E-CLASS: Creating a Guide to Online Course Development For Distance Learning Faculty

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"I've been hearing a lot about Distance Learning, lately. I think I'd like to try that out," said the English professor.
"Great," responded the department chairperson. "We need to enter that market and provide access to a new audience of students. I'm glad to hear of your interest."
"So, what do I do now? How do I go about creating my class online?" the professor asked.
"Uh . . . . Uh . . . . Let me get back to you," stumbled the chair.

If this is the way your school handles emerging technology issues, join the club. Generally speaking, most colleges and universities are not prepared to deal with electronic education issues efficiently. Rarely have schools developed strategies regarding Distance Education standards, policies, or procedures. They are often stumped by how to effectively help faculty design courses, plan distance education programs (Rockwell, et al. "Incentives"), and/or determine acceptable standards for technology requirements. In fact, at Johnson County Community College, the Distance Learning Coordinating Committee determined that the following constituted barriers to successful online education (Table 1):

Table 1: Barriers to Successful Online Education

Planning	• No specific plan regarding online degrees and certificates
Coordination	• No identified leader/owner of campus-wide DL efforts • Resources not connected • Perceived competition between administrative areas • Earlier DL committee ideas were not implemented or communicated across campus • No information manual
Student Support	• No DL student orientation • No DL career planning • Not seamless registration • Insufficient online technical support

Faculty Concerns	- Insufficient online technical support - Insufficient support for development of DL courses - Uncertainty regarding ownership of DL course materials - Uncertainty about released time and/or pay for development of online courses - Uncertainty about workload issues
Market Research	- Unsure of who constitutes the DL audience - Uncertain about how to accommodate the unique learning needs of DL students
Marketing Techniques	- Lack of marketing - Inconsistent marketing approaches
Access	- No single DL web site portal with all relevant information in one place - Lack of easy access to information
Evaluation	- Lack of student evaluations geared toward online classes - Lack of quality control for continuous product improvement - Lack of ongoing research on quality, retention, and effectiveness
Standards	- Wide diversity of technological methods of instruction - No standards for acceptable download time - Inconsistent look of course - Lack of published guidelines for course development - Lack of pedagogical models

This article does not purport to solve all of the above challenges. Instead, I plan to focus on solutions to several of the teacher's needs: pedagogical models and published guidelines for course development. As Melanie Clay states, "There is arguably no area more important to distance learning administrators than that of training and support for distance educators" ("Development" Fall 1999 - Volume 2, Number 3). She continues, stating that faculty need "web-based tutorials" and "printed materials" to help them go online (Clay). In "Needs, Concerns and Practices of Online Instructors," the authors confirm this opinion, saying that to aid faculty who might want to take their courses online, colleges need to "Provide more detailed, understandable instructional materials" (Kenzie, et al).

In response to requests from my college's Dean of Faculty, I developed a PowerPoint manual to help faculty design their online courses. Specifically, I suggested that faculty include several key components in their online courses, employ the E-CLASS model for course development, and factor in precise design traits.

Key Web Site Components

No two web sites will be the same, anymore than two professors will teach exactly the same way. However, most web sites should contain similar information to benefit the students. The consistency of web site design is important for two reasons. First, a consistent design for a college or university's web offerings is important to help students navigate numerous courses. For instance, if a student is taking two or more distance learning courses and encounters a different online design in each class, that student will potentially have trouble learning how to find assignments, meet deadlines, and complete the course requirements. Instead, a consistent design for a school's online course offerings would help that student when he or she shifts attention from class to class. Second, all online courses should contain certain key components because these components are necessary to ensure the students' successful course completion.

To accomplish these goals, I advise faculty to consider adding the following to their online class's web sites:

- Welcome page
- Syllabus
- Calendar of due dates
- Resources

None of these are spectacularly unique, but they are all mandatory components which should not be overlooked. The **Welcome Page** provides a "front door" for students. This page is a "virtual" greeting as they enter the online class. After all, in an on-campus class, faculty can see the students as they enter and students can see faculty. The same "personalization" should exist online. However, online, a depersonalized environment can occur unless we do something to avoid this potential pitfall. More importantly, the Welcome Page answers students' questions and provides them the information they need to succeed in a class without walls; without other students to ask questions of; without face-to-face instruction; and without literal, faculty-led guidance. In this Welcome Page, faculty should include at least the following:

- Instructor information-a photo, office/hours, email address, and phone number
- Any hardware/software/plug-in requirements
- Required texts
- Hints for success in this class
- ADA compliance information

The above information should be conveyed via a welcoming, friendly tone to reduce the anonymity and inherent coldness of an online course. I suggest that faculty include a graphical link to this Welcome Page (Figure 1).

Figure 1. Welcome Page Icon
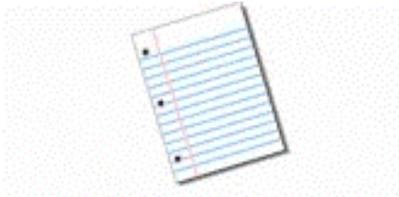
Welcome! (Read me first)

Then, within this link, faculty should write something like,

> "Welcome!-Let me help you get started in your Internet Algebra course. This link will
> tell you what to expect, which books you'll need, and how to get in touch with me.
> Then when you're ready to start, just click on . . . ."

Not only will this be a pleasant welcome, but it might save you and the students time by answering commonly asked questions. Here are a few examples for you to look at which further clarify my intent:

http://webct.jccc.net/public/82962
http://webct.jccc.net/public/82543

The **Syllabus**, just like those which we hand out on our first day of class, should include the course description, course objectives, caveats, requirements for completion (number of assignments, grading rationale, points assessment, etc.), and evaluation methodologies. This might go without saying, but my rule of thumb is that until we tell our students what we want or expect, they don't know. The Syllabus allows us to clarify these key concerns.

Next, in an on-campus class, we'll remind our students week by week when assignments are due. But online, we probably won't want to email them this reminder-over and over again. So how do we ensure that assignments are submitted when they're due? Provide a **Calendar with Hypertext-linked Due Dates**. This not only allows the students to see what's due and when, but the hypertext links let them go directly to the required assignment screen (see Figure 2).

Figure 2. Calendar with Hypertext Links

Finally, we should provide our students a **Resource Page**, online access to whatever additional tools they'll need to succeed in the class. These could include plug-ins, downloads, campus help lines, links to the community or college libraries, and/or links to web sites related to your class or subject matter.

The E-CLASS Model

The above key components are prefatory material needed to give students basic information about a course-essentially online paperwork and introductory, first week lectures. Once these mandatory components are in place, it's time to teach the class. How can we structure any and all online courses, regardless of discipline, to achieve a consistent design as well as a successful distance learning class? I suggest following the E-CLASS model, which can be applied to a unit of instruction and/or individual assignments. E-CLASS is an acronym for

> **E** = Explain
> **C** = Clarify
> **L** = Look
> **A** = Act
> **S** = Share
> **S** = Self Evaluate/Submit

Employing a consistent educational structure for each course is very important when teaching online. In a traditional, on-campus class, students can ask questions when they are confused. Similarly, faculty, when viewing a classroom of glazed eyes or fidgeting bodies, can stop and clarify what appears to be confusing. This can entail providing additional examples, supplying more detail, answering specific questions, or adding more precise guidelines for completing an assignment.

However, online, we won't see their glazed eyes, fidgeting bodies, or upraised hands. Worse, if content is confusing, we might have to answer dozens of the same questions, over and over again. To avoid these problems, faculty teaching online must be infinitely more organized in preparing their classes-more proactive and less reactive. E-CLASS is intended to help teachers develop their online courses by providing a systematic, sequential procedure, as follows:

Explain. An assignment or instructional unit begins here. This is the place to provide an overview for the assignment. This could include a rationale of

- what's to be discussed
- the context in which this assignment fits
- a scenario to personify the assignment
- an explanation of why this topic is being introduced
- the historical perspective in which this assignment fits

Essentially, *E* represents *why* the student is being asked to do the assignment and what the student is being asked to do. This should apply to any discipline. For example, if I were teaching a technical writing course, as a lead-in to an assignment, I could suggest a scenario:

> "Here's the scenario. You are the boss of a company. Your company sent a sales letter (assignment #1) to a prospective customer. The customer responded with a letter of inquiry (assignment #2) asking for additional information about your company's product or service. Let's pretend that one of the questions was about your company's web site. Uh oh! Your company doesn't have a web site yet. You're out of sync with cyberspace. As a boss, you realize that your company must update its services by offering customers information on the net. You, of course, won't create this web site. Your job as a boss is to delegate authority.
> Write a memo down to your subordinate(s) (this could be a memo to one individual, to numerous individuals within one department, or to numerous individuals in various departments--your choice). In this memo, delegate authority--direct the subordinate(s) to create a web site, but be specific. List in the memo's body 5 exact components or aspects of this web site that they must include."

Thus, the scenario sets the scene and puts the assignment in perspective.
Similarly, if I were teaching Math, Accounting or Economics, I could begin with a business-related scenario to preface an assignment, to put the new topic being discussed in a real-world context.

Clarify. Here you move from the general concept (scenario or context) to the specific details. This could include any of the following (determined by which course you teach):

- readings required
- math concepts conveyed
- accounting principles used
- physics laws employed
- criteria for the upcoming essay

The *C* represents what exactly is being taught in this unit of study.

Look. Next you allow students to review examples or samples (essays, math problems, chemical equations, art projects, etc.) that model what's being taught.

Basically, **L** equals "here's what I mean." You could accomplish this with any of the following:

- Whiteboard activities
- CD-ROMs for videos
- Audio lectures or recordings
- Student presentations which clarify a topic
- Image databases (for art, historical photographs, or biology slides)
- Acrobat Reader presentations of math problems and solutions or sample essays

Act. This segment of the assignment encourages the students to practice what's being taught. Rather than merely being passive observers in a cold medium (as Marshall McCluhan would have said), an online class can and should actively engage the students. After all, this isn't television. To achieve this interaction, students could

- Write rough drafts
- Solve sample equations
- Participate in labs
- Write lab reports
- Complete problem sheets
- Create student presentation

A equals the hands-on workshop.

Share. At this stage of the sequence, it's time to create a community of learners. Perhaps this is the ultimate challenge of online education. "Some studies reveal deep doubts among students and faculty that distance learning ever can have the degree of interaction in a non-distance environment" (Roblyer and Ekhaml). Student interaction is more easily achieved in class, on campus. You see them sitting there, you put them into small groups, you assign them a topic to discuss, and then you watch them do it. There are fewer problems when you have a captive audience. However, what do you do when students are separated from you and each other by miles? How do you achieve interaction when some students do their school work at 2:00 in the afternoon, while others complete their projects at 2:00 in the morning? Though Distance Learning courses make class interaction difficult, it's still very important to have students share and exchange. Through sharing, their education grows exponentially as they learn from each other. Thus, a Distance Learning web site should encourage students to:

- email each other
- participate in chat rooms or discussion listserves
- peer evaluate each other's work
- reflect through journal entries
- engage in team projects or labs

The *S* simulates a classroom's interaction.

All good things must come to an end. That leads to the final element of an assignment or the educational unit. *Self-evaluate* and *Submit*. Once students have received feedback from others, they can evaluate their own work, perhaps by referring to a criteria checklist, then submit the work (essay, test, quiz, exam, answers to math problems or chemical equations, etc.) to the professor for a grade. With this final *S*, the specific assignment is completed. Then it's on to the next one, following the same sequence.

Design Traits

E-CLASS helps you structure individual assignments or an instructional unit. But how can you make sure that assignments flow logically from module to module? How can you keep your students engaged while they stare blankly into a monitor? What should your entire online class web site look like visually? Consider these final suggestions:

Sequence

It's easy for students to get lost in cyberspace. (Actually, students new to a campus easily can get lost traveling from the science building to the cafeteria.) A Distance Learning class introduces students to a new and possibly very unfamiliar landscape. Once again, in class, faculty can guide students with constant reminders-notes on the board, handouts, verbal cues. Online, however, where they can't see us and we can't see them, and where they're confronted with new graphical user icons, what's to keep our students on task? To keep them on track, be sure that each Distance Learning assignment follows a consistent sequence. This could entail nothing more than:

- Numbering the steps that students must follow to complete an assignment
- Providing a hypertext link at the end of each step, leading the students to the next required action

Remember: whereas a sequence of events is clear in class due to your lectures, it won't be as clear online. They need your guidance. Figures 3 presents an example:

Figure 3. Numbered Steps to Sequence an Assignment

Step number 2 above provides the students Criteria for an assignment. Once the students reach the end of this Criteria page, they read the following: "To get a better idea about what this assignment requires, look at the <u>Sample Letter of Inquiry</u>." This hypertext link leads the student to the next step. Then, at the end of this sample, the students read, "Now that you have a better idea of what to write for this assignment, follow the <u>Writing Process</u> (prewrite and write a rough draft)."

Thus, hypertext links guide them through the process, ensuring a sequence of events and ensuring that they are not lost in cyberspace.

Pace

Do you just lecture in class-hour after hour, day after day . . . talk, talk, talk? Of course not. That would drive your students crazy. They need variety. Pace is also important online. Rather than only supply text, text, and nothing but text, each assignment should provide a mix of the following (for example):

- Lecture notes, *followed by . . .*
- A Whiteboard example, *followed by . . .*
- A visual (table, photo, picture, sample, etc.) or an audio, *followed by . . .*
- Readings, *followed by . . .*
- Online chats, *followed by . . .*
- Quizzes

Figure 4 shows what pace looks like online:

Figure 4. Pace (online variety)

WebCT

MYWEBCT | RESUME COURSE | COURSE MAP | HELP

Hide Navigation, Expand Content

ENGL 241 British Writers

Home ‣ **Course Modules** ‣ Module 1: Medieval Literature

Course Menu
Homepage
e-Learning Hub
Mail
Course Modules
Calendar
Discuss Works
Quizzes and Tests
Student Homepages
Office Hours Chat

Read the Material   Do the Assignments   Discuss the Material

Take the Quiz   Office Hours Chat

Good teaching demands variety to keep students involved and challenged. In an on-campus class, I consciously strive to mix and match activities (lecture, hands-on workshops, group interactions, short quizzes, etc.) to keep my students enthusiastic. The same concern is important, if not more so, online. Students should not be asked merely to sit and stare at a computer monitor reading a wall of words. Imagine how dull that would be. Instead, we should engage as many of their senses and learning strategies as possible.

Layout

A similar concern, one which will help achieve the previous aspect of pace, is the physical layout of your web site. We're talking about Document Design here. In other words, how does your online class appear visually (or "appeal" visually)? Of course, your content is what's most important, but visual appeal will either help or hinder your reader's ability to access that content. Since you have a choice, choose HELP vs. HINDER. How can you use Layout to help your students? Try these design techniques:

- Use lots of white space and short paragraphs vs. "wall-to-wall words."
- **Boldface** important points.
- *Italicize* key concerns.
- Use headings and subheadings to guide your readers.
- Use color (sparingly) for emphasis
- Use graphics for visual appeal, to exemplify key ideas, and to break up the monotony of text, text, and more text.
- Use bullets to create short paragraphs.
- 1. Number steps or prioritized ideas.

The use of highlighting techniques for page layout isn't a dumb game or a cosmetic waste of time. If you dump upon your reader nothing but words, he or she might not read what you've written or be

able to access the most important points you've tried to emphasize. Sure, you'd like to assume that it is the student's job to read the text and find what's important, and not your responsibility to make his or her task easier. But, reading online is a challenge.

Reading a book is easier than reading anything online. For example, when we read a book, we hold that book either horizontally or at approximately a 45° angle. In contrast, a computer monitor sits at an awkward, almost vertical 90° angle, atypical for reading purposes. Next, paper absorbs light; monitors reflect light, a problem we've all encountered when our computers are placed opposite a window. These facts create reading challenges. To help our students succeed in an environment somewhat hostile to reading, you can use highlighting techniques to improve page layout.

Figures 5 and 6 are examples of successfully designed web pages for online education:

Figure 5. Layout-example using boldface, headings, short paragraphs, and bullets

Figure 6. Layout-example using a table

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┌─────────────────────────────────────────────────────────────────────┐
│  ◎ http://webct.jccc.net/...s/student/serve_page.pl          回⊟      │
├─────────────────────────────────────────────────────────────────────┤
│   ◁       ▷       ✕       ↻       ⌂       ✎       🖨       ✉          e │
│  Back   Forward  Stop  Refresh  Home   AutoFill  Print   Mail         │
├─────────────────────────────────────────────────────────────────────┤
│  Address  ◎ http://webct.jccc.net/SCRIPT/90756/scripts/student/serve_page.pl?972050011+new10-20/WINDOW  ▶ go │
├─────────────────────────────────────────────────────────────────────┤
│  [Close]  [Back] [Forward]                                       ▲    │
│                                                                  ▼    │
│                                                                       │
│        ┌───────────────────────────────────────────────────┐         │
│        │                   Table 2                          │         │
│        │                                                    │         │
│        │    HORMONES THAT REGULATE BLOOD GLUCOSE            │         │
│        │                                                    │         │
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Hormone	Gland Of Origin	Affect On Blood Glucose	Time To Effect Change
Insulin	Pancreas (Beta Cells)	Decreases	Immediate
Epinephrine	Adrenal Medulla	Increases	Minutes
Glucagon	Pancreas (Alpha Cells)	Increases (Opposite Of Insulin)	Minutes
Cortisol	Adrenal Cortex	Increases	Hours
Growth Hormone	Anterior Pituitary	Increases	Hours

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│  ● Internet zone                                                      │
└─────────────────────────────────────────────────────────────────────┘
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These examples (with short paragraphs and limited page lengths) allow students to read and digest small "chunks" of information. In addition, the boldface headings act like sign posts along a road, guiding the students from idea to idea. Here's another way of looking at it: the boldface headings emulate your raising your voice in class to highlight a key point; the bullets, in effect, simulate your pointing your finger to underscore the significance of an idea.

Conclusion

There's no one way to teach any class, on campus or online. What has been presented in this paper merely represents possible options for structuring and designing your Distance Learning offerings, two of the "five highest faculty information and training needs" as reported in "Faculty Education, Assistance and Support Needed to Deliver Education via Distance" (Rockwell et al.). As the adage goes, "we don't progress backwards." Distance Learning isn't a passing fad; it's here to stay. Successful (and adventurous) teachers need to learn how to translate their classroom skills into a new and exciting delivery medium.

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