackboard, effectively limiting it to XU students?
If not, we might need to seek consultation from others (the VPAA for Academic Affairs; university lawyer, Dr. Francis) on this topic.

Anyway, that was my main concern. My other concern is that this is an ambitious project--and release-time, for now at least, is drying up. How will he find the time to do all this editing?